2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS)

Data File Documentation

DECEMBER 2020

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NCES 2021-176
U.S. DEPARTMENT OF EDUCATION

IES Institute of Education Sciences

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December 2020

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This report was prepared for the National Center for Education Statistics under Contract No. ED-IES-09-C-0039 with RTI International. Mention of trade names, commercial products, or organizations does not imply endorsement by the U.S. Government.

Suggested Citation
Bryan, M., Caperton, S.A., Cooney, D., and Dudley, K. (2020). *2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS) Data File Documentation* (NCES 2021-176). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved [date] from https://nces.ed.gov/pubsearch/.

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Executive Summary

The 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12), conducted by the National Center for Education Statistics (NCES) at the U.S. Department of Education, is a longitudinal study of students who first began their postsecondary education in the 2011–12 academic year. The BPS:12 cohort of first-time beginning students was identified as part of the 2011–12 National Postsecondary Student Aid Study (NPSAS:12). To supplement data obtained from a variety of sources in other BPS:12 data collections, the BPS:12 Postsecondary Education Transcript Study (PETS) was conducted to gather detailed, reliable data on many aspects of student postsecondary experiences.

Data Collection Methods, Processes, and Outcomes

The BPS:12 PETS sample began with the 35,540 eligible sample members from the 2012/17 Beginning Postsecondary Students Longitudinal Study (BPS:12/17). After removing students identified as ineligible, the data collection included 35,010 sample members, the denominator used for calculating response rates. Data from a variety of sources were used to identify institutions attended by sample members for the BPS:12 PETS collection. The fielded institution sample included 4,360 institutions, of which 290 were deemed ineligible, resulting in 4,070 eligible institutions.

The Postsecondary Data Portal website served as the primary data collection tool for BPS:12 PETS while data collection staff communicated with institutions using mail, phone, and e-mail. Institutions could choose to submit transcripts either electronically or by submitting hard copies. Upon receipt, keyer/coders used an online data-entry application to efficiently and securely capture institution, student, and academic data from the transcripts.

Information for at least one student was provided by 2,770 (68 percent) of the 4,070 eligible institutions with sampled students. At the student level, a transcript was received from at least one institution for 25,910 sample members (74 percent). A transcript was received from each institution attended for 16,890 sample members (48 percent).

Data File Preparation and Processing

Complete data for BPS:12 PETS are contained in restricted-use files and documented in detail in the associated codebooks. The public can generate tables of estimates and simple regressions based on restricted-use data via PowerStats and other web tools publicly available on the NCES DataLab website.

During data collection, project staff worked to prepare the source data for release by reviewing data collected from institutions for precision and accuracy and preparing documentation to aid data users. Staff reviewed transcript data daily for inconsistencies and potential keying errors, corrected any errors that were discovered, and ensured consistency across transcripts.

A set of derived variables was then constructed by combining transcript data into new variables intended to facilitate analyses. These include calculated variables (variables that were created and included on the transcript source files, such as normalized grades or credits) and analysis variables (student-level variables such as aggregations of credits by subjects or time periods). Details about the creation of each analysis variable are available in the PowerStats documentation and codebooks for the restricted-use files.

Weighting and Variance Estimation

BPS:12 PETS sample members are a subset of the NPSAS:12 sample, so their weights for analysis were derived from the NPSAS:12 weights. The NPSAS:12 student design weights for BPS:12 PETS sample members were adjusted to account for subsampling and for unknown student eligibility and nonresponse; and were also calibrated to weighted estimates obtained from NPSAS:12 and population estimates obtained from the Integrated Postsecondary Education Data System (IPEDS:2010–11) fall enrollment file (EF2011A) and the IPEDS:2011–12 student financial aid and net price file (SFA1112).

The BPS:12 PETS sample was the same as that for the BPS:12/17 second follow-up. BPS:12 PETS attempted to collect transcripts for the entire sample regardless of a sample member's response status to the BPS:12/14 or BPS:12/17 student survey data collections. The first weight, WTC, is the PETS response weight and will apply to all individuals for whom a transcript was received from at least one of their institutions. The second weight, WTD, applies to all PETS respondents who were also NPSAS:12 study members as well as BPS:12/14 and BPS:12/17 respondents, and is considered the PETS panel weight.

The overall BPS:12 PETS response rate is an estimate of the proportion of the study population directly represented by the respondents. Because BPS:12 PETS includes a subsample of NPSAS:12 nonrespondents, the overall BPS:12 PETS response rate is the product of the NPSAS:12 institution-level response rate times the BPS:12 PETS student-level transcript response rate. Therefore, the overall BPS:12 PETS response rates can only be estimated directly for defined institutional characteristics.

The institution-level response rates shown in table 15 are the percentage of institutions that provided sufficient data to select the NPSAS:12 student-level sample. Only the weighted response rates can be interpreted as estimates of the proportion of the BPS:12 PETS population that is directly represented by the respondents. Using the PETS response weight, WTC, table 15 shows that, across all sectors, 85 percent of the eligible BPS:12 PETS sample were survey respondents, and the overall response rate was 74 percent. The unweighted rate varied from 46 percent to 92 percent by institution control and level.

Acknowledgments

We express our sincere gratitude to the staff members at postsecondary institutions who provided data for the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12). Without the time and effort of these dedicated individuals, the BPS:12 Postsecondary Education Transcript Study (PETS) would not have been possible.

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Chapter 1. Introduction

1.1 Overview of Data File Documentation

The 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) is a longitudinal study of students who first began their postsecondary education in the 2011–12 academic year. This report describes the design, methods, and outcomes of the BPS:12 Postsecondary Education Transcript Study (PETS) and provides guidance for users of data files from BPS:12. Users should refer to the *2011–12 National Postsecondary Student Aid Study (NPSAS:12) Data File Documentation* (Wine, Bryan, and Siegel 2014) for information about the base-year data collection; to the *2012/14 Beginning Postsecondary Students Longitudinal Study (BPS:12/14) Data File Documentation* (Hill et al. 2016) for the first follow-up data collection; and to the *2012/17 Beginning Postsecondary Students Longitudinal Study (BPS:12/17) Data File Documentation* (Bryan, Cooney, and Elliott 2019) for the second follow-up data collection.

This documentation is divided into four chapters. Chapter 1 provides an overview of BPS:12 and its design as well as a schedule of activities for the PETS component. Chapter 2 discusses the identification of students and institutions for BPS:12 PETS followed by data collection methods, processes, and outcomes. Chapter 3 discusses the data processing and post-collection activities. Chapter 4 describes weighting, variance estimation, response rates, and other statistical procedures used. Appendix A provides a list of acronyms and abbreviations used throughout the report.

1.2 Purpose of BPS

The Beginning Postsecondary Students Longitudinal Study (BPS), conducted periodically by the U.S. Department of Education's National Center for Education Statistics (NCES), focuses on first-time beginning (FTB) undergraduate students and their progression through postsecondary education and into the workforce. By collecting data on topics such as student persistence, degree/credential attainment, employment, financial aid, education and career expectations, and outcomes after leaving school, BPS can provide researchers and policymakers with insight into topics of interest such as the factors that influence students' decisions to transfer or

leave school and the relationships between students' course or major choices and employment outcomes.

1.3 Background and Design of BPS:12

The BPS:12 PETS collection described in this report was conducted to obtain detailed, reliable data on many aspects of student postsecondary experiences, such as enrollment, academic majors, and coursetaking patterns. The PETS collection was designed to supplement data obtained from a variety of sources (e.g. student surveys, other administrative data) in other BPS:12 data collections.

The BPS:12 cohort of FTB students were sampled from the 2011–12 National Postsecondary Student Aid Study (NPSAS:12) sampling frame. NPSAS:12 is a cross-sectional study focused on student financial aid, which served as the initial data collection for BPS:12. NPSAS:12 included a student survey as well as a student records collection in which student financial aid records were collected from postsecondary institutions. Additional data were obtained from other administrative sources such as the Department of Education's National Student Loan Data System (NSLDS) and the Free Application for Federal Student Aid (FAFSA) Central Processing System (CPS) during this time. For more detailed information on NPSAS:12, including aspects related to establishment of the BPS:12 cohort, refer to *2011–12 National Postsecondary Student Aid Study (NPSAS:12) Data File Documentation* (Wine, Bryan, and Siegel 2014).

After the base-year NPSAS:12 collection, the BPS:12 cohort students were surveyed two more times, 3 and 6 years after beginning their postsecondary education, during 2014 and 2017, respectively. For additional information on these studies, consult *2012/14 Beginning Postsecondary Students Longitudinal Study (BPS:12/14) Data File Documentation* (Hill et al. 2016) and *2012/17 Beginning Postsecondary Students Longitudinal Study (BPS:12/17) Data File Documentation* (Bryan, Cooney, and Elliott 2019).

In 2017, postsecondary institutions were contacted and asked to provide student records for BPS:12 sample members who attended between the 2011–12 and 2016–17 academic years.

The BPS:12 PETS collection was conducted in 2018 and was designed to collect transcripts from all known postsecondary institutions attended by students in the BPS:12 cohort.

1.4 Schedule and Products

Table 1 summarizes the major activities related to the BPS:12 PETS collection. Products include restricted-use data files (with associated codebooks) and the online data analysis program PowerStats, which can be accessed at https://nces.ed.gov/datalab. Chapter 3 contains information about the restricted-use files and the datasets they include.

Table 1. Schedule of major data collection activities for BPS:12 PETS: 2016–19

BPS:12 PETS activity	Start date	End date
Finalize student sample	April 2016	Feb 2017
Identify institutions attended by students in the BPS:12 cohort	Nov 2016	Mar 2019
Collect data	Jan 2018	Mar 2019
Process data, construct data files	Jan 2018	May 2019

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Chapter 2. Data Collection Methods, Processes, and Outcomes

This chapter documents the methods and processes used to collect data for BPS:12 PETS, beginning with the identification of students and institutions for the collection. It describes the systems and processes, the quality control (QC) procedures, and the outcomes of data collection activities.

2.1 Identification of Students for BPS:12 PETS

The student universe for BPS:12 consisted of all students who began their postsecondary education for the first time during the 2011–12 academic year at any postsecondary institution in the United States that was eligible for inclusion in NPSAS:12.

The sampling methods for the BPS:12 cohort, including the sampling design used for the base-year data collection (NPSAS:12), are detailed in the *2012/17 Beginning Postsecondary Students Longitudinal Study (BPS:12/17) Data File Documentation* (Bryan, Cooney, and Elliott 2019). That sampling design began with the selection of postsecondary institutions, followed by selection of students from those institutions. The definition of a base-year study member and the identification of FTB students were important aspects of this sampling design. The BPS:12/17 data file documentation also outlines the sampling methods used in the BPS:12/14 and BPS:12/17 follow-up collections.

In summary, the BPS:12 cohort, which also served as the BPS:12/14 sample, was created from the set of confirmed and potential FTB students identified in NPSAS:12. BPS:12/17 was the second follow-up data collection, conducted 3 years after BPS:12/14. The main change from the BPS:12/14 sample to the BPS:12/17 sample was the exclusion of BPS:12/14 sample members who were determined to be non-FTB students for the 2011–12 academic year and were therefore ineligible for BPS:12/17. Deceased individuals were also excluded from the BPS:12/17 sample. Although BPS:12/17 sample members who did not respond to the BPS:12/14 survey and lacked sufficient information to be classified as NPSAS:12 study members were eligible for BPS:12/17, these 1,780 sample members were not fielded (i.e., pursued and asked to complete the student survey) in BPS:12/17.

Because the BPS:12 PETS collection began before eligibility was assessed from the BPS:12/17 student survey, the sample began with all 35,540 eligible sample members from BPS:12/17. This included the 1,780 sample members not fielded for BPS:12/17. Transcripts were sought for all 35,540 students. However, once the BPS:12/17 data were available for review, 300 students were identified as ineligible for the BPS study. During data collection, transcripts and other administrative data sources also identified about 240 additional students who were enrolled too early to be eligible. After removing these ineligible cases, the final sample for BPS:12 PETS included 35,010 students, the denominator used for calculating response rates.

2.2 Identification of Institutions for BPS:12 PETS

Data from a variety of sources were used to identify institutions attended by sample members for the BPS:12 PETS collection. These sources included NPSAS:12, the BPS:12/14 student survey, the BPS:12/17 student survey, the NSLDS, and the National Student Clearinghouse (NSC), a nonprofit provider of educational reporting, data exchange, verification, and research services. Transcripts collected during BPS:12 PETS were also used to identify additional institutions attended. Incoming transcripts were reviewed for data indicating other postsecondary institutions attended by the sample members. These additional institutions were typically identified from transferred credits on the transcripts.

In preparation for data collection, data matches to NSLDS loan and Pell Grant records as well as NSC enrollment data were performed to identify institutions attended by sample members. In addition, newly discovered institutions identified during the BPS:12/17 student survey were included in the PETS collection.

Student/school pairs identified from all sources were merged together to create a single dataset of all possible institutions attended by sample members. The fielded institution sample included 4,360 distinct IPEDS institutions. Of the 4,360 institutions, 290 (7 percent) were deemed ineligible because they had closed or because they were not postsecondary institutions, resulting in 4,070 eligible institutions (64 percent of 2018–19 IPEDS institutions).

2.3 Data Collection Systems, Processes, and Quality Control

2.3.1 Postsecondary Data Portal Website

The Postsecondary Data Portal (PDP) website served as the primary data collection tool for BPS:12 PETS. In addition to providing a secure means for institutions to submit data, the PDP website furnished users with general information about NCES sample studies, answers to frequently asked questions, and confidentiality assurances. Contact information for the data collection help desk, project staff at RTI, and NCES project officers, as well as a link to the main NCES website, were also included on the website. From the secure portion of the PDP website, authorized personnel from institutions could access the list of their sampled students, view detailed instructions for entering or uploading data, and enter or upload data. Various systems and functionality were incorporated into the website application to ensure strict adherence to NCES confidentiality guidelines, including:

- a Secure Sockets Layer Certificate[1] for secure data transmission over the Internet,
- password protection of all data-entry modules,
- automated user log-out after 20 minutes of inactivity, and
- processes that immediately moved uploaded files to a secure project folder accessible only to a subset of project staff.

2.3.2 Institution Contacting System and Institution-Contacting Staff

A web-based control system—the Institution Contacting System (ICS)—supported each step of data collection, including project management, communications, and tracking. The ICS was used to store and access data on students and track efforts to obtain their transcripts.

Institution-contacting staff included institution contactors (ICs) and quality control supervisors (QCSs), who were responsible for staff supervision. Before data collection began, the ICs and QCSs were trained on topics such as the background and purpose of the study, gaining institution cooperation, problem resolution, data

[1] The industry standard security technology which establishes a secure encrypted link between a web server and a web browser. Once the link is created, all data transmissions between the server and the browser are encrypted.

collection and receipt systems, answering frequently asked questions, and confidentiality regulations. See appendix B for more information on training content.

2.3.3 Institution Contacting and Recruitment

BPS:12 PETS data collection began in January 2018 and ended in March 2019. Transcripts were requested from 4,070 eligible postsecondary institutions. In addition, if an institution possessed copies of transcripts received from any transfer schools attended by the sample member, those transfer transcripts were also sought, for a total of 72,880 transcripts requested. This includes requests for all 35,540 originally sampled students.

Before the start of collection, the ICS was loaded with information on the institution sample, including contact information for the institution, when known. If necessary, ICs performed internet searches to identify the director of the institutional research office and the registrar, and then followed up by telephone to confirm or obtain the contact information.

At the start of data collection, a packet was sent to each institution's institutional research director informing them of the data request. See appendix C for examples of notification materials for institution data collection. If an institution had no office of institutional research, packets were sent to the chief administrator's office. These request packets were sent by express shipping and included:

- letters introducing the study, requesting data, and providing information about how to log on to the study's secure website;
- instructions for providing data; and
- a brochure.

Two or three days after the initial mailing, ICs made phone calls to confirm receipt of the packet and answer any questions about the study. If it was determined that the packet was sent to the incorrect person at the institution, that person's user account was disabled and new credentials were provided to the correct person. Prompting calls and reminder e-mails continued throughout data collection. During initial conversations, ICs asked institution staff members to identify a coordinator to serve as the primary point of contact for data collection, as well as additional contact people who might help provide transcripts.

ICs also served as members of the help desk team assisting institution staff who called in or e-mailed questions. Most inbound communication related to either

requests for due date extensions or assistance with the PDP website, including password resets, and the data upload process.

In addition to individual institutions, systems or groups of institutions were identified from which data for multiple institutions could be supplied by a single office or individual who routinely handles such requests on behalf of individual institutions (e.g., a systemwide office). This strategy increases the efficiency of institution data collections and minimizes burden by eliminating the need to contact each institution within a system separately.

During the collection period, ICs and other data collection staff members met weekly to review progress, ask questions, and discuss any issues. Project staff used daily monitoring reports to review issues with incoming data, and ICs recontacted institutions to resolve issues or request additional or replacement data.

2.3.4 Data Receipt Procedures

Receipt control staff used the Data Receipt System (DRS)—a web-based control system—to efficiently log the receipt of transcripts and course catalogs as they were received each day, associate the files with institutions and students, and store the results of a quality review.

Before the start of the data collection, receipt control staff were trained on topics such as study background, transcript submission modes, transcript types and common layouts, detecting and documenting problems encountered, and use of the DRS. Training included review of example transcripts and hands-on practice with the DRS. See appendix B for more information on training content.

Receipt control staff reviewed received transcripts for completeness. ICs then contacted the institutions to prompt for missing data and to resolve any problems or inconsistencies.

Institutions could choose among a variety of modes for submitting transcript data based on their own preferences and internal capacities.

Available submission modes included:

1. upload of electronic transcripts to the secure PDP website;
2. delivery of electronic transcripts via secure File Transfer Protocol (FTP);
3. submission of electronic transcripts as encrypted attachments via email;

4. request/collection, by RTI, of electronic transcripts via a dedicated server at the NSC for institutions that already used this method;

5. submission of electronic transcripts via eSCRIP-SAFE, a commercial electronic transcript delivery service (for institutions that already used this method), in which institutions send data to the eSCRIP-SAFE server by secure internet connection, after which they can be downloaded only by a designated user;

6. transmission of transcripts via a secure electronic fax after a test submission of nonsensitive data confirmed that the institution had the correct fax number; and

7. delivery of redacted transcripts via an express mail service as a last resort (Prior to sending the transcripts, institution staff were instructed to remove or completely obscure personally identifiable information and to record the study ID of the student on each transcript for identification purposes.).

All transcripts were received in electronic format with the exception of transcripts sent via an express mail service. Any transcripts received in hard copy were scanned to create PDFs that were then processed in the same manner as all other transcripts. The hard copy documents were then shredded.

As transcripts were received, receipt control staff opened the files within the DRS. They checked transcripts for completeness, verified that the transcript was received for the requested sample member, and recorded this information in the DRS. Next, they checked to make sure that a readable, complete electronic transcript was received and entered a disposition code for the transcript into the DRS. Course catalogs were also reviewed and their disposition status updated in the system in cases where this information was necessary and not available through institution websites. Hard-copy course catalogs were stored in a secure facility at RTI, organized by institution.

Receipt control staff were responsible for (1) associating files with the sending institution; (2) associating files with the correct sampled students, at which point the transcript file was given an ID number; (3) reviewing the transcript files to identify missing, incomplete, or indecipherable transcripts; and (4) assigning appropriate problem codes for missing and problematic transcripts, and providing detailed notes about each problem to facilitate follow-up by ICs and other project staff. Project staff used daily monitoring reports to review the transcript problems and to identify approaches to solving the problems. Web-based collection allowed for timely QC, as

project staff were able to monitor data quality for participating institutions closely and on a regular basis.

2.3.5 Transcript Keying/Coding System and Keyer/Coders

Keyer/coders (KCs) used the keying/coding system (KCS)—an online data-entry application—to efficiently and securely capture data from the transcripts. The KCS included data-entry fields for institution-, student-, and transcript-level data. Appendix D contains the full list of KCS data elements.

Before beginning work on the project, KCs were trained on topics such as study background with a particular focus on the PETS component, the role of the KC, the varying formats of transcripts and course catalogs, KCS functionality, how to properly review transcripts and course catalogs to capture the data in the KCS. The selection of best-fitting codes for courses, fields of study, and institutions was also covered during training. At the end of training, KCs completed certification wherein an entire transcript was keyed and coded independently. See appendix B for more information on training content.

KCs used the transcript and the institution's course catalog to key and code the relevant data elements. If a datum was not present on the transcript (e.g., high school graduation date), the field was left blank in the KCS. Institution-level elements (e.g., credit, calendar, and grading systems; grade point average [GPA] scale; and minimum credits to be considered full time) were requested from the institution and available for KCs to review and/or fill in missing data.

At the student level, the KCS captured the student's name, address, date of birth, Social Security number, and high school graduation date. Depending on the transcript, KCs entered complete or partial information for each of these elements (e.g., sometimes only the last four digits of the Social Security number were present).

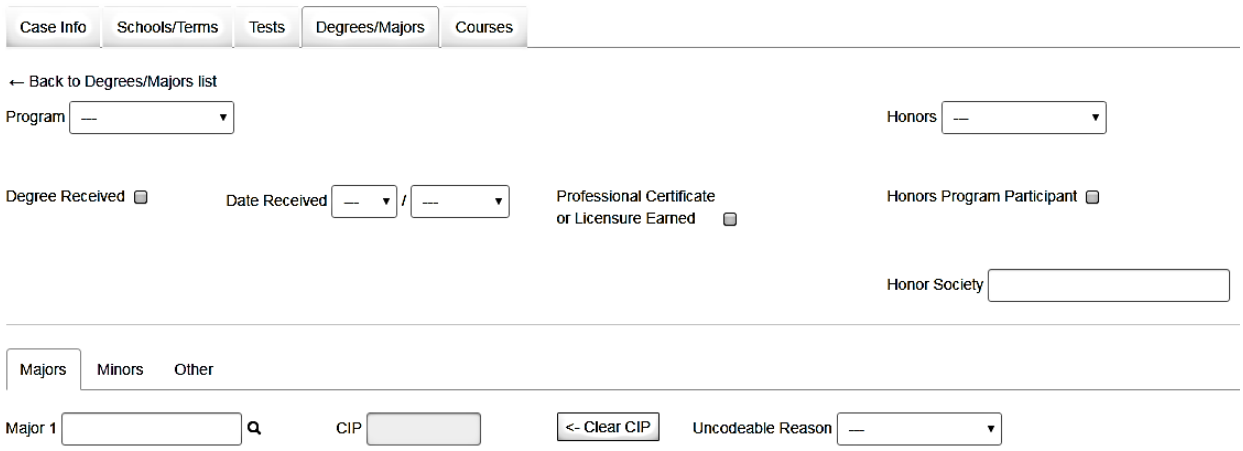
For each transcript, KCs entered the cumulative GPA and credit or clock hours earned at the institution. If the transcript contained information about tests taken by the student (e.g., the ACT), the name, date taken, and score were captured in the KCS.

The KCS captured the degree program attempted or degree earned by the student. For each degree awarded, the KC entered the date of receipt and graduation honors, if applicable. Regardless of receipt, the field of study of each degree program was keyed. The KCS was able to capture up to two majors, two minors, and a concentration for each degree program.

KCs keyed the following data elements for each course that appeared on the transcript: course number, course name, grade earned, credit or clock hours earned or attempted, and the term in which the course was taken. If the transcript or course catalog indicated additional information about the course (e.g., the course included a lab component or course credit was given for an Advanced Placement [AP] exam), these data were keyed.

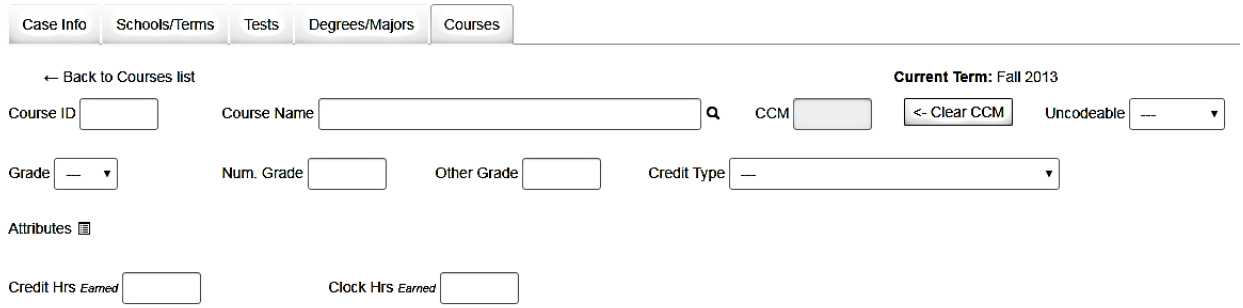
Figures 1 and 2 show screenshots of two pages from the KCS. Once keyed, this information was presented in tabular form.

Figure 1. KCS Degrees/Majors page



SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Figure 2. KCS Courses page



SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Quality experts were responsible for helping with QC during data collection, answering questions from KCs, and conveying more difficult questions to project staff as needed. The project supervisor served as the administrative manager of the KCs and quality experts.

Project staff held weekly meetings with KCs to relay updated protocols, discuss keying and coding questions, and address any issues related to the KCS. Keying and coding guidance documents were updated with revised best practices and/or protocols based on feedback from these meetings.

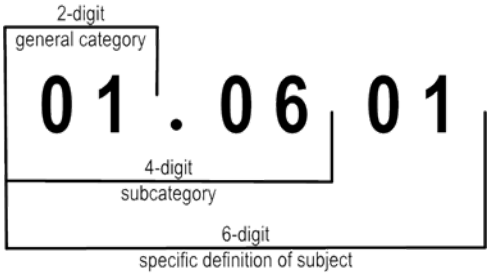
2.3.6 Coding Taxonomies

In addition to keying data elements, KCs used coding taxonomies to standardize institution names, fields of study, and courses that appeared on transcripts. To code the postsecondary institutions where students were enrolled, the KCs used the Integrated Postsecondary Education Data System (IPEDS) database, developed by NCES (https://nces.ed.gov/collegenavigator/). The majors, minors, and concentrations that were keyed for each degree program were coded using the 2010 Classification of Instructional Programs (CIP) taxonomy developed by NCES (https://nces.ed.gov/ipeds/cipcode).

Course content was coded using the 2010 College Course Map (CCM) (Bryan and Simone 2012). The CCM was created from the CIP and is used to code postsecondary education courses. The CIP contains codes related to instructional programs (e.g., Environmental Biology), whereas the CCM includes all CIP codes and contains course-specific codes (e.g., Field Biology). The CCM contains 463 course codes not included in the CIP.

The structure of the CIP and CCM is a six-digit code where the first two digits represent the general category, the first four digits indicate the subcategory within the general category, and the six-digit code identifies the specific definition of the field of study or course content. The CCM codes that are not in the CIP align to the same two- and/or four-digit level as related CIP codes. Figure 3 provides a visual representation of the structure of the codes.

Figure 3. Code diagram



SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

The codes are classified as general, specific, or other. General codes, those typically ending with 00 or 01, represent undifferentiated instructional programs or courses within the main category or subcategory. In the CIP and CCM overall, 21 and 18 percent of codes, respectively, can be categorized as general; for example, 26.0101 is "Biology, General." Specific codes, which make up 66 and 71 percent of CIP and CCM codes, respectively, end in digits ascending from the general code, such as 26.0204, "Molecular Biology." The remaining codes, which comprise 13 and 11 percent of the CIP and CCM codes, respectively, are categorized as other codes. These codes describe subjects that are not general and not covered in a specific code and end with 99; for example, 26.0899, "Genetics, Other."

2.3.7 Transcript Keying/Coding Quality Control

The transcript keying/coding task included multiple QC procedures, such as double-keying, double-coding with arbitration, as well as reviewing and upcoding of unknown institutions and variables with "other, specify" fields. A debriefing meeting was held with the KCs at the end of the project to learn about what worked well and identify improvements to be made.

Double-keying. To evaluate the interrater reliability between KCs, a random 10 percent sample of transcripts were double-keyed, a process in which a second KC keyed a subset of transcript data without knowledge of the data keyed by the first KC. The subset of data elements included demographic information, terms, degree programs, and tests.

The measure of the interrater reliability between the two KCs used Cohen's kappa statistic (Cohen 1960). Measuring the proportion of agreement between raters, above what would be expected by random chance, a kappa score of 0.81–1.00 is considered "almost perfect agreement," 0.61–0.80 is "substantial agreement," and 0.41–0.60 is "moderate agreement."

The kappa value for demographic information was 0.81 (almost perfect agreement). For terms, it was 0.99 (almost perfect agreement), for degree programs 0.95 (almost perfect agreement), and for tests 0.45 (moderate agreement).

The lower agreement rate for tests is partly due to changes in scoring rubrics for standardized tests (e.g., the ACT) over time. In the KCS, keying/coding staff had to choose the scoring rubric that matched the transcript. Standardized test scores were often reported in highly variable ways on transcripts, and in many cases did not present sub-scores (e.g., Math, Writing) separately. This presentation of scores made identification of the scoring rubric difficult to determine. Another example of error

in interpretation may have occurred with the writing score for the ACT. The range for the writing score changed in 2015. If a transcript did not contain a writing score, it is possible that the keyer/coder chose the incorrect option to enter the test score(s).

Double-coding with arbitration. Double-coding was performed on 10 percent of courses from each institution. For institutions where students took fewer than 10 courses, all of the courses were double-coded. As with double-keying, double-coding was completed by a second KC selecting a code with no knowledge of the code chosen by the first KC.

The results of double-coding were used to evaluate the reliability of course coding and to offer feedback to improve course coding by the KCs. Cohen's kappa statistic was used to assess interrater reliability between the two KCs at the three levels of the CCM code: the two-digit general category, the four-digit subcategory, and the specific six-digit course code. The kappa value for two-digit agreement between coders was 0.85, indicating almost perfect agreement on general course categories. The kappa values for four- and six-digit agreement between coders were 0.75 and 0.64, respectively, indicating substantial agreement at the subcategory and specific code levels.

Arbiters reviewed cases in which the two KCs did not select the same code. These project staff—who possessed extensive knowledge of the CCM and coding guidance—selected a CCM code based on the transcript and course catalog information. The arbiter had access to the codes selected by both KCs and had the ability to agree with either KC or choose a third code that differed from those chosen by both KCs. Results of the arbitration process provided information to update the coding guidance and was used to deliver feedback to KCs.

Review and upcoding of unknown institutions. Transcript courses were associated with the institution at which the courses were taken. When a school appeared on a transcript and that school was not shown in the KCS as a school the student was known to have attended, the IPEDS coder—a search tool for determining the correct IPEDS ID using an institution name—was used to select the institution and associate the courses with the new school.

In some instances, schools were not found in the IPEDS coder due to inadequate or unclear data from the transcript or because the schools were international institutions which are not included in the IPEDS coder. In a process referred to as upcoding, project staff reviewed these uncodable institutions to determine if additional information could be used to assign the appropriate IPEDS code. For

example, transcripts from other institutions the student attended were useful in identifying institutions without an IPEDS code. After review, 30 institutions (0.6 percent) remained uncodable. Uncodable institutions are indicated by an IPEDS ID of seven digits rather than six.

Review and upcoding of variables with "other, specify." Data elements within the KCS contain drop-down menus to capture the transcript information. Some of these elements contain an "other, specify" option. For each of the following data elements, any text string entered for the "other, specify" option was reviewed:

- degree programs (e.g., a text string of "diploma" specified in the "other" category would been left unchanged in the "other" category),
- degree types (e.g., a text string of "bachelor's degree in education" specified in the "other" category would have been upcoded to an already existing category),
- graduation honors (e.g., a text string of "magna cum laude" specified in the "other" category would have been upcoded to an already existing category),
- grades (e.g., a text string of "G" specified in the "other" category would have been left unchanged in the "other" category),
- term honors (e.g., a text string of "Dean's List" specified in the "other" category would have been upcoded to an already existing category),
- noncourse credits awarded (e.g., a text string of "AP test" specified in the "other" category would have been upcoded to an already existing category), and
- tests (e.g., a text string of "SAT" specified in the "other" category would have been upcoded to an already existing category).

Upon review, the responses were either upcoded or left unchanged. When upcoded, a response was changed to an existing option or assigned a newly formed option when similar strings were identified. Table 2 shows the results of "other, specify" upcoding, including the total number of cases for each data element and the number and percent that were upcoded.

Table 2. Upcoding of "other, specify" responses: 2018–19

Data elements with "other, specify" option	Number of "other, specify" cases	Number upcoded	Percent upcoded
Degree programs[1]	340	330	97.7
Degree types[1]	1,340	1,030	77.1
Graduation honors[1]	550	480	88.8
Grades[2]	52,380	37,830	72.2
Term honors[3]	3,580	3,370	94.1
Noncourse credits awarded[2]	2,990	2,540	84.8

[1] This variable is included on the BPS:12 PETS Degree/Major Field of Study source file which contains 54,580 records.
[2] This variable is included on the BPS:12 PETS Course source file which contains 824,820 records.
[3] This variable is included on the BPS:12 PETS Term source file which contains 227,320 records.
NOTE: Values rounded to the nearest 10. Percentages are based on unrounded numbers. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

The KCS captured degree programs, such as associate's and bachelor's. Over 300 were categorized as "other"; 98 percent of these were upcoded to existing categories. The specific degree types, such as bachelor of science, were also entered in the KCS. Of the degree types categorized as "other," 77 percent could be upcoded into existing categories. Graduation honors, such as magna cum laude, were captured in the KCS. Of those categorized as "other," 89 percent were upcoded to existing categories. For each course, the majority of grades were common letter grades (e.g., A-F, I, and W) and numeric grades. Grades that did not fall into these categories were also captured, and 72 percent were found to be equivalent to common letter or numeric grades after project staff reviewed the institution's course catalog. For example, a grade of "U" could be determined to be equivalent to "Withdrawal" and upcoded as such. The KCS captured term-level honors (e.g., Dean's List) awarded to students. Of those coded as "other," 94 percent could be upcoded to the existing categories. In addition to courses, the KCS captured credits earned for noncourse activities, such as taking a test (e.g., AP or College-Level Examination Program) or work or military experience. Among these credits identified as "other," 85 percent were upcoded to existing categories.

Test data entered as "other, specify" were reviewed but not upcoded. Test data found on transcripts had a high degree of variability in responses. Test data were entered with the "other, specify" option more often than with response options for known tests such as the SAT or ACT.

Keyer/coder debriefing. Shortly before keying and coding concluded, a debriefing meeting was held with 26 keying/coding staff, 4 of whom also performed quality expert roles. Staff reported that the training prepared them for keying/coding, and the weekly quality meetings were helpful. They reviewed their training and resource materials often throughout the data collection. The KCS was an effective tool for

entering transcript data; however, improvements were suggested, such as reordering fields to match workflow.

Regarding course coding, staff noted that coding became easier over time, but some course subjects were difficult to code. The subject areas that proved most difficult were engineering, math, computer or information technology, and criminal justice. Staff also reported that coding was challenging when the course catalog descriptions were much more detailed than the CCM code descriptions.

2.4 Data Collection Outcomes

2.4.1 Institution-Level Data Collection Outcomes

Of the 4,070 eligible institutions with sampled students, 2,770 (68 percent) provided information. Table 3 provides institution participation rates by control and level of institution. Across the institution types represented, participation in the transcript collection ranged from 41 percent at private nonprofit less-than-4-year institutions to 85 percent at public 4-year, doctorate-granting institutions. Some common reasons cited by institutions for not participating in PETS included lack of available staff to handle the request for transcripts and the timing of the transcript request.

Table 3. Eligible institution participation, by control and level of institution: 2018–19

Control and level of institution	Total eligible institutions	Institution-level participation[1]	
		Number	Percent
Total	**4,070**	**2,770**	**68.0**
Public			
Less-than-2-year	70	30	42.9
2-year	880	730	82.4
4-year, non-doctorate-granting	330	240	74.1
4-year, doctorate-granting	320	270	85.4
Private nonprofit			
Less-than-4-year	100	40	41.4
4-year, non-doctorate-granting	530	430	80.8
4-year, doctorate-granting	380	310	82.4
Private for-profit			
Less-than-2-year	500	290	58.4
2-year	440	210	47.6
4-year	350	190	55.5

[1] An institution was considered a participant if it provided information for at least one student. A small number of the participating institutions (less than 1 percent of the sample) are not represented in the institution type rows because their control and level could not be determined.
NOTE: Sample sizes rounded to the nearest 10. Percentages are based on unrounded numbers. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

2.4.2 Student-Level Data Collection Outcomes

Data requests were originally made for 35,540 eligible sample members. However, during institution contacting, review of BPS:12/17 data identified approximately 300 ineligible students. Transcripts and other administrative data sources also identified about 240 additional students who were enrolled too early to be eligible for the BPS study. After removing these ineligible cases, the data collection included 35,010 sample members, the denominator used for calculating response rates. A transcript was received from at least one institution for 25,910 sample members (74 percent). A transcript was received from each institution attended for 16,890 sample members (48 percent). Table 4 shows the transcript collection results at the student level.

Table 4. Student-level transcript collection results: 2018–19

Student sample	Number	Percent
Total	**35,010**	**100.0**
Transcript respondents		
At least one transcript received[1]	25,910	74.0
All student's transcripts received	16,890	48.2
Transcript nonrespondents	9,100	26.0

[1] A student was considered a transcript respondent if a transcript was received from one or more institutions and the transcript contained a course, term, or a degree program.
NOTE: Sample sizes rounded to the nearest 10. Percentages are based on unrounded numbers. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Because BPS:12 PETS attempted to collect transcripts from all institutions students potentially attended, students could have multiple transcripts. A total of 39,740 transcripts were received, keyed, and coded. The processed transcripts included a total of 812,290 courses, of which 39 percent were coded using a general code, 57 percent using a more specific code, and 3 percent using an "other" code. The remaining courses (0.3 percent) were identified as uncodable because the course title was unclear or there was inadequate information on the course content. Table 5 shows the average time for keying and coding all courses on a transcript by control and level of institution.

Table 5. Average time to key/code courses per transcript, by control and level of institution: 2018–19

Control and level of institution	Average time in minutes
Public	
Less-than-2-year	6.21
2-year	8.44
4-year, non-doctorate-granting	16.88
4-year, doctorate-granting	25.07
Private nonprofit	
Less-than-4-year	9.56
4-year, non-doctorate-granting	24.18
4-year, doctorate-granting	30.33
Private for-profit	
Less-than-2-year	7.83
2-year	7.00
4-year	10.16

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Chapter 3. Data File Preparation and Processing

Data for BPS:12 PETS are fully documented and available to researchers as a set of restricted-use microlevel data files. The public can generate tables of estimates and simple regressions based on restricted-use data via PowerStats and other web tools publicly available on the NCES DataLab website (https://nces.ed.gov/datalab/). This chapter provides details on the contents of the restricted-use files, processing of the data files, and creation of derived variables.

3.1 Overview of the BPS:12 PETS Data Files

Complete data for BPS:12 PETS are contained in restricted-use files and documented in detail in the associated codebooks. The restricted-use files (table 6) are available to researchers who have applied for and received authorization from NCES to access the files. Researchers may obtain authorization by contacting the Institute of Education Sciences (IES) Data Security Office.[2]

The primary analysis file (or derived file) for BPS:12 PETS contains data for approximately 31,090 students (BPS:12/17 and/or BPS:12 PETS respondents) and includes more than 1,700 variables. NSLDS data were also used to create derived variables in combination with data collected from transcripts.

Table 6. BPS:12 PETS restricted-use file, description, and file path: 2019

Restricted-use file	Description	File path
BPS:12/17 and PETS analysis (derived)	Contains analytic variables derived from all sources, including transcripts, for 31,090 BPS:12/17 and/or PETS respondents.	/data/derived/ bps17petsderived_datafile.csv
BPS:12 PETS institution data	Contains information about every postsecondary institution included in the postsecondary transcripts data. (3,940 records)	/data/source/bpspetsinstitution/ bpspetsinstitution_datafile.csv
BPS:12 PETS student institution data	Contains information for every institution the student attended (e.g., enrollment dates, awards received, total earned credits). (50,990 records)	/data/source/bpspetsstudentinstitution/ bpspetsstudentinstitution_datafile.csv
BPS:12 PETS term data	Contains information for every term indicated on the student transcripts (e.g., term dates, honors, earned credits, GPA). (227,320 records)	/data/source/bpspetsterm/ bpspetsterm_datafile.csv
BPS:12 PETS course data	Contains information for every course indicated on the student transcripts (e.g., course name, CCM code, credits earned, and grade received). (824,820 records)	/data/source/bpspetscourse/ bpspetscourse_datafile.csv

See notes at end of table.

[2] More information on obtaining restricted-use data files is available at https://nces.ed.gov/statprog/rudman/.

Table 6. BPS:12 PETS restricted-use file, description, and file path: 2019—Continued

Restricted-use file	Description	File path
BPS:12 PETS degree/major field of study data	Contains information for every degree or major field of study indicated on the student transcripts (e.g., degree program, major CIP code, date received (if applicable), honors). (54,580 records)	/data/source/bpspetsdegree/ bpspetsdegree_datafile.csv
BPS:12 PETS test data	Contains information for every test indicated on the student transcripts (e.g., test name, score, date). (15,960 records)	/data/source/bpspetstests /bpspetstests_datafile.csv
BPS:12/17 student interview data	Contains data collected from the student interviews of the 22,530 BPS:12/17 respondents.	/data/source/interview/ bps17interview_datafile.csv
BPS:12/17 school information	Contains student-school level undergraduate enrollment information for all BPS:12/17 respondents. This file includes one record for each school a BPS:12/17 respondent attended at the undergraduate level and their months of enrollment at that school between July 1, 2011 and June 30, 2017.	/data/source/schinfo/ bps17schinfo_datafile.csv
BPS:12/17 program information	Contains student-school-program level undergraduate enrollment information for all BPS:12/17 respondents. This file includes one record for each undergraduate degree program (including nondegree) a BPS:12/17 respondent enrolled in and their months of attendance in that program between July 1, 2011 and June 30, 2017.	/data/source/proginfo/ bps17proginfo_datafile.csv
BPS:12/17 graduate enrollment information	Contains student-school level graduate enrollment information for 1,490 BPS:12/17 respondents who had graduate-level enrollment between July 1, 2011 and June 30, 2017. This file includes one record for each school a respondent attended at the graduate level and their months of enrollment at that school.	/data/source/grinfo/ bps17grinfo_datafile.csv
BPS:12/17 school identification number crosswalk	Contains student-school level observations with IPEDS identification numbers (UNITID) and/or Office of Postsecondary Education identification numbers (OPEID) for each institution that reported enrollment information for BPS:12/17 respondents from any available source throughout the study. This file catalogs organizational changes across school identification numbers (e.g., school mergers and closures) and accounts for other administrative differences in the way enrollment information was reported across data sources.	/data/source/schidcw/ bps17schidcw_datafile.csv
Imputation flag	Contains imputation flags for any BPS:12/17 derived variable that was imputed for approximately 22,530 BPS:12/17 interview respondents. This file includes one record per BPS:12/17 respondent.	/data/source/flag/ bps17flag_datafile.csv
CPS 2011–12 data	Contains data received from CPS for the 19,730 BPS:12/17 respondents who matched to the 2011–12 financial aid application files.	/data/source/cps12/ bps17cps12_datafile.csv
CPS 2012–13 data	Contains data received from CPS for the 15,490 BPS:12/17 respondents who matched to the 2012–13 financial aid application files.	/data/source/cps13/ bps17cps13_datafile.csv
CPS 2013–14 data	Contains data received from CPS for the 12,280 BPS:12/17 respondents who matched to the 2013–14 financial aid application files.	/data/source/cps14/ bps17cps14_datafile.csv
CPS 2014–15 data	Contains data received from CPS for the 11,320 BPS:12/17 respondents who matched to the 2014–15 financial aid application files.	/data/source/cps15/ bps17cps15_datafile.csv
CPS 2015–16 data	Contains data received from CPS for the 7,790 BPS:12/17 respondents who matched to the 2015–16 financial aid application files.	/data/source/cps16/ bps17cps16_datafile.csv
CPS 2016–17 data	Contains data received from CPS for the 5,650 BPS:12/17 respondents who matched to the 2016–17 financial aid application files.	/data/source/cps17/ bps17cps17_datafile.csv

See notes at end of table.

Table 6. BPS:12 PETS restricted-use file, description, and file path: 2019—Continued

Restricted-use file	Description	File path
CPS 2017–18 data	Contains data received from CPS for the 4,540 BPS:12/17 respondents who matched to the 2017–18 financial aid application files.	/data/source/cps18/ bps17cps18_datafile.csv
GIS census tract data	Contains one observation per BPS:12/17 respondent with census tract level characteristics based on geocoded location information of each BPS:12/17 respondent's residence in the base year (2011–12) matched to the 2008–12 (5-year) estimates from the America Community Survey from the U.S. Census Bureau.	/data/source/gis/ bps17gis_datafile.csv
NSLDS loan	Contains loan-level data received from NSLDS for approximately 15,960 matched BPS:12/17 respondents who borrowed federal loans as of early 2018. This file includes one record for each federal loan borrowed by these respondents and provides the most recent information for that loan.	/data/source/nslds_loan/ bps17nsldsloan_datafile.csv
NSLDS loan disbursement	Contains loan-disbursement level data from NSLDS for approximately 15,960 matched BPS:12/17 respondents who borrowed federal loans as of early 2018. This file includes one record for each disbursement made on a federal loan to respondents.	/data/source/nslds_loan_loandis/ bps17nsldloandis_datafile.csv
NSLDS loan delinquency	Contains loan-level delinquency data received from NSLDS for BPS:12/17 respondents who were ever delinquent on a federal loan as of early 2018. This is a history file with separate records for each instance of delinquency per loan.	/data/source/nslds_loan_deling/ bps17nsldsdelinq_datafile.csv
NSLDS loan deferment	Contains loan-level deferment data received from NSLDS for BPS:12/17 respondents who ever obtained a deferment for a federal loan as of early 2018. This is a history file with separate records for each instance of deferment per loan.	/data/source/nslds_loan_defer/ bps17nsldsdefer_datafile.csv
NSLDS loan forbearance	Contains loan-level forbearance data received from NSLDS for BPS:12/17 respondents who ever obtained a forbearance for a federal loan as of early 2018. This is a history file with separate records for each instance of forbearance per loan.	/data/source/nslds_loan_forbear/ bps17nsldsforbear_datafile.csv
NSLDS Stafford Loan default	Contains loan-level default occurrences derived from NSLDS for all BPS:12/17 respondents with federal Stafford loans that were ever in default as of early 2018. This is a history file with a separate record for each default occurrence per loan.	/data/source/nslds_loan_staffdef/ bps17nsldsstaffdef_datafile.csv
NSLDS non-Stafford Loan default	Contains loan-level default occurrences derived from NSLDS for all BPS:12/17 respondents with federal non-Stafford (Perkins) loans that were ever in default as of early 2018. This is a history file with a separate record for each default occurrence per loan.	/data/source/nslds_loan_nonstaffdef/ bps17nsldsnonstaffdef_datafile.csv
NSLDS outstanding interest balance	Contains loan-level outstanding interest balance data received from NSLDS for BPS:12/17 respondents who received federal loans as of early 2018. This is a history file with separate records for each interest update per loan.	/data/source/nslds_loan_oib/ bps17nsldsoib_datafile.csv
NSLDS outstanding principal balance	Contains loan-level outstanding principal balance data received from NSLDS for BPS:12/17 respondents who received federal loans as of early 2018. This is a history file with separate records for each balance update per loan.	/data/source/nslds_loan_opb/ bps17nsldsopb_datafile.csv
NSLDS loan repayment history	Contains loan-level repayment data received from NSLDS for BPS:12/17 respondents who entered repayment and made any payments on their federal loans as of early 2018. This is a history file with separate records for each payment made on a loan.	/data/source/nslds_loan_rpmthis/ bps17nsldsrpmthis_datafile.csv
NSLDS loan repayment plan	Contains loan-level repayment plan information received from NSLDS for BPS:12/17 respondents who entered repayment on federal loans as of early 2018. This is a history file with separate records for each change to a loan's repayment.	/data/source/nslds_loan_rpmtplan/ bps17nsldsrpmtplan_datafile.csv

See notes at end of table.

Table 6. BPS:12 PETS restricted-use file, description, and file path: 2019—Continued

Restricted-use file	Description	File path
NSLDS loan to IDR application data	Contains loan-application-level repayment plan data, where each observation represents a successful enrollment, recertification, or recalculation on an IDR plan resulting from the IDR application identification number linked to the observation.	/data/source/nslds_loan_loanidrappl/bps17nsldsloanidrappl_datafile.csv
NSLDS IDR plan application data	Contains student-application-level data received from NSLDS for BPS:12/17 respondents who applied for any federal income-driven repayment plans for federal loans as of early 2018. Each observation represents an IDR plan application.	/data/source/nslds_loan_idrappl/ bps17nsldsidrappl_datafile.csv
NSLDS FAFSA history	Contains student award year-level data from FAFSA, stored and obtained from NSLDS, for approximately 19,250 matched study members as of early 2018. This file includes one record for each year in which a respondent filed a FAFSA between the 1995 and 2019 federal award years. Each record includes income, expected family contribution, and select demographic information reported on the application.	/data/source/nslds_loan_fafsa/ bps17nsldfafsa_datafile.csv
NSLDS award origin	Contains student award year-level data on federal Direct Loans awarded to 15,790 study members as of early 2018. This file includes one record for each student and year during which the student was awarded a federal Direct Loan between 2012 and 2018. The file is an aggregation of loan-level data reported by institutions to the U.S. Department of Education's COD system and provides information on loan amount eligibility and the academic year periods associated with loans disbursed during the award year.	/data/source/nslds_loan_award/ bps17nsldsaward_datafile.csv
NSLDS enrollment status	Contains student-school-program-level enrollment information from NSLDS for 12,020 BPS:12/17 respondents. These data are incomplete in the first 3 years of the study, but are more reliable from the 2015 through 2017 academic years. This file includes one record for each program and enrollment status change for a student as reported to NSLDS.	/data/source/nslds_loan_enroll/ bps17nsldsenroll_datafile.csv
NSLDS Pell Grant data	Contains Pell Grant data received from NSLDS for approximately 15,210 BPS:12/17 respondents who received a federal grant as of early 2018. This file includes one record for each federal grant received by these respondents and provides distribution information for that grant.	/data/source/nslds_pell/ bps17nsldspell_datafile.csv
BPS:12/14 interview data	Contains the raw BPS:12/14 interview data for the BPS:12/17 study respondents who completed an interview in BPS:12/14.	/data/source/bps14interview/ bps14interview_datafile.csv
NPSAS:12 student base	Contains the base-year data included in the NPSAS:12 data file collected for the BPS:12/17 respondents from institutional records and from student interviews. There is a separate record for each BPS:12/17 interview respondent.	/data/source/bps17n12studbase/ bps17n12studbase_datafile.csv
NPSAS:12 institution data	Contains institution-level data for the BPS:12/17 sample members' NPSAS institution collected during 2011–12. There are 1,410 institutions represented.	/data/source/bps17n12institution/ bps17n12institution_datafile.csv
BPS:12/17 and PETS weights	Contains the final BPS:12/17 and PETS weight and variance estimation variables as a separate record for each study member.	/data/source/bps17weights/BPS17weights_datafile.csv
BPS:12/17 weights history	Contains the intermediate weight adjustment factors as well as the final student weights and the variance estimation variables as a separate record for each study member.	/data/source/bps17weight_history/ bps17weighth_datafile.csv

NOTE: Sample sizes rounded to the nearest 10. BPS = Beginning Postsecondary Students Longitudinal Study; CCM = College Course Map; CIP = Classification of Instructional Programs; COD = common origination and disbursement; CPS = Central Processing System; FAFSA = Free Application for Federal Student Aid; GIS = geographic information system; GPA = grade point average; IDR = income-driven repayment; IPEDS = Integrated Postsecondary Education Data System; NPSAS = National Postsecondary Student Aid Study; NSLDS = National Student Loan Data System.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012/17 Beginning Postsecondary Students Longitudinal Study (BPS:12/17); 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

3.2 Data Processing

3.2.1 Data Editing

During data collection, project staff worked to prepare the source data for release in the restricted-use files. This involved reviewing data collected from institutions for precision and accuracy and preparing documentation to aid data users. After keying and coding, as described in section 2.3.5, data were extracted and stored in SAS data files. Transcript data were reviewed daily for inconsistencies and potential keying errors. If keying errors were discovered, the data were corrected. In addition to identifying irregularities, project staff performed the following activities to ensure consistency across transcripts.

Bulk credit review. *Bulk credit* is defined as the total sum of credits a student received for multiple courses or tests. Bulk credits are typically associated with transfer of credit from one institution to another, with the credits appearing as a bulk, undifferentiated sum on the transcript of the receiving institution. Instances of bulk credit were reviewed in an effort to associate portions of the total credit with individual courses or tests. Bulk credit could be differentiated if, for example, a transcript from another institution lists the credits per course (or test) explicitly. For example, suppose a student's transcript from School A indicates that six credits were accepted from School B. Suppose also that the student's transcript from School B indicates that three credits were earned for MA 425 and three credits earned for COMP 116. In this case, the six credits accepted at School A would be associated with the two courses listed on School B's transcript. If the credit total could not be decomposed, the credit was left in the data as a single bulk sum.

Data review. Project staff routinely inspected data to help verify that proper relationships were maintained between variables and that all edits were applied appropriately and consistently. The following steps were conducted in editing the data files for release:

- Labels were assigned to the expected values of categorical variables, which helped reveal any unexpected values. Unexpected values were investigated, edited or labeled as appropriate, or set to a missing data code (see table 7 below for further details) and documented in the codebook.

- The minimum, maximum, mean, and median values of continuous variables were examined to assess reasonableness of responses. Anomalous distributions and values were investigated and corrected or documented.

- Cross-tabulations of similar and related items were generated to verify the proper relationships between variables and missing data codes held.

Table 7. Description of missing data codes: 2018–19

Missing data code	Data label	Description
-2	Placeholder records	Used to hold a place for a record with an unknown amount of missing data.
-3	Skipped—not applicable	Item does not apply to the respondent.
-5	Nonrespondent	Used for all student-level variables when a sample member is a nonrespondent to PETS.
-9	Missing—response not provided	Respondent saw item and did not provide an answer.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

While editing data, staff documented notes, code (as applicable), response options, logical recoding, and the "applies to" text for each delivered variable from the PETS data collection. For the transcript data elements keyed and coded, see appendix D.

Placeholders. Records were added to the PETS source files to hold a place for nonrespondents and unknown quantities of missing data. If no data were reported for terms, courses, or degrees/majors, the associated file includes a single placeholder record to indicate that the data were not submitted by the institution; therefore, the number of records missing is unknown (e.g., if a transcript was not received from a particular institution, it is not known how many course records are missing, in which case the dataset will include a placeholder record for that institution to represent the missing data).

Naming scheme. All variable names include a prefix to help users easily identify the source of the data used in the variable and the appropriate file or level at which the data are reported. The first two characters of source variables indicate the data source, the third character indicates the data level or file, and the remainder describes the information captured by the variable. The first two characters for PETS source variables are "TR."

The following third characters are included on source data files for PETS:

- C—course,
- D—degree/major field of study,
- M—term,
- S—student institution, and
- X—test.

As an example of the naming scheme, observe that the variable TRSHIGHAWD (Highest award at the institution) indicates that the data are from transcripts (TR) and reported on the student institution file as a student-by-institution-level variable (S). All derived PETS variables begin with the characters "QT." Appendix E provides a complete list of all variables, names, and labels that have been created for the BPS:12 PETS restricted-use files.

3.2.2 Derived Variable Construction

A set of derived variables was constructed by combining transcript data into new variables intended to facilitate analyses. This includes calculated variables (variables that were created and included on the transcript source files, such as normalized grades or credits) and analysis variables (student-level variables, such as aggregations of credits by subjects or time periods). When only partial information was available, these variables calculated the value based on known information. For example, if one out of 10 courses was missing earned credit for the course, the total earned credit variable would sum the values from the other nine courses. (For a listing of the analysis variables derived for BPS:12 PETS, see appendix E.) For details about the creation of each analysis variable, see the variable descriptions in the PowerStats documentation and codebooks for the restricted-use files.

Chapter 4. Weighting and Variance Estimation

This chapter provides information about the weighting procedures for BPS:12 PETS. The development of statistical analysis weights for the BPS:12 PETS sample is discussed in section 4.1. Procedures that can be used to produce estimates of sampling variances, computed using Taylor-series linearization and bootstrap replication techniques, are discussed in section 4.2. This section also describes how the analysis strata, primary sampling unit (PSU) variables, and bootstrap replicate weights were constructed. Section 4.3 gives weighted and unweighted response rates. Section 4.4 discusses the accuracy and precision of estimates in terms of variability and bias.

The use of weights is essential to produce estimates that are representative of the target population of FTB undergraduate students from the NPSAS:12 sample. An analysis weight should be used to produce survey estimates. When testing hypotheses (e.g., conducting *t* tests, regression analyses, etc.) using weighted data from a study such as BPS:12 PETS that has a complex sampling design, analysts should also use appropriate methods to estimate variances. Two such methods are the Taylor-series linearization method and bootstrap replication. PSU and stratum identifiers are provided in the data file for use with the Taylor-series method, with or without the correction for assuming a finite population, and bootstrap replicate weights are provided for use with the bootstrap replication procedure.

4.1 Analysis Weights

BPS:12 PETS sample members are a subset of the NPSAS:12 sample, so their weights for analysis were derived from the NPSAS:12 weights. The NPSAS:12 student design weights for BPS:12 PETS sample members were adjusted to account for subsampling and for unknown student eligibility and nonresponse. The BPS:12 PETS sample members were also calibrated to weighted estimates obtained from NPSAS:12 and population estimates obtained from the IPEDS:2010–11 fall enrollment file (EF2011A) and the IPEDS:2011–12 student financial aid and net price file (SFA1112). IPEDS data files can be downloaded from the online IPEDS data center at https://nces.ed.gov/ipeds/use-the-data.

The BPS:12 PETS sample consisted of the 35,540 sample members who also made up the BPS:12/17 sample. BPS:12 PETS attempted to collect transcripts for the

entire sample regardless of a sample member's response status to the BPS:12/14 or BPS:12/17 student survey data collections. The first weight, WTC000, is the PETS response weight and applies to all individuals for whom a transcript was received from at least one of their institutions. The second weight, WTD000, applies to all PETS respondents who were also (1) NPSAS:12 study members, (2) BPS:12/14 respondents, and (3) BPS:12/17 respondents. WTD000 is considered the PETS panel weight.

Each weight component represents either a probability of selection or a weight adjustment. Using a weighting methodology described by Folsom and Singh (2000), staff computed all nonresponse and poststratification adjustments using the procedure WTADJUST in SUDAAN (RTI International 2012). The WTADJUST procedure uses a constrained logistic model to predict response using bounds for adjustment factors and bounds on variance inflation. A key feature and advantage of this procedure is that the weight adjustments and weight trimming and smoothing are all accomplished in one step.

Staff trimmed extremely large or extremely small weights by specifying minimum and/or maximum values prior to nonresponse and poststratification adjustments. In general, these bounds were set equal to the median value plus or minus 2.5 times the interquartile range, where the median and interquartile range were defined for each level-of-institution sector. Staff then set upper and lower bounds on the weight adjustment factors calculated by the weight adjustment procedure. For the nonresponse adjustments, staff initially set the lower bound at 1; for the poststratification adjustment, staff initially set the lower bound at 0.01. The final lower bound for nonresponse adjustments remained 1, while the final poststratification adjustment had a lower bound reduced to 0.00001 and was unbounded above in order to achieve convergence. During model refinement, staff ran the WTADJUST procedure with no upper limit. Once staff achieved convergence of the model, they tightened weight adjustment bounds to reduce the magnitude of the weight adjustment factors and the unequal weighting effects (UWEs). UWEs can be inflated by weight adjustments, in addition to unequal probabilities of selection during sampling. The UWE is defined as

$$UWE = n\sum w^2 / \left(\sum w\right)^2 ,$$

where

n = the sample size
w = the final student weight.

In this way, staff controlled the extreme weights and reduced the design effect due to unequal weighting. The WTADJUST procedure is designed so that the sum of the

unadjusted weights for all eligible units equals the sum of the adjusted weights for the respondents. The exact formula for the weight adjustment factors calculated by the SUDAAN WTADJUST procedure can be found in the SUDAAN User's Manual (RTI International 2012).

4.1.1 Initial Base Weight for BPS:12 PETS

The NPSAS:12 data file documentation (Wine, Bryan, and Siegel 2014) describes the development of the NPSAS:12 weights. The analysis weights compensated for the unequal probability of selection of institutions and students in the NPSAS:12 sample. The first eight weight components follow:

1. institution sampling weight (WT1);
2. institution subsampling weight (WT2);
3. institution multiplicity adjustment (WT3);
4. institution nonresponse adjustment (WT4);
5. institution poststratification adjustment (WT5);
6. student sampling weight (WT6);
7. student multiplicity adjustment (WT7); and
8. student unknown eligibility adjustment (WT8).

Of the 20,574 FTB students who did not respond to the NPSAS survey or were classified as non-study members, 7,088 were subsampled for inclusion in the BPS:12/14 sample. This resulted in an additional adjustment (WT9) to account for subsampling of students for inclusion in BPS:12/14. During BPS:12/14, some BPS:12/14 sample members were determined to be ineligible, and an unknown eligibility adjustment (WT10) was developed.

The BPS:12/17 student survey sample consisted of the 35,540 of the 37,170 BPS:12/14 sample members who were determined to be study eligible as of the end of the BPS:12/14 data collection. The BPS:12 PETS sample consists of the same 35,540 members, and the base weight was formed as the product of all of these adjustment factors just as it was for BPS:12/17. Specifically, for each student, the BPS:12 PETS base weight was computed as

B17WT1 = WT1 × WT2 × WT3 × WT4 × WT5 × WT6 × WT7 × WT8 × WT9 × WT10.

B17WT1 was used as the base weight for both WTC and WTD.

4.1.2 Unknown Eligibility Adjustments (PETSWT1 and PETSWT2)

As stated above, the unknown eligibility adjustment developed for ineligible individuals identified as part of BPS:12/14 was included in the BPS:12 PETS base weight. For the BPS:12/17 and BPS:12 PETS data collections, staff could not determine final eligibility status for the double nonrespondents (i.e., those who were nonrespondents in both NPSAS:12 and BPS:12/14) who were also nonrespondents to BPS:12/17 and BPS:12 PETS. Overall, approximately 530 of the 35,540 sample members were found to be ineligible. The remaining sample of 35,010 students included 1,460 students whose eligibility was unknown at the end of data collection.

To adjust for this unknown status within the double nonrespondent group, staff estimated the rate of eligibility of unknown status to be the same as that observed among students of known status. Table 8 shows the weight adjustment factors applied to the students with unknown eligibility status, referred to as PETSWT1. For the students known to be eligible, the weight adjustment factor was set equal to 1. This unknown eligibility adjustment is the same for both WTC000 and WTD000.

Summary statistics of the unknown eligibility weight adjustment factors across all sample members follow:

- minimum: 0.71;
- median: 1.00; and
- maximum: 1.00.

Table 8. Weight adjustment factors for unknown student eligibility status among double nonrespondents: 2012–17

Weighting class—collapsed institution	Number adjusted for unknown eligibility	Weight adjustment factor (PETSWT1)
Total	**1,460**	
Public 2-year or less-than-2-year	250	0.91
Public 4-year and private nonprofit	90	0.96
Private for-profit less-than-2-year	120	0.71
Private for-profit 2-year	210	0.82
Private for-profit 4-year	800	0.82

NOTE: The minimum adjustment factor found in the analysis data is 1.00 as individuals with unknown eligibility are not included. Sample sizes rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

After the unknown eligibility adjustment was applied to all individuals with unknown eligibility, a second adjustment, identified as PETSWT2, was made to the known ineligible individuals. Their weights were adjusted upward to increase their total weight to be equal to their original weight plus the amount of weight reduced by the unknown eligibility adjustment. This was done so that the known ineligibles

represented the total weight for known and unknown eligibility adjustments as the ineligible individuals were to be used in the later poststratification step to adjust the control totals.

4.1.3 Nonresponse Adjustments (PETSCWT1 and PETSDWT1)

The next adjustment was for study nonresponse. The analysis unit for this study was the student, even though some students attended multiple institutions. Therefore, response was defined at the student level. Despite this, nonresponse was caused by institutions not providing data and was modeled using institution characteristics, not student data. Because each student may have attended multiple institutions, staff conducted a single nonresponse adjustment using aggregate institution information for each student.

Two separate nonresponse adjustments were modeled, one for WTC000 and one for WTD000. Each model included the 35,010 students who were eligible, or assumed eligible, and were not deceased. Independent model variables for the models were those that were (1) considered to be predictive of response status, (2) nonmissing for both study respondents and nonrespondents, and (3) from the NPSAS:12 institution nonresponse adjustment models. Variables in the nonresponse modeling included all the following predictor variables, as well as certain important interaction terms:

- ever attended flags for control and level of institution;
- ever attended a Historically Black College or University;
- ever attended a Hispanic-Serving Institution;
- ever attended 2015 Carnegie Basic classification flags;
- ever attended flags for degree of urbanization of institutions;
- ever attended flags for region of institution;
- IPEDS response disposition;
- total student enrollment (maximum across institutions attended);
- female student enrollment (maximum across institutions attended);
- percentage of students enrolled who were Hispanic (median across institutions attended);
- percentage of students enrolled who were Asian or Pacific Islander, non-Hispanic (maximum across institutions attended);

- percentage of students enrolled who were Black, non-Hispanic (minimum across institutions attended);
- institution count of full-time and part-time office and administrative support employees (minimum number across institutions attended); and
- number of institutions attended.

To detect important interactions for each of the nonresponse models, a Chi-squared automatic interaction detection (CHAID) analysis was performed on the predictor variables (Kass 1980). CHAID is a hierarchical clustering algorithm that successively partitions individuals according to categorical predictors for a categorical dependent variable. The algorithm begins with all study individuals as a whole and cycles over each predictor, finding for each predictor an optimal partition of the individuals according to its levels. Staff retained the most significant optimal partition and applied the CHAID algorithm to the members of that partition to find further partitions using the remaining predictors. The algorithm was stopped after a specified number of partitioning steps or if the algorithm failed to find statistical significance among any of the partitions at a given step.

The CHAID analysis divided the data into segments that differed with respect to the response flags. CHAID was run for up to three levels, resulting in the identification of two-way and three-way interactions. The interaction terms (CHAID segments) were treated as additional candidate predictor variables. Candidate predictor variables that impeded the creation of a convergent model were dropped from the final model.

Staff computed the weight adjustments using SUDAAN's WTADJUST procedure as described in the beginning of section 4.1.

Table 9 shows the final predictor variables used in the model to determine nonresponse weight adjustments and the average weight adjustment factors resulting from these variables for the PETS response weight, WTC000. The WTC000 nonresponse weight adjustment factors have the following characteristics:

- minimum: 1.00;
- median: 1.11; and
- maximum: 28.72.

The final lower bound was 1.0, and the final upper bound was unbounded to achieve convergence for this weight adjustment.

Table 9. WTC000 weight adjustment factors for nonresponse adjustment: 2012–17

Model predictor variables	Number of respondents	Weighted response rate[1]	Average weight adjustment (PETSCWT1)
Total	**25,910**	**84.7**	**1.27**
Ever attended flags for control and level of institution			
Public less-than-2-year	290	82.8	1.25
Public 2-year	14,640	87.8	1.16
Public 4-year, non-doctorate-granting	4,210	90.8	1.10
Public 4-year, doctorate-granting	7,380	92.4	1.07
Private nonprofit less-than-4-year	750	68.9	1.62
Private nonprofit 4-year, non-doctorate-granting	2,840	89.2	1.11
Private nonprofit 4-year, doctorate-granting	4,510	92.2	1.10
Private for-profit less-than-2-year	1,220	67.3	1.49
Private for-profit 2-year	2,380	72.0	1.62
Private for-profit 4-year	6,070	83.3	1.34
Ever attended a Historically Black College or University	520	84.2	1.19
Ever attended a Hispanic-Serving Institution	8,140	83.9	1.31
Ever attended 2015 Carnegie Basic classification flags			
Associate's Colleges	17,740	87.1	1.21
Doctoral Universities	8,670	92.5	1.09
Master's Colleges and Universities	7,560	91.1	1.11
Baccalaureate Colleges	4,040	85.9	1.23
Special Focus Institutions and Other	3,340	84.3	1.40
Unavailable or unknown	2,230	70.1	1.62
Ever attended flags for degree of urbanization of institutions			
City: Large	12,190	87.4	1.21
City: Midsize	7,120	87.4	1.26
City: Small	6,020	89.2	1.19
Suburb: Large	9,220	85.1	1.27
Suburb: Midsize	1,540	85.4	1.23
Suburb: Small	980	95.5	1.06
Town: Fringe	930	91.1	1.12
Town: Distant	2,710	92.5	1.08
Town: Remote	1,430	92.1	1.09
Rural: Fringe	2,280	92.4	1.11
Rural: Distant	560	93.3	1.09
Rural: Remote	110	84.9	1.42
Ever attended flags for region of institution[2]			
New England	1,630	84.8	1.25
Mid East	5,190	86.3	1.23
Great Lakes	5,890	88.2	1.20
Plains	2,220	84.2	1.27
Southeast	6,950	84.3	1.27
Southwest	4,950	92.0	1.14
Rocky Mountains	1,730	90.6	1.13
Far West	4,900	79.9	1.44
Puerto Rico	10	98.4	1.03
Integrated Postsecondary Education Data System (IPEDS) response disposition			
Ever attended an institution that responded to IPEDS student financial aid data collection	25,420	85.4	1.22

See notes at end of table.

Table 9. WTC000 weight adjustment factors for nonresponse adjustment: 2012–17—Continued

Model predictor variables	Number of respondents	Weighted response rate[1]	Average weight adjustment (PETSCWT1)
Total student enrollment (maximum across institutions attended)[3]			
0–5,790	5,000	69.5	1.77
5,791–18,441	6,080	80.3	1.27
18,442–35,804	7,060	88.3	1.14
35,805 or more	7,760	93.1	1.08
Female student enrollment (maximum across institutions attended)[3]			
0–3,646	5,020	69.9	1.77
3,647–10,270	6,160	81.1	1.25
10,271–19,391	6,980	87.7	1.15
19,392 or more	7,750	93.0	1.08
Percentage of students enrolled who were Hispanic (median across institutions attended)[3]			
0 < median ≤ 5.27%	6,580	85.4	1.26
5.27% < median ≤ 9.75%	6,760	85.2	1.23
9.75% < median ≤ 23.39%	6,430	87.4	1.22
Median > 23.39%	6,140	80.7	1.39
Percentage of students enrolled who were Asian or Pacific Islander, non-Hispanic (maximum across institutions attended)[3]			
0 < maximum ≤ 1.78%	6,200	81.1	1.35
1.78% < maximum ≤ 3.80%	6,440	84.1	1.29
3.80% < maximum ≤ 7.30%	6,400	85.8	1.22
Maximum > 7.30%	6,870	86.7	1.24
Percentage of students enrolled who were Black, non-Hispanic (minimum across institutions attended)[3]			
0 < minimum ≤ 3.99%	7,180	89.7	1.18
3.99% < minimum ≤ 7.94%	7,080	89.1	1.17
7.94% < minimum ≤ 14.70%	5,810	78.3	1.45
Minimum > 14.70%	5,840	77.7	1.34
Institution count of full-time and part-time office and administrative support employee count (minimum across institutions attended)[3]			
0–9 or missing	5,540	72.5	1.58
10–41	5,900	87.1	1.24
42–116	7,100	85.7	1.19
117 or more	7,370	87.0	1.15
Total number of institutions attended			
1 institution	9,110	74.2	1.50
2 institutions	8,340	88.1	1.23
3 institutions	4,740	94.4	1.09
4 institutions	2,140	95.6	1.08
5 or more institutions	1,590	98.2	1.02
CHAID segments in nonresponse adjustment model			
Never attended an institution that responded to IPEDS student financial aid data collection	490	20.1	4.14
Ever attended an institution that responded to IPEDS student financial aid data collection; attended four total institutions; and ever attended a public 4-year, doctorate-granting institution	1,020	98.3	1.02

See notes at end of table.

Table 9. WTC000 weight adjustment factors for nonresponse adjustment: 2012–17—Continued

Model predictor variables	Number of respondents	Weighted response rate[1]	Average weight adjustment (PETSCWT1)
Ever attended an institution that responded to IPEDS student financial aid data collection; attended four total institutions; and ever attended an institution other than a public 4-year, doctorate-granting institution	1,120	90.3	1.12
Ever attended an institution that responded to IPEDS student financial aid data collection, attended three total institutions, and had 117 or more full-time and part-time institution office and administrative support employees across all institutions attended	730	98.5	1.01
Ever attended an institution that responded to IPEDS student financial aid data collection, attended three total institutions, and the minimum institution number of full-time and part-time office and administrative support employees across all institutions attended was between 10 and 116	2,640	95.2	1.07
Ever attended an institution that responded to IPEDS student financial aid data collection, attended three total institutions, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended that was missing or less than 9	1,360	88.2	1.17
Ever attended an institution that responded to IPEDS student financial aid data collection, attended two total institutions, and had 117 or more institution full-time and part-time office and administrative support employees across all institutions attended	2,230	94.1	1.07
Ever attended an institution that responded to IPEDS student financial aid data collection, attended two total institutions, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended between 42 and 116	2,520	88.5	1.13
Ever attended an institution that responded to IPEDS student financial aid data collection, attended two total institutions, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended between 10 and 41	2,010	91.7	1.12
Ever attended an institution that responded to IPEDS student financial aid data collection, attended two total institutions, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended that was missing or less than 9	1,490	70.7	1.45
Ever attended an institution that responded to IPEDS student financial aid data collection, attended one institution, and had 117 or more institution full-time and part-time office and administrative support employees across all institutions attended	4,160	79.5	1.24
Ever attended an institution that responded to IPEDS student financial aid data collection, attended one institution, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended between 10 and 116	4,000	74.5	1.40
Ever attended an institution that responded to IPEDS student financial aid data collection, attended one institution, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended that was missing or less than 9	580	41.8	2.68

[1] Weighted response rate calculated using base weight adjusted for unknown eligibility.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
[3] Categories for total enrollment, female enrollment, race percentages, and employee counts were defined by quartiles.
NOTE: CHAID = Chi-squared automatic interaction detection. Sample sizes rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table 10 shows the final predictor variables used in the model to determine nonresponse weight adjustments and the average weight adjustment factors resulting from these variables for the PETS response crossed with the BPS panel response weight, WTD000. The WTD000 nonresponse weight adjustment factors have the following characteristics:

- minimum: 0.21;
- median: 2.04; and
- maximum: 59.36.

The final lower and upper bounds were unbounded to achieve convergence for this weight adjustment.

Table 10. WTD000 weight adjustment factors for nonresponse adjustment: 2012–17

Model predictor variables	Number of respondents	Weighted response rate[1]	Average weight adjustment (PETSDWT1)
Total	**15,350**	**48.4**	**2.50**
Ever attended flags for control and level of institution			
Public less-than-2-year	170	45.2	2.43
Public 2-year	8,570	48.9	2.21
Public 4-year, non-doctorate-granting	2,680	53.5	1.92
Public 4-year, doctorate-granting	5,250	61.3	1.61
Private nonprofit less-than-4-year	370	31.4	3.58
Private nonprofit 4-year, non-doctorate-granting	1,920	56.7	1.81
Private nonprofit 4-year, doctorate-granting	3,200	63.8	1.63
Private for-profit less-than-2-year	610	27.1	3.88
Private for-profit 2-year	1,220	33.1	4.67
Private for-profit 4-year	3,330	41.9	2.88
Ever attended a Historically Black College or University	350	50.1	2.07
Ever attended a Hispanic-Serving Institution	4,780	46.6	2.51
Ever attended 2015 Carnegie Basic classification flags			
Associate's Colleges	10,220	48.0	2.49
Doctoral Universities	5,960	61.1	1.73
Master's Colleges and Universities	5,070	58.1	1.87
Baccalaureate Colleges	2,480	52.5	2.21
Special Focus Institutions and Other	1,910	50.4	2.65
Unavailable or unknown	1,170	31.5	3.68
Ever attended flags for degree of urbanization of institutions			
City: Large	7,380	51.4	2.27
City: Midsize	4,310	52.8	2.64
City: Small	3,800	54.7	2.06
Suburb: Large	5,560	50.0	2.51
Suburb: Midsize	950	50.3	2.28
Suburb: Small	650	58.8	1.78
Town: Fringe	620	61.1	1.86
Town: Distant	1,750	56.3	1.89
Town: Remote	900	52.2	2.03
Rural: Fringe	1,350	51.4	2.17
Rural: Distant	300	48.7	2.22
Rural: Remote	60	46.5	2.67

See notes at end of table.

Table 10. WTD000 weight adjustment factors for nonresponse adjustment: 2012–17—Continued

Model predictor variables	Number of respondents	Weighted response rate[1]	Average weight adjustment (PETSDWT1)
Ever attended flags for region of institution[2]			
New England	1,080	52.3	2.10
Mid East	3,190	50.7	2.32
Great Lakes	3,370	51.0	2.56
Plains	1,420	50.8	2.33
Southeast	4,140	49.3	2.73
Southwest	2,780	47.8	2.43
Rocky Mountains	1,070	56.5	1.99
Far West	2,890	46.4	2.65
Puerto Rico	10	32.5	3.25
Integrated Postsecondary Education Data System (IPEDS) response disposition			
Ever attended an institution that responded to IPEDS student financial aid data collection	15,120	48.9	2.33
Ever attended an institution that responded to IPEDS 12-month enrollment data collection	15,310	48.8	2.37
Total student enrollment (maximum across institutions attended)[3]			
0–5,790	2,630	34.0	4.21
5,791–18,441	3,550	43.4	2.50
18,442–35,804	4,380	52.4	2.03
35,805 or more	4,790	56.5	1.99
Female student enrollment (maximum across institutions attended)[3]			
0–3,646	2,650	34.5	4.20
3,647–10,270	3,580	43.5	2.49
10,271–19,391	4,360	53.5	2.00
19,392 or more	4,760	55.6	2.02
Percentage of students enrolled who were Hispanic (median across institutions)[3]			
0 < median ≤ 5.27%	3,840	49.1	2.76
5.27% < median ≤ 9.75%	4,160	51.6	2.23
9.75% < median ≤ 23.39%	3,840	50.1	2.31
Median > 23.39%	3,510	42.8	2.74
Percentage of students enrolled who were Asian or Pacific Islander, non-Hispanic (maximum across institutions attended)[3]			
0 < maximum ≤ 1.78%	3,210	40.7	3.39
1.78% < maximum ≤ 3.80%	3,700	46.4	2.55
3.80% < maximum ≤ 7.30%	3,920	48.9	2.31
Maximum > 7.30%	4,520	55.2	1.99
Percentage of students enrolled who were Black, non-Hispanic (minimum across institutions attended)[3]			
0 < minimum ≤ 3.99%	4,520	53.9	2.28
3.99% < minimum ≤ 7.94%	4,470	55.0	1.99
7.94% < minimum ≤ 14.70%	3,240	43.0	2.94
Minimum > 14.70%	3,130	37.0	3.09

See notes at end of table.

Table 10. WTD000 weight adjustment factors for nonresponse adjustment: 2012–17—Continued

Model predictor variables	Number of respondents	Weighted response rate[1]	Average weight adjustment (PETSDWT1)
Institution count of full-time and part-time office and administrative support employees (minimum across institutions attended)[3]			
0–9 or missing	3,000	35.5	3.82
10–41	3,450	48.8	2.42
42–116	4,360	51.0	2.09
117 or more	4,540	50.9	2.08
Total number of institutions attended			
1 institution	4,780	36.7	3.31
2 institution	5,130	52.5	2.39
3 institution	2,970	58.1	1.96
4 institution	1,420	62.4	1.82
5 or more institutions	1,050	63.6	1.80
CHAID segments in nonresponse adjustment model			
Never attended an institution that responded to IPEDS student financial aid data collection	220	7.9	14.31
Ever attended an institution that responded to IPEDS student financial aid data collection, attended one institution, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended that was missing or less than 9	270	15.2	7.08
Ever attended an institution that responded to IPEDS student financial aid data collection, attended one institution, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended between 10 and 41	740	31.4	3.57
Ever attended an institution that responded to IPEDS student financial aid data collection, attended one institution, and had a minimum institution number of full-time and part-time institution office and administrative support employees across all institutions attended between 42 and 116	1,320	36.8	2.83
Ever attended an institution that responded to IPEDS student financial aid data collection, attended one institution, and had 117 or more institution full-time and part-time office and administrative support employees across all institutions attended	2,290	41.4	2.55
Ever attended an institution that responded to IPEDS student financial aid data collection, attended two total institutions, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended that was missing or less than 9	810	32.3	3.28
Ever attended an institution that responded to IPEDS student financial aid data collection, attended two total institutions, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended between 10 and 41	1,190	50.3	2.26
Ever attended an institution that responded to IPEDS student financial aid data collection, attended two total institutions, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended between 42 and 116	1,570	54.8	1.87
Ever attended an institution that responded to IPEDS student financial aid data collection, attended two total institutions, and 117 or more institution full-time and part-time office and administrative support employees across all institutions attended	1,520	60.1	1.69
Ever attended an institution that responded to IPEDS student financial aid data collection, attended three total institutions, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended that was missing or less than 9	730	41.4	2.61

See notes at end of table.

Table 10. WTD000 weight adjustment factors for nonresponse adjustment: 2012–17—Continued

Model predictor variables	Number of respondents	Weighted response rate[1]	Average weight adjustment (PETSDWT1)
Ever attended an institution that responded to IPEDS student financial aid data collection, attended three total institutions, and had a minimum institution number of full-time and part-time office and administrative support employees across all institutions attended between 10 and 41	820	57.3	2.03
Ever attended an institution that responded to IPEDS student financial aid data collection, attended three total institutions, and had a minimum institution number of full-time and part-time institution office and administrative support employees across all institutions attended between 42 and 116	880	62.2	1.65
Ever attended an institution that responded to IPEDS student financial aid data collection, attended three total institutions, and 117 or more institution full-time and part-time office and administrative support employees across all institutions attended	540	68.0	1.47
Ever attended an institution that responded to IPEDS student financial aid data collection, attended four or more total institutions, and ever attended an Associate's College	1,430	69.8	1.51
Ever attended an institution that responded to IPEDS student financial aid data collection, attended four or more total institutions, and never attended an Associate's College	1,040	49.7	2.21

[1] Weighted response rate calculated using base weight adjusted for unknown eligibility.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
[3] Categories for total enrollment, female enrollment, race percentages, and employee counts were defined by quartiles.
NOTE: CHAID = Chi-squared automatic interaction detection. Sample sizes rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

4.1.4 Poststratification Adjustment (PETSCWT2 and PETSDWT2)

To ensure that the weighted student sample adequately represents the student population, staff used SUDAAN WTADJUST to further adjust the student weights so that they sum to known population totals for key characteristics.

The control totals for FTB students, by spring and fall enrollment as well as yearly enrollment, for the BPS:12/14 weights were modified from weighted sums created during NPSAS:12 and from the IPEDS:2010–11 fall enrollment file (EF2011A) and IPEDS:2011–12 student financial aid and net price file (SFA1112). These same control totals were used for the BPS:12/17 poststratification adjustments. The control totals were again used for the BPS:12 PETS poststratification adjustment for PETS response, weight WTC000. Individuals who were confirmed as ineligible non-FTB students during BPS:12/17 and BPS:12 PETS data collections, along with deceased individuals, were included in the poststratification adjustments, and their weights were set to zero after the adjustment. The sum of the final weights estimates the number of FTBs in 2011–12 who were still alive at the time of the BPS:12 PETS data collection. The resulting weight sums, with the ineligible and deceased individuals removed, were used as the control totals for the poststratification

adjustment for PETS response crossed with BPS panel response weight, WTD000. Therefore, the weight sums agreed for the final WTC000 and WTD000 weights other than minor differences due to rounding.

The BPS:12/14 control totals were established by summing the NPSAS:12 weights for the students identified as FTB students (including deceased students) and were derived from the sums of the NPSAS:12 weights for the following:

- full-year FTB undergraduate student enrollment (full and part time), by control and level of institution;
- estimated number of FTB Pell Grant recipients, by control and level of institution;
- estimated total amount of Pell Grants received by all FTB students, by control and level of institution;
- estimated total of Stafford Loan amounts received by all FTB students, by control and level of institution;
- estimated number of FTB federal loan recipients, by control and level of institution; and
- estimated total of federal loan amounts received by all FTB students, by control and level of institution.

The following variables, derived from the EF2011A and SFA1112, were also used for developing control totals:

- fall FTB undergraduate student enrollment (full and part time), by control and level of institution;
- fall FTB undergraduate student enrollment (full time), by control and level of institution;
- number of full-time FTB students receiving Pell Grants, by control and level of institution;
- amount of Pell Grants awarded to full-time FTB students, by control and level of institution;
- number of full-time FTB students receiving federal student loans, by control and level of institution; and
- amount of federal student loans awarded to full-time FTB students, by control and level of institution.

Control totals for number and amount of Pell Grants and federal student loans were estimated from both NPSAS FTB students and IPEDS first-time students to control

for potential inaccuracies within each data source. IPEDS only had data on fall first-time students, while the NPSAS FTB definition was based on year-round enrollment. Using both sources provided a better picture of spring and part-time enrollees as well. Table 11 shows the variables used for the poststratification, the values of the control totals, and the average weight adjustment factors for each variable for the cross-sectional weight, WTC000. Statistics for the poststratification weight adjustment factors follow:

- minimum: 0.01;
- median: 1.49; and
- maximum: 45.59.

The poststratification adjustment model was initialized with a lower bound of 0.00001 and was unbounded above in order to achieve convergence. After poststratification was performed, staff computed the final PETS response weight (WTC000) as the product of the weight components described in this section:

WTC000 = B17WT1 × PETSWT1 × PETSWT2 × PETSCWT1 × PETSCWT2.

Table 11. WTC000 weight adjustment factors for student poststratification: 2012–17

Poststratification categories	Control total	PETS response weights—average weight adjustment factor (PETSCWT2)
Full-year FTB undergraduate student enrollment (full and part time), by control and level of institution		
Public less-than-2-year	31,000	4.33
Public 2-year	1,662,800	1.22
Public 4-year, non-doctorate-granting	422,810	1.25
Public 4-year, doctorate-granting	868,730	1.35
Private nonprofit less-than-4-year	26,990	3.36
Private nonprofit 4-year, non-doctorate-granting	279,210	1.18
Private nonprofit 4-year, doctorate-granting	382,100	1.67
Private for-profit less-than-2-year	165,110	2.21
Private for-profit 2-year	178,020	2.11
Private for-profit 4-year	260,270	2.63
Fall FTB undergraduate student enrollment (full and part time), by control and level of institution		
Public less-than-2-year	23,520	4.33
Public 2-year	1,219,290	1.23
Public 4-year, non-doctorate-granting	353,230	1.24
Public 4-year, doctorate-granting	774,560	1.35
Private nonprofit 4-year, non-doctorate-granting	242,150	1.19
Private nonprofit 4-year, doctorate-granting	274,870	2.21
Private for-profit less-than-2-year	112,950	2.11
Private for-profit 2-year	123,780	2.63
Private for-profit 4-year	139,930	6.54

See notes at end of table.

Table 11. WTC000 weight adjustment factors for student poststratification: 2012–17—Continued

Poststratification categories	Control total	PETS response weights—average weight adjustment factor (PETSCWT2)
Fall FTB undergraduate student enrollment (full time), by control and level of institution		
Public less-than-2-year	15,930	1.63
Public 2-year	733,310	1.37
Public 4-year, non-doctorate-granting	300,040	1.37
Public 4-year, doctorate-granting	754,380	3.27
Private nonprofit less-than-4-year	16,380	1.18
Private nonprofit 4-year, non-doctorate-granting	232,190	1.56
Private nonprofit 4-year, doctorate-granting	268,230	2.18
Private for-profit less-than-2-year	92,960	2.33
Private for-profit 2-year	114,620	2.59
Private for-profit 4-year	101,620	7.96
Number of full-time FTB students receiving Pell Grants, by control and level of institution		
Public 2-year	424,580	1.78
Public 4-year, non-doctorate-granting	142,350	1.44
Public 4-year, doctorate-granting	267,200	1.39
Private nonprofit 4-year, non-doctorate-granting	88,850	1.18
Private nonprofit 4-year, doctorate-granting	76,620	1.27
Private for-profit 4-year	84,830	3.07
Amount of Pell Grants awarded to full-time FTB students, by control and level of institution		
Public 2-year	1,810,222,760	3.18
Public 4-year, non-doctorate-granting	615,315,550	2.99
Public 4-year, doctorate-granting	1,150,900,320	6.63
Private nonprofit 4-year, non-doctorate-granting	369,686,330	1.42
Private nonprofit 4-year, doctorate-granting	321,115,000	1.31
Private for-profit 4-year	388,880,100	1.39
Number of full-time FTB students receiving federal student loans, by control and level of institution		
Public 2-year	194,860	3.90
Public 4-year, non-doctorate-granting	146,300	1.14
Public 4-year, doctorate-granting	404,310	1.23
Private nonprofit less-than-4-year	14,100	3.03
Private nonprofit 4-year, non-doctorate-granting	151,900	3.26
Private nonprofit 4-year, doctorate-granting	159,550	2.56
Private for-profit 4-year	93,050	1.33
Total amount of federal student loans awarded to all FTB students, by control and level of institution		
Public 2-year	907,612,890	1.29
Public 4-year, non-doctorate-granting	795,740,730	1.35
Public 4-year, doctorate-granting	2,261,170,100	1.13
Private nonprofit less-than-4-year	92,909,670	1.11
Private nonprofit 4-year, non-doctorate-granting	916,726,380	2.85
Private nonprofit 4-year, doctorate-granting	961,126,030	1.33
Private for-profit 4-year	721,267,970	1.29

See notes at end of table.

Table 11. WTC000 weight adjustment factors for student poststratification: 2012–17—Continued

Poststratification categories	Control total	PETS response weights—average weight adjustment factor (PETSCWT2)
Estimated number of FTB Pell Grant recipients, by control and level of institution[1]		
Public less-than-2-year	15,870	1.35
Public 2-year	794,360	1.13
Public 4-year, non-doctorate-granting	196,430	1.11
Public 4-year, doctorate-granting	316,450	2.85
Private nonprofit less-than-4-year	19,110	1.33
Private nonprofit 4-year, non-doctorate-granting	117,810	1.22
Private nonprofit 4-year, doctorate-granting	122,240	1.22
Private for-profit 2-year	167,580	5.03
Private for-profit 4-year	196,020	1.02
Estimated total of Pell Grants received by all FTB students, by control and level of institution[1]		
Public less-than-2-year	61,015,790	1.16
Public 2-year	2,504,341,070	2.74
Public 4-year, non-doctorate-granting	748,119,530	1.33
Public 4-year, doctorate-granting	1,310,100,200	1.22
Private nonprofit less-than-4-year	75,416,370	1.22
Private nonprofit 4-year, non-doctorate-granting	467,389,770	5.03
Private nonprofit 4-year, doctorate-granting	509,921,540	1.02
Private for-profit less-than-2-year	675,337,820	1.16
Private for-profit 2-year	675,186,710	2.74
Private for-profit 4-year	678,920,090	6.45
Estimated total of Stafford Loan amount received by all FTB students, by control and level of institution[1]		
Public less-than-2-year	36,672,040	1.43
Public 2-year	1,355,320,280	1.37
Public 4-year, non-doctorate-granting	961,561,150	1.41
Public 4-year, doctorate-granting	2,690,253,310	3.33
Private nonprofit less-than-4-year	97,897,410	1.28
Private nonprofit 4-year, non-doctorate-granting	1,084,463,900	1.95
Private nonprofit 4-year, doctorate-granting	1,297,564,380	2.71
Private for-profit less-than-2-year	848,552,930	2.60
Private for-profit 2-year	862,038,030	6.45
Private for-profit 4-year	1,430,976,950	1.43
Estimated number of FTB federal loan recipients, by control and level of institution[1]		
Public less-than-2-year	6,350	1.37
Public 4-year, non-doctorate-granting	188,190	1.41
Public 4-year, doctorate-granting	519,400	3.33
Private nonprofit less-than-4-year	15,440	1.28
Private nonprofit 4-year, non-doctorate-granting	192,380	1.95
Private for-profit less-than-2-year	134,620	2.48
Private for-profit 2-year	135,610	2.71
Private for-profit 4-year	212,160	2.60
Estimated total of federal loan amount received by all FTB students, by control and level of institution[1]		
Public 4-year, non-doctorate-granting	969,088,260	4.33
Public 4-year, doctorate-granting	2,723,070,430	1.22
Private nonprofit less-than-4-year	97,931,010	1.25
Private nonprofit 4-year, non-doctorate-granting	1,112,325,400	1.35
Private for-profit 2-year	862,883,470	3.36
Private for-profit 4-year	1,432,932,720	1.18

[1] Estimated counts and totals are derived by summing NPSAS:12 weights for students identified as FTBs.
NOTE: FTB = first-time beginning. Sample sizes rounded to the nearest 10.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table 12 shows the variables used for the poststratification, the values of the control totals, and the average weight adjustment factors for each variable for PETS response crossed with BPS panel response weight, WTD000. Statistics for the poststratification weight adjustment factors follow:

- minimum: 0.01;
- median: 1.32; and
- maximum: 45.99.

The poststratification adjustment model was initialized with a lower bound of 0.001 and an upper bound between 2,000 and unbounded, depending on the sector, in order to achieve convergence. After poststratification was performed, staff computed the final PETS response crossed with BPS panel response weight (WTD000) as the product of the weight components described in this section.

WTD000 = B17WT1 × PETSWT1 × PETSWT2 × PETSDWT1 × PETSDWT2.

Table 12. WTD000 weight adjustment factors for student poststratification: 2012–17

Poststratification categories	Control total	Panel weights—average weight adjustment factor (PETSDWT2)
Full-year FTB undergraduate student enrollment (full and part time), by control and level of institution		
Public less-than-2-year	30,260	7.96
Public 2-year	1,615,350	1.62
Public 4-year, non-doctorate-granting	418,360	1.31
Public 4-year, doctorate-granting	863,860	1.35
Private nonprofit less-than-4-year	26,530	2.91
Private nonprofit 4-year, non-doctorate-granting	276,890	1.29
Private nonprofit 4-year, doctorate-granting	378,470	1.46
Private for-profit less-than-2-year	154,680	2.19
Private for-profit 2-year	166,110	2.26
Private for-profit 4-year	246,460	2.34
Fall FTB undergraduate student enrollment (full and part time), by control and level of institution		
Public less-than-2-year	23,140	9.14
Public 2-year	1,195,400	1.35
Public 4-year, non-doctorate-granting	350,750	1.16
Public 4-year, doctorate-granting	770,210	1.22
Private nonprofit less-than-4-year	16,530	2.61
Private nonprofit 4-year, non-doctorate-granting	240,990	1.07
Private for-profit less-than-2-year	109,940	2.45
Private for-profit 2-year	119,100	2.07
Private for-profit 4-year	138,060	2.14

See notes at end of table.

Table 12. WTD000 weight adjustment factors for student poststratification: 2012–17—Continued

Poststratification categories	Control total	Panel weights—average weight adjustment factor (PETSDWT2)
Fall FTB undergraduate student enrollment (full time), by control and level of institution		
Public less-than-2-year	15,840	6.65
Public 2-year	720,520	1.09
Public 4-year, non-doctorate-granting	298,300	1.05
Public 4-year, doctorate-granting	750,030	1.22
Private nonprofit less-than-4-year	16,380	2.70
Private nonprofit 4-year, non-doctorate-granting	231,610	0.97
Private for-profit less-than-2-year	89,940	2.27
Private for-profit 2-year	110,360	2.08
Private for-profit 4-year	99,990	1.82
Number of full-time FTB students receiving Pell Grants, by control and level of institution		
Public less-than-2-year	1,570	10.81
Public 2-year	416,960	1.01
Public 4-year, non-doctorate-granting	141,220	1.01
Public 4-year, doctorate-granting	265,900	1.13
Private nonprofit less-than-4-year	11,920	3.56
Private nonprofit 4-year, non-doctorate-granting	88,470	0.97
Private for-profit less-than-2-year	84,340	2.68
Private for-profit 2-year	103,880	2.47
Private for-profit 4-year	84,080	1.98
Amount of Pell Grants awarded to full-time FTB students, by control and level of institution		
Public less-than-2-year	5,931,970	10.81
Public 2-year	1,777,351,700	1.01
Public 4-year, non-doctorate-granting	609,453,460	1.01
Public 4-year, doctorate-granting	1,147,736,470	1.13
Private nonprofit less-than-4-year	53,556,410	3.56
Private nonprofit 4-year, non-doctorate-granting	367,821,390	0.97
Private for-profit less-than-2-year	394,622,620	2.68
Private for-profit 2-year	456,805,180	2.47
Private for-profit 4-year	385,370,040	1.98
Number of full-time FTB students receiving federal student loans, by control and level of institution		
Public less-than-2-year	540	6.69
Public 2-year	187,840	1.05
Public 4-year, non-doctorate-granting	145,240	0.95
Public 4-year, doctorate-granting	401,860	1.08
Private nonprofit less-than-4-year	14,100	3.17
Private nonprofit 4-year, non-doctorate-granting	151,500	0.86
Private for-profit less-than-2-year	79,700	2.25
Private for-profit 2-year	91,210	1.97
Private for-profit 4-year	91,440	1.92
Total amount of federal student loans awarded to all FTB students, by control and level of institution		
Public 2-year	868,627,670	1.05
Public 4-year, non-doctorate-granting	789,298,290	0.95
Public 4-year, doctorate-granting	2,245,091,010	1.08
Private nonprofit less-than-4-year	92,909,670	3.17
Private nonprofit 4-year, non-doctorate-granting	914,308,410	0.86
Private for-profit less-than-2-year	508,032,680	2.25
Private for-profit 2-year	593,422,370	1.97
Private for-profit 4-year	702,552,850	1.92

See notes at end of table.

Table 12. WTD000 weight adjustment factors for student poststratification: 2012–17—Continued

Poststratification categories	Control total	Panel weights—average weight adjustment factor (PETSDWT2)
Estimated number of FTB Pell Grant recipients, by control and level of institution[1]		
Public less-than-2-year	15,500	7.27
Public 2-year	769,040	1.31
Public 4-year, non-doctorate-granting	194,090	1.28
Private nonprofit less-than-4-year	18,880	3.23
Private nonprofit 4-year, doctorate-granting	121,890	1.55
Private for-profit less-than-2-year	145,140	2.59
Private for-profit 2-year	155,920	2.59
Private for-profit 4-year	185,360	2.31
Estimated total of Pell Grants received by all FTB students, by control and level of institution[1]		
Public less-than-2-year	59,116,720	7.27
Public 2-year	2,442,387,770	1.31
Public 4-year, non-doctorate-granting	740,875,520	1.28
Public 4-year, doctorate-granting	1,305,875,010	1.42
Private nonprofit less-than-4-year	74,391,310	3.23
Private nonprofit 4-year, non-doctorate-granting	461,631,070	1.68
Private nonprofit 4-year, doctorate-granting	508,791,190	1.55
Private for-profit less-than-2-year	634,854,550	2.59
Private for-profit 2-year	629,787,030	2.59
Private for-profit 4-year	650,878,890	2.31
Estimated total of Stafford Loan amount received by all FTB students, by control and level of institution[1]		
Public less-than-2-year	33,769,280	3.67
Public 2-year	1,293,072,180	1.19
Public 4-year, non-doctorate-granting	952,176,440	1.14
Public 4-year, doctorate-granting	2,673,739,420	1.37
Private nonprofit less-than-4-year	97,557,360	2.62
Private nonprofit 4-year, non-doctorate-granting	1,070,525,010	1.27
Private nonprofit 4-year, doctorate-granting	1,278,415,900	1.43
Private for-profit less-than-2-year	804,676,950	2.08
Private for-profit 2-year	807,514,320	1.88
Private for-profit 4-year	1,354,301,860	2.28
Estimated number of FTB federal loan recipients, by control and level of institution[1]		
Public less-than-2-year	5,970	3.67
Public 2-year	312,580	1.20
Public 4-year, non-doctorate-granting	186,410	1.13
Public 4-year, doctorate-granting	516,680	1.37
Private nonprofit less-than-4-year	15,350	2.62
Private nonprofit 4-year, non-doctorate-granting	190,390	1.27
Private nonprofit 4-year, doctorate-granting	229,080	1.42
Private for-profit less-than-2-year	128,350	2.08
Private for-profit 2-year	127,730	1.87
Private for-profit 4-year	200,350	2.28
Estimated total of federal loan amount received by all FTB students, by control and level of institution[1]		
Public 2-year	1,315,819,200	1.20
Public 4-year, non-doctorate-granting	959,703,560	1.13
Private nonprofit less-than-4-year	97,590,960	2.62
Private nonprofit 4-year, non-doctorate-granting	1,098,328,070	1.27
Private nonprofit 4-year, doctorate-granting	1,306,639,690	1.42
Private for-profit 2-year	808,364,580	1.87
Private for-profit 4-year	1,356,257,630	2.28

[1] Estimated counts and totals are derived by summing NPSAS:12 weights for students identified as FTBs.
NOTE: FTB = first-time beginning student. Sample sizes rounded to the nearest 10.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

4.1.5 Weighting QC

BPS:12 PETS response weight—WTC000. Table 13 summarizes the student weight distribution and the variance inflation caused by unequal weighting (i.e., UWEs by control and level of institution) for the BPS:12 PETS response analysis weight, WTC000. The median student weight ranges from 29.57 for students in private for-profit 4-year institutions to 238.86 for students in public 4-year, doctorate-granting institutions. The mean student weight ranges from 52.42 for students in private for-profit 4-year institutions to 267.28 for students in public 4-year, doctorate-granting institutions.

The UWE is 3.26 overall and ranges from 1.66 for students in public 4-year, doctorate-granting institutions to 5.85 for students in private for-profit 2-year institutions. The sample design and sample sizes accounted for UWEs of below 3.5 to ensure precision of estimates. This means that for students in private nonprofit 4-year, doctorate-granting institutions, private for-profit less-than-2-year institutions or private for-profit 2-year institutions, the inflation on the variance of estimates due to the unequal weighting could have a moderate impact on estimation.

Table 13. WTC000 weight distribution and unequal weighting effects: 2012–17

Analysis domain	Minimum	First quartile	Median	Third quartile	Maximum	Mean	Unequal weighting effect
Total	**1.00**	**28.74**	**103.81**	**207.11**	**8,960.22**	**161.22**	**3.26**
Control and level of Institution							
Public less-than-2-year	18.34	78.72	126.15	240.29	3,255.94	242.04	3.44
Public 2-year	1.00	33.90	109.34	210.86	3,176.02	178.63	2.86
Public 4-year, non-doctorate-granting	5.73	123.48	214.99	278.65	1,759.51	245.08	1.66
Public 4-year, doctorate-granting	1.00	158.49	238.86	306.14	8,960.22	267.28	2.09
Private nonprofit less-than-4-year	1.00	33.26	91.37	147.36	1,312.99	127.55	2.76
Private nonprofit 4-year, non-doctorate-granting	1.00	52.18	115.12	151.31	1,939.70	131.35	2.19
Private nonprofit 4-year, doctorate-granting	1.00	24.04	123.24	161.41	7,450.59	155.75	5.57
Private for-profit less-than-2-year	3.16	55.95	122.91	270.51	6,357.24	235.79	3.92
Private for-profit 2-year	1.00	16.13	40.49	113.03	5,019.89	97.88	5.85
Private for-profit 4-year	1.00	12.77	29.57	57.38	1,010.08	52.42	3.24

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

To assess the overall predictive ability of the cross-sectional student nonresponse models, staff used a Receiver Operating Characteristic (ROC) curve (Hanley and McNeil 1982). The ROC curve provides a measure of how well the model correctly classified individuals of known response type—in other words, how well the model predicts a student's response propensity.[3] BPS:12 PETS staff developed the

[3] For a more detailed example of the ROC curve used in nonresponse modeling, see Iannacchione (2003).

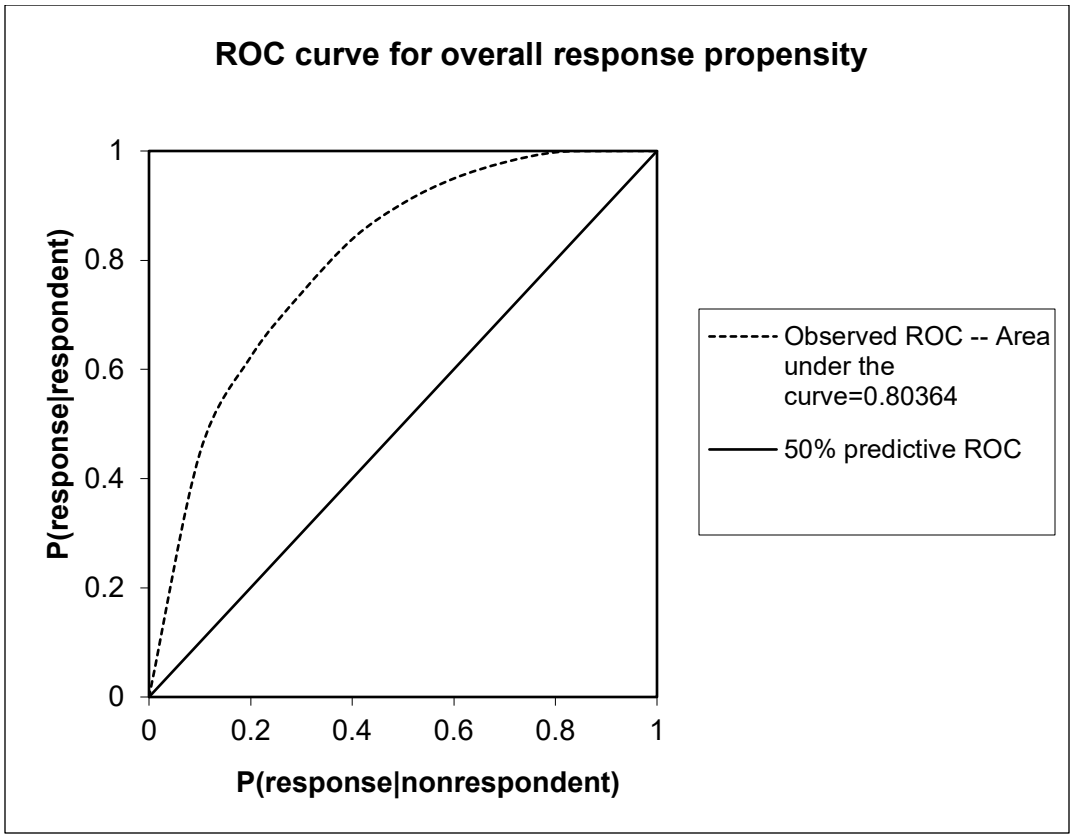
ROC curve in the following manner. For any specified probability of response, *c*, two proportions were calculated:

- the proportion of respondents with a predicted probability of response greater than *c*; and
- the proportion of nonrespondents with a predicted probability of response greater than *c*.

The plot of the first probability against the second, for *c* from zero to 1, resulted in the ROC curve for WTC000 shown in figure 4. The area under the curve equals the probability that the fitted model correctly classifies two randomly chosen individuals—one of whom is a true respondent, and one of whom is a true nonrespondent—where the individual with the higher predicted probability of response is classified as the respondent. An area of 0.5 under a ROC curve indicates that a correct classification is made 50 percent of the time, with the model providing no predictive benefit. An area of 1.0 indicates that the true respondent always has the higher predicted probability of response, as compared to the true nonrespondent, so the model always classifies the two individuals correctly.

Figure 4 shows that the area under the ROC curve is approximately 0.80, so the predicted probabilities give the correct classification 80 percent of the time. Analysts can also interpret predictive probabilities from ROC curves in terms of the nonparametric Wilcoxon test statistic, which is used to determine if the level of a quantitative variable, such as predicted probability of response, is different between two samples (respondents and nonrespondents in this case). The ROC area equals the value of the Wilcoxon test statistic. Viewed in this way, the Wilcoxon test rejects the null hypothesis of no predictive ability by showing that the predicted probability of response for the respondents is larger than that for the nonrespondents. Analysts can interpret this result to mean that the variables used in the model are highly informative predictors of a student's overall response propensity.

Figure 4. Receiver Operating Characteristic (ROC) curve for overall institution response propensity: WTC000



SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

BPS:12 PETS response crossed with BPS panel response weight—WTD000. Table 14 summarizes the student weight distribution and the variance inflation caused by unequal weighting for the PETS response crossed with BPS panel response weight, WTD. The median student weight ranges from 50.68 for students in private for-profit 4-year institutions to 315.80 for students in public 4-year, doctorate-granting institutions. The mean student weight ranges from 97.76 for students in private for-profit 4-year institutions to 513.89 for students in private for-profit less-than-2-year institutions.

The UWE is 3.50 overall and ranges from 2.14 for students in private nonprofit 4-year, doctorate-granting institutions to 5.20 for students in private for-profit 2-year institutions. For students in private nonprofit less-than-4-year, private for-profit 2-year, and private for-profit 4-year institutions, the inflation on the variance of estimates due to the unequal weighting is moderate, and there is some concern about the effects it could have on estimation in those domains.

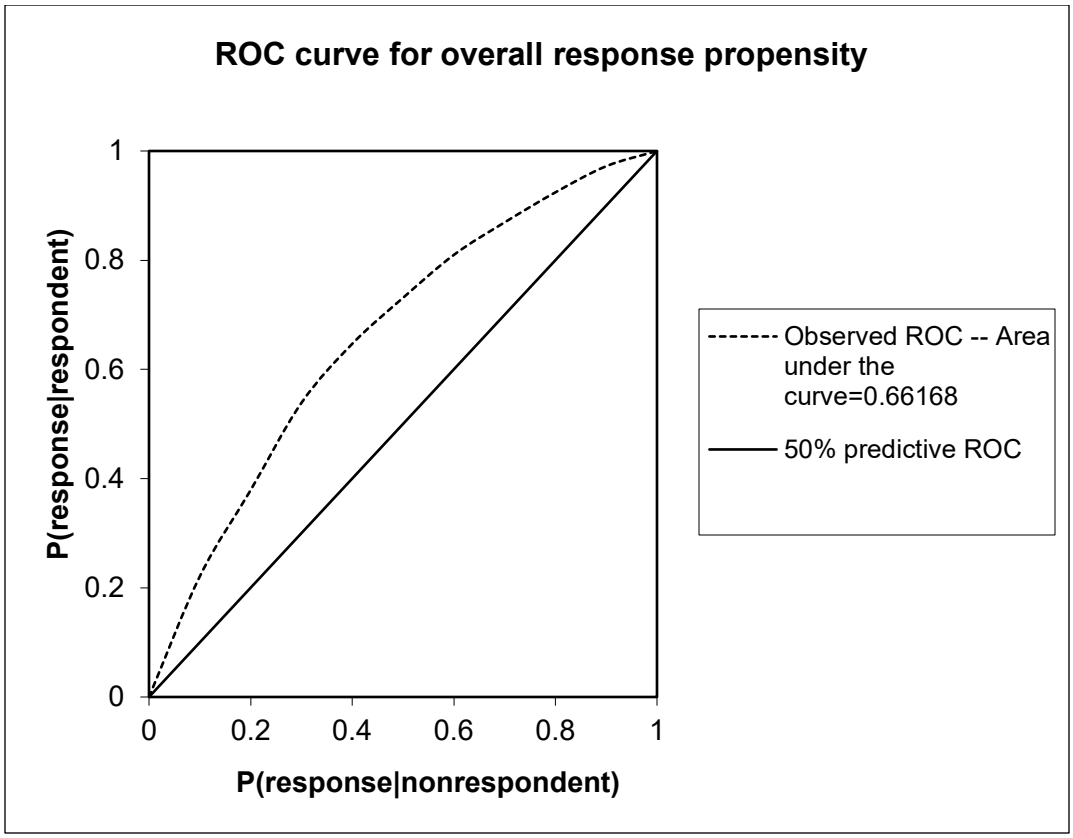
Table 14. WTD000 weight distribution and unequal weighting effects: 2012–17

Analysis domain	Minimum	First quartile	Median	Third quartile	Maximum	Mean	Unequal weighting effect
Total	**0.52**	**54.95**	**172.19**	**324.63**	**11271.51**	**272.18**	**3.50**
Control and level of Institution							
Public less-than-2-year	46.46	119.83	271.09	486.02	2897.03	444.93	2.49
Public 2-year	1.29	63.24	174.56	368.87	6770.17	326.20	3.28
Public 4-year, non-doctorate-granting	7.43	180.30	286.07	413.84	6030.28	390.62	2.38
Public 4-year, doctorate-granting	1.75	225.00	315.80	409.47	11271.51	380.05	2.89
Private nonprofit less-than-4-year	0.52	54.93	116.16	258.73	3268.09	222.95	4.04
Private nonprofit 4-year, non-doctorate-granting	1.38	95.41	156.51	221.39	5566.69	196.23	3.33
Private nonprofit 4-year, doctorate-granting	0.58	38.78	203.08	297.62	2180.26	211.55	2.14
Private for-profit less-than-2-year	8.32	109.63	224.22	681.20	7879.57	513.89	3.11
Private for-profit 2-year	0.71	31.84	73.05	229.93	6749.08	197.51	5.20
Private for-profit 4-year	0.84	19.84	50.68	113.44	1928.28	97.76	3.58

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

To assess the overall predictive ability of the nonresponse models for the PETS response crossed with BPS panel response weight, a ROC curve was developed as described in the cross-sectional weight section. Again, the predicted probabilities of response (c) for the ROC curve associated with WTD000 are the product of the predicted response probabilities obtained at each of the three nonresponse adjustment steps. Figure 5 shows that the area under the ROC curve is approximately 0.66, so the predicted probabilities give the correct classification 66 percent of the time. Predictive probabilities from ROC curves can also be interpreted in terms of the nonparametric Wilcoxon test statistic, where the ROC area is equivalent to the value of the Wilcoxon test statistic. Viewed in this way, the Wilcoxon test rejects the null hypothesis of no predictive ability by showing that the predicted probability of response for the respondents is larger than that for the nonrespondents. Analysts can interpret this to mean that the variables used in the model are definitive predictors of a sample student's overall response propensity.

Figure 5. Receiver Operating Characteristic (ROC) curve for overall student response propensity: WTD000



SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

4.2 Variance Estimation

Every estimate calculated from a probability-based sample survey, such as a mean, a percentage, or a regression coefficient, has an associated variance. Hypothesis testing, calculation of confidence intervals, and modeling that use complex survey data all require the calculation of variances using appropriate methods that account for the sampling design. Complex sample designs, like those used for NPSAS:12 and BPS:12 PETS, result in data that violate the assumptions that are normally required to assess the statistical significance of results. The variances of the estimates from complex surveys may vary from those that would be expected if the sample were a simple random sample and the observations were independent and identically distributed random variables. Two procedures for estimating variances of statistics from complex surveys are the Taylor-series linearization procedure and the bootstrap replication procedure, which are both available for the BPS:12 PETS data files. The analysis strata and PSUs created for the Taylor-series procedure are discussed in section 4.2.1 and section 4.2.2 contains a discussion of the replicate weights created for the bootstrap procedure.

4.2.1 Taylor Series

The Taylor-series linearization variance estimation procedure is a well-known technique used to estimate the variances of nonlinear statistics. The procedure takes the first-order Taylor-series approximation of the nonlinear statistic and substitutes the linear representation into the appropriate variance formula based on the sample design (Woodruff 1971).

For stratified multistage surveys, the Taylor-series procedure requires variance estimation strata and variance estimation PSUs, also called replicates, defined from the sampling strata and PSUs used in the first stage of sampling. Because BPS:12 PETS is a follow-up study of NPSAS:12, the variance estimation strata and PSUs for BPS:12 PETS were derived from those developed for NPSAS:12. The steps used in the construction of the NPSAS:12 strata and PSU variables are described in chapter 6 of the NPSAS:12 data file documentation (Wine, Bryan, and Siegel 2014). The variance estimation formulas require at least two PSUs in each stratum. The NPSAS:12 variance estimation strata and PSUs were examined for the BPS:12 PETS sample, and strata with only one PSU were combined with other strata so that each analysis stratum had at least two PSUs. The following three rules were used: variance estimation strata were combined with other variance estimation strata within the original NPSAS:12 sampling strata, schools that were selected with certainty were combined with other certainty schools, and noncertainty schools were combined with other noncertainty schools. In addition, the original sort order that was used for constructing the NPSAS:12 variance estimation strata and PSUs was used. A variance estimation stratum was combined with the next stratum in the sorted list. If the stratum was the first in the sorted list, then it was combined with the next stratum in the list. In this fashion, single PSUs were combined with other PSUs to form new variance estimation strata.

The NPSAS:12 restricted-use data file provided two sets of variables per weight for Taylor-series linearization variance estimation, and BPS:12 PETS also provides two sets of variables for each weight. One set of variables is used in software that assumes that the first-stage sampling units (institutions) were sampled with replacement (or with small selection probabilities) and does not account for the finite population correction (FPC) at the institution level of sampling. The other set of variables is used in software that assumes sampling of institutions without replacement in the calculation of variances and does account for the FPC. Both sets of variables are provided because not all survey data analysis packages have the option to incorporate the FPC in the variance calculations. When the first-stage units are sampled with very small probabilities, the estimated variances using the with-replacement variance formulas and the without-replacement variance formulas are the same.

The set of variables used when assuming the first-stage units were sampled with replacement includes the analysis stratum (ANALSTR) and analysis PSU (ANALPSU). The set of variables used when assuming the first-stage units were sampled without replacement account for the FPC and include the analysis stratum (FANALSTR), analysis PSU (FANALPSU), analysis secondary sampling unit (SSU) (FANALSSU), and the count of PSUs in an analysis stratum (PSUCOUNT). Ultimately, FANALSTR equals the institutional variance estimation stratum ANALSTR, and FANALPSU equals ANALPSU. FANALSSU was created by randomly dividing the NPSAS:12 analysis PSUs into two parts. These variables are a by-product of the bootstrap variance estimation weights (described in section 4.2.2), and the justification for using the without-replacement variance formulas follows from the assumptions described in Kott (1988). Some values of the variance estimation strata, PSU, and SSU variables were combined in order to have at least two SSUs in each PSU, and at least two PSUs in each stratum. The same stratum and PSU terms, under with-replacement and without-replacement assumptions, are used for analysis with both the cross-sectional and panel weights.

4.2.2 Bootstrap Replicate Weights

The replication variance estimation strategy that was chosen for BPS:12 PETS is the same as that used for NPSAS:12, BPS:12/14, and BPS:12/17 and accounts for the following in order to produce accurate variance estimates:

1. stratification at all stages of sampling;
2. unequal weighting;
3. sample clustering;
4. weight adjustments for nonresponse and for poststratification of selected total estimates to known external totals;
5. linear and nonlinear statistics and percentages;
6. FPCs at the institution stage of sampling and high sampling rates in some first-stage sampling strata; and
7. the ability to test hypotheses about students based on normal distribution theory by ignoring the FPCs at the student level of sampling.

Commonly applied bootstrap variance estimation techniques account for 1 through 5 listed above; however, to account for 6 and 7 above, NPSAS:12 staff applied a method adapted from Kott (1988) and Flyer (1987). The following notation is used in the steps delineated below:

n_h = the number of institutions selected and responding from stratum *h;*

$\hat{N}_h$ = the frame count of institutions in stratum *h*;

m_{hi} = the number of SSUs or students selected from institution *i* in stratum *h;*

n_h^* = the bootstrap sample size of PSUs in stratum *h* when bootstrap sampling is at the PSU level in stratum *h;*

n_{hi}^* = the number of times PSU *hi* is selected in the bootstrap sample when bootstrap sampling is at the PSU level;

m_{hi}^* = the bootstrap sample size of SSUs in PSU *hi* when bootstrap sampling is at the SSU level in stratum *h;*

m_{hij}^* = the number of times SSU *j* is selected within stratum *h* in institution *i* in the bootstrap sample when bootstrap sampling is at the SSU level; and

w_{hijk}^* = the additional weight adjustment factor for student *hijk* due to bootstrap sampling.

The process of forming replicates and computing replicate weights is as follows:

1. Approximate the stratum-level first-stage FPC for the selected stratum sample, using Kott's model-based approximation (1988).

$$\text{FPC}_h = \frac{\hat{N}_h - n_h}{\hat{N}_h}.$$

2. Generate a uniform (0, 1) random number R_h for each stratum *h*.

3. If $R_h \le \text{FPC}_h$, form a replicate sample in stratum *h* by randomly selecting $n_h^* = n_h - 1$ institutions with equal probability and with replacement after each selection. When n_h^* is greater than 1, a PSU may be selected more than once; in essence, n_{hi}^* may take on values of 0, 1, . . . , n_h^*. Adjust the weights by the factor

$$w_{hijk}^* = n_{hi}^* \frac{n_h}{n_h^*}.$$

4. Otherwise, form a replicate sample in stratum *h* by randomly selecting $m_{hi}^* = m_{hi} - 1$ second-stage units within each institution in stratum *h*. In this case, m_{hij}^* may take on values of 0, 1, . . . , m_{hi}^*. Adjust the weights by the factor

$$w_{hijk}^* = m_{hij}^* \frac{m_{hi}}{m_{hi}^*}.$$

5. Repeat steps three and four in all strata to form one replicate sample.

6. Repeat steps one through five 200 times to form 200 replicate samples.

This method used random switching between PSU bootstrap sampling and SSU bootstrap sampling to represent the proper mix (in expectation) of the first- and second-stage variance components when an FPC is applied at the first stage of sampling. It extended the general method described by Flyer (1987) for half-sample replication to a more general bootstrap.

This method incorporated the FPC factor only at the first stage, where sampling fractions were generally high. At the second stage, where the sampling fractions were generally low, the FPC factor was set to 1.00.

Staff used the Flyer-Kott methodology to develop a vector of bootstrap sample weights that they added to the analysis file. These weights are zero for units not selected in a particular bootstrap sample; weights for other units are inflated for the bootstrap subsampling.

The final student weights (WTC000 and WTD000) described in section 4.1 were used for computing estimates, such as means, percentages, and regression coefficients, and the vector of replicate weights allowed for computation of additional estimates for the sole purpose of estimating variances. Assuming *B* sets of replicate weights, analysts can estimate the variance of any estimate, $\hat{\theta}$, by replicating the estimation procedure for each replicate and computing a simple variance of the replicate estimates, as follows:

$$\mathrm{var}(\hat{\theta}) = \frac{\sum_{b=1}^{B} (\hat{\theta}_b^* - \hat{\theta})^2}{B},$$

where $\hat{\theta}_b^*$ is the estimate based on the *b*th replicate weight (where $b = 1$ to the number of replicates) and *B* is the total number of sets of replicate weights. The standard error for $\hat{\theta}$ can be calculated as the square root of the estimate of variance, $\mathrm{var}(\hat{\theta})$.

The number of replicate weights was set to 200 to ensure stable variance estimates for a variety of estimates. The unknown eligibility, nonresponse, and poststratification adjustments described in section 4.1 were applied to each replicate to create the two sets of 200 replicate weights included on the analysis file (WTC001–WTC200 and WTD001-WTC200) so that the variances would be estimated to account for these weight adjustments. For some of the replicates, the bounds on the nonresponse and poststratification adjustment factors had to be loosened or model variables had to be

collapsed because of model convergence problems (i.e., there was no solution to satisfy all model equations simultaneously). However, the model adjustments were not necessary for many replicates, and when it was necessary, the adjustments were minimal. Therefore, this approach worked well for BPS:12 PETS to achieve model convergence for all replicates and to minimize the effect of different models on the variance estimates.

4.3 Weighted and Unweighted Response Rates

The overall BPS:12 PETS response rate is an estimate of the proportion of the study population directly represented by the respondents. Because BPS:12 PETS includes a subsample of NPSAS:12 nonrespondents, the overall BPS:12 PETS response rate is the product of the NPSAS:12 institution-level response rate times the BPS:12 PETS student-level transcript response rate. Therefore, the overall BPS:12 PETS response rates can only be estimated directly for defined institutional characteristics.

Table 15 gives the unweighted and weighted NPSAS:12 base-year institution and BPS:12 PETS response rate components by control and level of institution.

Table 15. Institution, BPS:12 PETS, and overall response rates, by control and level of institution: 2012–17

Control and level of institution[1]	Institution response rate		BPS:12 PETS sample		BPS:12 PETS response rate		Overall response rate	
	Unweighted	Weighted	Eligible students[2]	Respondents[3]	Unweighted	Weighted[4]	Unweighted	Weighted[4]
All institutions	**87.8**	**87.0**	**35,010**	**25,910**	**74.0**	**84.5**	**65.0**	**73.5**
Public								
Less-than-2-year	77.3	78.8	220	160	70.5	60.1	54.5	47.3
2-year	85.3	84.1	10,760	9,160	85.2	83.4	72.7	70.1
4-year, non-doctorate-granting	93.8	92.3	1,870	1,700	90.9	89.1	85.3	82.3
4-year, doctorate-granting	91.7	90.5	3,440	3,090	89.8	90.9	82.4	82.3
Private nonprofit								
Less-than-4-year	75.0	77.7	350	220	62.3	45.7	46.7	35.5
4-year, non-doctorate-granting	88.8	87.6	2,360	2,180	92.1	90.2	81.7	79.0
4-year, doctorate-granting	89.1	86.4	2,670	2,330	87.3	88.4	77.8	76.4
Private for-profit								
Less-than-2-year	81.5	80.3	1,450	660	45.8	59.2	37.3	47.6
2-year	80.0	77.5	3,200	1,730	54.0	55.4	43.2	42.9
4-year	89.5	89.5	8,700	4,690	53.9	70.7	48.3	63.2

[1] Control and level of institution are based on data from the 2011–12 National Postsecondary Student Aid Study sampling frame.
[2] Sample member eligibility was determined during the student interview or from institutional records in the absence of a student interview.
[3] A PETS respondent is defined as an eligible sample member for whom a transcript was received from at least one of their institutions.
[4] The base weight after eligibility adjustment was used to produce the estimates in this column.
NOTE: Sample sizes rounded to the nearest 10. Percentages are based on the unrounded count of eligible students. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

The institution-level response rates shown in table 15 are the percentage of institutions that provided sufficient data to select the NPSAS:12 student-level sample; these rates are presented and discussed in the NPSAS:12 data file documentation (Wine, Bryan, and Siegel 2014, table 3, p. 11). Only the weighted response rates can be interpreted as estimates of the proportion of the BPS:12 PETS population that is directly represented by the respondents. Using the PETS response weight, WTC000, table 15 shows that, across all sectors, 85 percent of the eligible BPS:12 PETS sample were survey respondents. The unweighted rate varied from 46 percent to 92 percent by control and level of institution. Table 16 displays the weighted and unweighted response rates for both the PETS response weight, WTC000, and the PETS response crossed with BPS panel response weight, WTD000.

Table 16. Counts of sampled and eligible students and response rates, by control and level of institution: 2012–17

Control and level of institution[1]	Sampled students	Eligible students[2]	BPS: 12 PETS respondents—WTC000[3]			BPS:12 PETS respondents crossed with BPS panel respondents—WTD000[3]		
			WTC000 respondents	Unweighted response rate	Weighted response rate[4]	WTD000 respondents	Unweighted response rate	Weighted response rate[4]
All institutions	**35,540**	**35,010**	**25,910**	**74.0**	**84.5**	**15,350**	**43.8**	**48.3**
Public								
Less-than-2-year	230	220	160	70.5	60.1	80	36.8	24.4
2-year	10,930	10,760	9,160	85.2	83.4	5,030	46.7	41.7
4-year, non-doctorate-granting	1,890	1,870	1,700	90.9	89.1	1,090	58.1	50.6
4-year, doctorate-granting	3,450	3,440	3,090	89.8	90.9	2,170	63.1	59.4
Private nonprofit								
Less-than-4-year	350	350	220	62.3	45.7	130	36.6	24.6
4-year, non-doctorate-granting	2,380	2,360	2,180	92.1	90.2	1,470	62.1	58.1
4-year, doctorate-granting	2,680	2,670	2,330	87.3	88.4	1,710	64.1	62.1
Private for-profit								
Less-than-2-year	1,500	1,450	660	45.8	59.2	300	21.0	22.1
2-year	3,280	3,200	1,730	54.0	55.4	860	26.7	22.5
4-year	8,860	8,700	4,690	53.9	70.7	2,520	28.9	31.6

[1] Control and level of institution are based on data from the 2011–12 National Postsecondary Student Aid Study sampling frame.
[2] Sample member eligibility was determined during the student interview or from institutional records in the absence of a student interview.
[3] A BPS:12 PETS respondent is defined as an eligible sample member for whom a transcript was received from at least one of their institutions.
[4] The base weight after eligibility adjustment was used to produce the estimates in this column.
NOTE: Sample sizes rounded to the nearest 10. Percentages are based on the unrounded count of eligible students. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

4.4 Accuracy and Precision of Estimates

The accuracy and precision of survey statistics are affected by both random and nonrandom errors. Random errors reduce the precision of survey estimates, and nonrandom errors may result in bias (i.e., estimates that do not converge to the true population parameter as the sample size increases without limit) or loss of precision.

The sources of error in a survey are often dichotomized as sampling and nonsampling errors. Sampling error refers to the error that occurs because the survey is based on a sample of population members rather than the entire population. All other types of errors are nonsampling errors, including survey nonresponse (because of inability to contact sample members, their refusal to participate in the study, etc.) and measurement errors, such as the errors that occur because the intent of survey questions was not clear to the respondent, because the respondent had insufficient knowledge to answer correctly, or because the data were not captured correctly

(e.g., because of recording, editing, or data-entry errors). Item response rates are displayed in Appendix F.

Sampling errors are primarily random errors for well-designed studies such as BPS:12 PETS. Section 4.4.1 discusses measurement of sampling error by variance estimation and the use of software packages for proper variance estimation. The survey design effect for a statistic is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that sample had been selected). It is often used to measure the effects that sample design features have on the precision of survey estimates. For example, stratification tends to decrease the variance, but multistage sampling and unequal sampling rates usually increase the variance. In addition, weight adjustments for nonresponse (performed to reduce nonresponse bias) and poststratification may increase the variance for some groups by increasing the weight variation. Design effects are discussed in section 4.4.2, and detailed results are provided in appendix G.

Nonrandom errors can occur if the sampling frame does not provide complete coverage of the target population. In section 4.4, nonsampling error is investigated by comparing BPS:12 PETS nonrespondents and respondents using characteristics known for both groups. PETS staff conducted nonresponse bias analysis, discussed in sections 4.4.3 and 4.4.4 at the student level and item level, respectively, for the overall sample and for each control and level of institution. The unit-level results are summarized in section 4.4.3 and detailed tables are provided in appendix H. In addition, item bias results are summarized in appendix H, table H-45.

4.4.1 Standard Errors

Table 17 and table 18 summarize the weight and variance estimation variables and how they are used in selected software packages that allow for Taylor-series linearization variance estimation with replacement (SUDAAN, Stata, the SAS survey data analysis procedures, IBM SPSS Complex Samples, and the R survey package), Taylor-series linearization variance estimation without replacement (SUDAAN, Stata, and the R survey package), and bootstrap variance estimation (SUDAAN, Stata, the SAS survey data analysis procedures, WesVar, and the R survey package). The code shown in the table is intended for use within respective program statements or procedures and cannot be used alone as shown in the table. The code may need to be revised to be appropriate for a user's specific data file and coding decisions, and for that reason, the provided code may not work for all users and may require editing before it is implemented. Table 17 details the code for analyses using the PETS response weight, and table 18 shows the code for analyses using the PETS response crossed with BPS panel response weight.

Table 17. Use of PETS response analysis weights, replicate weights, and variance estimation strata and primary sampling unit (PSU) variables available from BPS:12 PETS in selected survey data analysis software: 2012–17

Analysis weight for estimates	WTC000
Taylor-series linearization variance estimation (with replacement)	
Variance estimation strata and PSU variables	ANALSTRC and ANALPSUC
Software: statements, parameters, and keywords for Taylor-series variance estimation (with replacement)	
SUDAAN	DESIGN = WR; WEIGHT WTC000; NEST ANALSTRC ANALPSUC;
Stata	svyset analpsuc [pweight = wtc000], strata (analstrc) vce(linearized)
SAS survey analysis procedures	VARMETHOD = TAYLOR WEIGHT WTC000; STRATA ANALSTRC; CLUSTER ANALPSUC;
IBM SPSS Complex Samples[1]	CSPLAN ANALYSIS /PLAN FILE='myfile.csaplan' /PLANVARS ANALYSISWEIGHT=WTC000 /DESIGN STRATA=ANALSTRC CLUSTER=ANALPSUC /ESTIMATOR TYPE=WR
R survey package[2]	mydesign <- svydesign(id=~ANALPSUC, strata=~ANALSTRC, weights=~WTC000, data=mydata)
Taylor-series linearization variance estimation (without replacement)	
Variance estimation strata, PSU, SSU, and count variables	FANALSTRC, FANALPSUC, FANALSSUC, and PSUCOUNTC
Software: statements, parameters, and keywords for Taylor-series variance estimation (without replacement)	
SUDAAN	DESIGN = WOR; WEIGHT WTC000; NEST FANALSTRC FANALPSUC FANALSSUC; TOTCNT PSUCOUNTC _minus1_ _zero_;
Stata	svyset fanalpsuc [pweight=wtc000], strata(fanalstrc) fpc(psucountc) || fanalssu, vce(linearized)
R survey package[2]	mydesign <- svydesign(id=~FANALPSUC, strata=~FANALSTRC, weights=~WTC000, fpc=~PSUCOUNTC, data=mydata)
Bootstrap variance estimation	
Replicate weight variables	WTC001 - WTC200
Software: statements, parameters, and keywords for bootstrap variance	
SUDAAN	DESIGN = BRR; WEIGHT WTC000; REPWGT WTC001 -WTC200;
Stata	svyset [pweight=wtc000], brrweight(wtc001 - wtc200) vce(brr) mse
SAS survey data analysis procedures	VARMETHOD = BRR; WEIGHT WTC000; REPWEIGHTS WTC001-WTC200;
WesVar	Method: BRR Full sample weight: WTC000 Replicates: WTC001-WTC200
R survey package[2]	mydesign <- svrepdesign(type="BRR", weights=~WTC000, repweights="WTC00[1-200]", combined.weights=FALSE, data=mydata)

[1] The name "myfile" should be replaced with the desired file name.
[2] For the R survey package (Lumley 2014), "mydesign" can be renamed to any name for an R object to hold the specification of the survey design, and "mydata" is the name of the current dataset. For the without-replacement design, the R survey package does not account for the second stage of sampling.
NOTE: BPS = Beginning Postsecondary Students Longitudinal Study; SSU = secondary sampling unit. The survey data analysis software specifications are given for the following versions of the software packages: SUDAAN 11.0.1, Stata 12 and newer, SAS 9.3 and newer, IBM SPSS Complex Samples 20, and WesVar 4.3 and newer.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table 18. Use of PETS response crossed with BPS panel response analysis weights, replicate weights, and variance estimation strata and primary sampling unit (PSU) variables available from BPS:12 PETS in selected survey data analysis software: 2012–17

Analysis weight for estimates	WTD000
Taylor-series variance estimation (with replacement)	
Variance estimation strata and PSU variables	ANALSTRD and ANALPSUD
Software: statements, parameters, and keywords for Taylor-series variance estimation (with replacement)	
SUDAAN	DESIGN = WR; WEIGHT WTD000; NEST ANALSTRD ANALPSUD;
Stata	svyset ANALPSUD [pweight = WTD000], strata (ANALSTRD) vce(linearized)
SAS survey analysis procedures	VARMETHOD = TAYLOR; WEIGHT WTD000; STRATA ANALSTRD; CLUSTER ANALPSUD;
IBM SPSS Complex Samples[1]	CSPLAN ANALYSIS /PLAN FILE='myfile.csaplan' /PLANVARS ANALYSISWEIGHT=WTD000 /DESIGN STRATA=ANALSTRD CLUSTER=ANALPSUD /ESTIMATOR TYPE=WR
R survey package[2]	mydesign <- svydesign(id=~ANALPSUD, strata=~ANALSTRD, weights=~WTD000, data=mydata)
Taylor-series variance estimation (without replacement)	
Variance estimation strata, PSU, SSU, and count variables	FANALSTRD, FANALPSUD, FANALSSUD, and PSUCOUNTD
Software: statements, parameters, and keywords for Taylor-series variance estimation (without replacement)	
SUDAAN	DESIGN = WOR; WEIGHT WTD000; NEST FANALSTRD FANALPSUD FANALSSUD; TOTCNT PSUCOUNTD _minus1_ _zero_;
Stata	svyset FANALPSUD [pweight=WTD000], strata(FANALSTRD) fpc(PSUCOUNTD) || FANALSSUD, vce(linearized)
R survey package[2]	mydesign <- svydesign(id=~FANALPSUD, strata=~FANALSTRD, weights=~WTD000, fpc=~PSUCOUNTD, data=mydata)
Bootstrap variance estimation	
Replicate weight variables	WTD001 - WTD200
Software: statements, parameters, and keywords for bootstrap variance	
SUDAAN	DESIGN = BRR; WEIGHT WTD000; REPWGT WTD001 -WTD200;
Stata	svyset [pweight=WTD000], brrweight(WTD001 - WTD200) vce(brr) mse
SAS survey data analysis procedures	VARMETHOD = BRR; WEIGHT WTD000; REPWEIGHTS WTD001-WTD200;
WesVar	Method: BRR Full sample weight: WTD000 Replicates: WTD001-WTD200
R survey package[2]	mydesign <- svrepdesign(type="BRR", weights=~WTD000, repweights="WTD00[1-200]", combined.weights=FALSE, data=mydata)

[1] The name "myfile" should be replaced with the desired file name.
[2] For the R survey package (Lumley 2014), "mydesign" can be renamed to any name for an R object to hold the specification of the survey design, and "mydata" is the name of the current dataset. For the without-replacement design, the R survey package does not account for the second stage of sampling.
NOTE: BPS = Beginning Postsecondary Students Longitudinal Study; SSU = secondary sampling unit. The survey data analysis software specifications are given for the following versions of the software packages: SUDAAN 11.0.1, Stata 12 and newer, SAS 9.3 and newer, IBM SPSS Complex Samples 20, and WesVar 4.3 and newer.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

4.4.2 Design Effects

The survey design effect (DEFF) for a given estimate, $\hat{\theta}$, is defined as

$$\text{DEFF}(\hat{\theta}) = \frac{Var_{design}(\hat{\theta})}{Var_{srs}(\hat{\theta})}.$$

The square root of the design effect (DEFT) is another measure, which analysts can express as the ratio of the standard errors or

$$\text{DEFT}(\hat{\theta}) = \frac{SE_{design}(\hat{\theta})}{SE_{srs}(\hat{\theta})}.$$

Most complex, multistage sampling designs like NPSAS:12 and BPS:12 PETS result in design effects greater than 1.0. That is, the design-based variance is larger than the simple random sample variance. Appendix G provides design effect estimates for important domains and estimates to summarize the effects of stratification, multistage sampling, unequal probabilities of selection, and the weight adjustments. These design effects were estimated using SUDAAN and the bootstrap variance estimation procedure described above.

Large design effects imply large standard errors and relatively poor precision. Small design effects imply small standard errors and good precision. In general terms, a design effect less than 2.0 is low, from 2.0 to 3.0 is moderate, and greater than 3.0 is high. Moderate and high design effects often occur in complex surveys such as NPSAS and BPS. Unequal weighting causes large design effects and is often due to nonresponse and poststratification adjustments; however, in NPSAS and BPS, the unequal weighting is also due to the sample design and different sampling rates among institutional strata, as well as to the different sampling rates among student strata.

As discussed above, Taylor-series linearization and replication techniques can be used to compute appropriate standard errors for estimates from complex surveys. If statistical analyses are conducted using software packages that assume the data were collected using simple random sampling (i.e., adjustments are not made using the Taylor-series linearization or bootstrap replication methods), the standard errors will be calculated under this assumption and will be incorrect. They can be adjusted using the average DEFT, although this method is less precise than Taylor-series linearization or replication techniques. Analysts who must perform an analysis of BPS:12 PETS data without using one of the software packages for analysis of complex survey data can use the design effect tables in appendix G to make

approximate adjustments to the standard errors of survey statistics computed with the standard software packages that assume simple random sampling designs.

As the first step in the approximation of a standard error, the analyst should normalize the overall sample weights for packages that use the weighted population size (*N*) in the calculation of standard errors (SPSS but not SAS). The normalized weight will sum to the sample size (*n*) and is calculated as

$$\text{Normalized weight} = \text{weight} \times n / N ,$$

where *n* is the sample size (i.e., the number of cases with a valid main sampling weight) and *N* is the sum of the weights.

As the second step in the approximation, the standard errors produced by the statistical software, the test statistics, or the sample weight used in analysis can be adjusted to reflect the actual complex design of the study. To adjust the standard error of an estimate, the analyst should multiply the standard error produced by the statistical software by the square root of the DEFF, or the DEFT. The DEFF and DEFT used to make adjustments can be calculated for specific estimates, can be the median DEFF and DEFT across a number of variables, or can be the median DEFF and DEFT for a specific subgroup in the population. Adjusted standard errors can then be used in hypothesis testing, for example, when calculating *t* and *F* statistics.

A second option is to adjust the *t* and *F* statistics produced by statistical software packages using unadjusted (i.e., SRS) standard errors. To do this, the analyst should first conduct the desired analysis weighted by the normalized weight and then divide a *t* statistic by the DEFT or divide an *F* statistic by the DEFF. A third alternative is to create a new analytic weight variable in the data file by dividing the normalized analytic weight by the DEFF and using the adjusted weight in the analyses.

4.4.3 Unit Nonresponse Bias Analysis and Relative Bias

NCES Statistical Standard 4-4-1 states that "Any survey stage of data collection with a unit or item response rate less than 85 percent must be evaluated for the potential magnitude of nonresponse bias before the data or any analysis using the data may be released. Estimates of survey characteristics for nonrespondents and respondents are required to assess the potential nonresponse bias" (Seastrom 2014).

The bias in an estimated mean based on respondents $\bar{y}_R$ is the difference between the expected value of this mean and the target parameter, π, the population mean. Analysts can estimate the population mean for characteristics that are observed for both respondents and nonrespondents. The population mean is estimated using the full-sample mean, which can be expressed in terms of the respondent mean and

nonrespondent mean, $\bar{y}_{NR}$, as follows: $\hat{\pi} = (1-\eta)\,\bar{y}_R + \eta\bar{y}_{NR}$, where η is the weighted unit (or item) nonresponse rate. For variables that are from the frame rather than from the sample, analysts can estimate π without sampling error. They can then estimate bias as the difference between the respondent mean and the full-sample mean: $\hat{B}(\bar{y}_R) = \bar{y}_R - \hat{\pi}$. Equivalently, bias can be estimated as the difference between the mean for respondents and the mean for nonrespondents, multiplied by the weighted nonresponse rate: $\hat{B}(\bar{y}_R) = \eta(\bar{y}_R - \bar{y}_{NR})$.

Relative bias provides a measure of the magnitude of the bias relative to the estimated population mean and is estimated as: $RB(y_R) = B(y_R)/\hat{\pi}$. Relative bias is useful when assessing how nonresponse bias differentially affects a set of estimates. Effect size, as defined by Cohen (1988), is another measure of potential nonresponse bias. For continuous variables, it is computed as the estimated bias divided by the estimated standard deviation: $\hat{B}(\bar{y}_R)/\hat{\sigma}_y$. For categorical variables, it is computed as $\sqrt{\Sigma_i (p_{0i} - p_{1i})^2 / p_{0i}}$, where p_{0i} is the proportion of the full sample in category i, and p_{1i} is the proportion of respondents in category i. Effect sizes can be used in combination with bias and relative bias estimates and significance tests to evaluate the potential for nonresponse bias. Cohen classified an effect size as "small" when it is about 0.10, as "medium" when it is about 0.30, and as "large" when it is about 0.50.

Student-level unit nonresponse bias analysis was conducted using two different definitions of respondents, corresponding to the two analytic weights created for BPS:12 PETS, as described in section 4.1. Response rates for the PETS response weight (WTC000) and the PETS response crossed with BPS panel response weight (WTD000) are summarized in section 4.3

For each analysis, nonresponse bias was estimated for characteristics known for most respondents and nonrespondents. Bias estimates for characteristic categories that did not meet reporting requirements (fewer than 30 nonrespondents) were excluded from calculations of summary statistics. The following characteristics were used for the nonresponse bias analysis:[4]

- control and level of institution;
- Bureau of Economic Analysis Code (Office of Business Economics) Region;
- institution total enrollment;

[4] Pell, Stafford, and federal financial aid variables were updated using CPS through June 2017; unless indicated, other variables are from NPSAS:12. For continuous variables, categories were formed based on quartiles.

- age as of December 31, 2011;
- Pell Grant status;
- total Pell Grant amount received;
- Stafford Loan status;
- total Stafford Loan amount received;
- total Parent Loan for Undergraduate Students (PLUS) amount received;
- federal aid status;
- institution aid status;
- state aid status;
- CPS record available;
- major;
- percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid;
- graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150 percent of normal time to completion;
- six-year federal loan default status;
- public institution tuition and fees as percentage of core revenues (Governmental Accounting Standards Board [GASB] reporting);
- public institution instructional expenses per full-time equivalent (FTE) enrollment (GASB reporting);
- private institution tuition and fees as percentage of core revenues (Financial Accounting Standards Board [FASB] reporting);
- private institution instructional expenses per FTE enrollment (FASB reporting); and
- total number of institutions attended.

First, for the variables listed above, the nonresponse bias was estimated for each category as the weighted difference between the means (proportions) of the respondents and of the full sample, and this estimated nonresponse bias was tested using a *t* test to determine if it differed significantly from zero at the 5-percent level. Relative bias was computed as the ratio of the estimated bias to the weighted full-sample mean. Second, nonresponse adjustments were computed to reduce or eliminate institution nonresponse for key variables. The student-level characteristics listed above were examined to determine the impact on nonresponse bias at the student level using institution nonresponse adjustment models. Third, using the

weights adjusted for nonresponse, the reestimated nonresponse bias was tested for significance. These tests were complemented by effect size calculations. Finally, to better understand the effect of poststratification on efforts to reduce nonresponse bias, two additional sets of estimates were created. The first set of estimates consists of differences in respondent means before and after poststratification, which corresponds to the effect of poststratification on nonresponse adjustments. The second set of estimates, equal to the difference between base-weighted full-sample means and the poststratified respondent means, corresponds to the cumulative effects of all weighting and adjustment steps.

PETS response weight (WTC000) nonresponse bias analysis. As shown in table 16, the BPS:12 PETS weighted response rate for students using the PETS response weight was 84.5 percent overall and ranged from 46 percent for private nonprofit less-than-4-year institutions to 91 percent for public 4-year, doctorate-granting institutions. Therefore, a student-level nonresponse bias analysis was conducted overall and within each institution control and level for BPS:12 PETS.

As shown in table 19, the student nonresponse weighting adjustment eliminated some, but not all, significant bias on the observable characteristics for sectors that met reporting requirements (i.e., had at least 30 nonrespondents). Before weighting, the median effect size across all institutions was 0.05, ranging from 0.02 for students in public 4-year, doctorate-granting institutions to 0.34 for students in private nonprofit less-than-4-year institutions. The percentage of estimates associated with statistically significant bias tests was 65 percent overall. After the nonresponse weight adjustment, the median effect size for all study members was 0.01, ranging from 0.02 for students in public 4-year, non-doctorate-granting and doctorate-granting institutions to 0.33 for students in private nonprofit less-than-4-year institutions. The percentage of estimates associated with statistically significant bias tests was 5 percent overall.

Table 19. Summary of student bias analysis using weight WTC000 to define response status, by control and level of institution: 2012–17

Nonresponse bias statistics[1]	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
Before nonresponse weight adjustments[2]											
Mean percent relative bias across characteristics	6.79	7.23	5.03	2.19	1.73	15.13	3.30	2.96	16.42	13.73	12.70
Median percent relative bias across characteristics	4.57	2.67	3.37	1.34	0.97	10.50	2.06	1.48	15.53	7.55	8.31
Percentage of characteristics with significant bias	65.43	0.00	31.25	6.67	7.32	2.63	17.14	7.14	11.63	12.73	17.91
Median effect size	0.05	0.10	0.05	0.03	0.02	0.34	0.03	0.03	0.16	0.14	0.14
After nonresponse weight adjustments[3]											
Mean percent relative bias across characteristics	2.15	7.19	3.32	1.65	1.47	33.38	3.05	3.09	11.52	16.21	12.66
Median percent relative bias across characteristics	0.90	3.56	1.88	1.19	0.88	23.69	1.68	1.60	9.29	10.64	6.55
Percentage of characteristics with significant bias	4.94	0.00	4.69	0.00	4.88	0.00	0.00	2.38	2.33	12.73	14.93
Median effect size	0.01	0.10	0.03	0.02	0.02	0.33	0.03	0.03	0.11	0.15	0.12

[1] Relative bias and effect size are calculated using the weighted differences between respondent and full-sample means. Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean. Effect size is calculated as the square root of the sum over categories of the squared differences over full-sample means.
[2] Respondent and full-sample means are weighted using the student base weight.
[3] Full-sample means are weighted using the student base weight, and the respondent means are weighted using the base weight adjusted for nonresponse.
NOTE: Variables and characteristics that did not meet reporting standards were excluded from calculation of summary statistics. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

As shown in table 20, the mean absolute difference between means for respondents before and after poststratification adjustment was 0.76 for students overall and ranged from 0.84 for students in private nonprofit 4-year, non-doctorate-granting institutions to 11.67 for students in private nonprofit less-than-4-year institutions. The median difference was 0.55 for students overall and ranged from 0.48 for students in public 2-year institutions to 10.47 for students in private nonprofit less-than-4-year institutions. For the absolute differences between means for the full sample and respondents after poststratification adjustment, the mean difference was 0.69 for students overall and ranged from 0.98 for students in private nonprofit 4-year, non-doctorate-granting institutions to 8.23 for students in private nonprofit less-than-4-year institutions. The median difference was 0.49 for students overall and ranged from 0.76 for students in public 4-year, doctorate-granting institutions to 5.82 for students in private nonprofit less-than-4-year institutions.

Detailed summaries are provided in appendix H, where tables H-1–H-11 display bias analyses after nonresponse adjustments and tables H-23–H-33 detail bias analysis after nonresponse and poststratification adjustments.

Table 20. Summary of student-level differences between means using WTC000 to define response status, by control and level of institution: 2012–17

Nonresponse bias statistics	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
Difference between means for respondents before and after poststratification adjustment[1]											
Mean absolute difference across characteristics	0.76	3.58	1.42	1.26	0.91	11.67	0.84	1.68	2.16	2.81	1.87
Median absolute difference across characteristics	0.55	1.42	0.48	1.11	0.68	10.47	0.55	1.48	1.59	1.45	1.06
Difference between means for the full sample and respondents after poststratification adjustment[2]											
Mean absolute difference across characteristics	0.69	7.44	1.46	1.29	1.21	8.23	0.98	1.71	3.07	4.06	2.20
Median absolute difference across characteristics	0.49	3.62	0.83	1.00	0.76	5.82	0.85	1.66	2.47	2.54	1.61

[1] Respondent means before poststratification adjustment are weighted using the student base weight adjusted for nonresponse. Respondent means after poststratification adjustment are weighted using the student base weight adjusted for nonresponse and poststratification.
[2] Full-sample means are weighted using the student base weight, and respondent means are weighted using the student base weight adjusted for nonresponse and poststratification.
NOTE: Characteristics that did not meet reporting standards were excluded from calculation of summary statistics. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

PETS response crossed with BPS panel response weight (WTD000) nonresponse bias analysis. As shown in table 16, the BPS:12 PETS weighted response rate for students using the PETS response crossed with BPS panel response weight was 48 percent overall and ranged from 22 percent for private for-profit less-than-2-year institutions to 62 percent for private nonprofit 4-year, doctorate-granting institutions. Therefore, a student-level nonresponse bias analysis was conducted overall and within each institution control and level for BPS:12 PETS.

As shown in table 21, the student nonresponse weighting adjustment eliminated some, but not all, significant bias on the observable characteristics for sectors that met reporting requirements (i.e., had at least 30 nonrespondents). Before weighting, the median effect size for all institutions was 0.14, ranging from 0.08 for students in public 4-year, doctorate-granting institutions and private nonprofit 4-year, doctorate-granting institutions to 0.51 for students in private nonprofit less-than-4-year institutions. The percentage of estimates associated with statistically significant bias tests was 78 percent overall. After the nonresponse weight adjustment, the median effect size for all study members was 0.05, ranging from 0.07 for students in public 2-year institutions; public 4-year, doctorate-granting institutions; and private nonprofit 4-year, doctorate-granting institutions to 0.25 for students in private for-profit less-than-2-year institutions. The percentage of estimates associated with statistically significant bias tests was 41 percent overall.

Table 21. Summary of student bias analysis using weight WTD000 to define response status, by control and level of institution: 2012–17

Nonresponse bias statistics[1]	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
Before nonresponse weight adjustments[2]											
Mean percent relative bias across characteristics	17.09	18.37	12.83	9.64	7.43	31.67	12.01	7.56	30.79	25.03	17.93
Median percent relative bias across characteristics	12.02	17.01	9.72	7.10	4.83	26.84	8.15	6.11	25.82	19.37	10.98
Percentage of characteristics with significant bias	78.31	4.17	45.59	38.98	40.00	15.91	36.92	25.00	33.33	27.42	24.29
Median effect size	0.14	0.26	0.10	0.10	0.08	0.51	0.10	0.08	0.32	0.19	0.14
After nonresponse weight adjustments[3]											
Mean percent relative bias across characteristics	6.91	17.25	9.23	8.22	6.98	24.41	10.23	7.44	25.67	22.40	20.56
Median percent relative bias across characteristics	4.63	11.32	6.30	5.42	5.01	14.59	7.78	4.93	16.82	17.91	11.75
Percentage of characteristics with significant bias	40.96	4.17	33.82	27.12	33.85	2.27	18.46	15.00	19.61	17.74	25.71
Median effect size	0.05	0.23	0.07	0.09	0.07	0.23	0.08	0.07	0.25	0.22	0.20

[1] Relative bias and effect size are calculated using the weighted differences between respondent and full-sample means. Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean. Effect size is calculated as the square root of the sum over categories of the squared differences over full-sample means.
[2] Respondent and full-sample means are weighted using the student base weight.
[3] Full-sample means are weighted using the student base weight, and respondent means are weighted using the base weight adjusted for nonresponse.
NOTE: Variables and characteristics that did not meet reporting standards were excluded from calculation of summary statistics. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

As shown in table 22, the mean absolute difference between means for respondents before and after poststratification adjustment was 1.23 for students overall and ranged from 0.46 for students in private nonprofit 4-year, doctorate-granting institutions to 8.04 for students in private nonprofit less-than-4-year institutions. The median difference was 0.87 for students overall and ranged from 0.28 for students in private nonprofit 4-year, doctorate-granting institutions to 5.32 for students in public less-than-2-year institutions. For the absolute differences between means for the full sample and respondents after poststratification adjustment, the mean difference was 0.91 for students overall and ranged from 1.41 for students in private nonprofit 4-year, doctorate-granting institutions to 9.54 for students in private nonprofit less-than-4-year institutions. The median was 0.60 for students overall and ranged from 0.67 for students in public 2-year institutions to 8.05 for students in public less-than-2-year institutions.

Detailed summaries are provided in appendix H, where tables H-12–H-22 display bias analyses after nonresponse adjustments and tables H-34–H-44 detail bias analysis after nonresponse and poststratification adjustments.

Table 22. Summary of student-level differences between means using WTD000 to define response status, by control and level of institution: 2012–17

Nonresponse bias statistics	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
Difference between means for respondents before and after poststratification adjustment[1]											
Mean absolute difference across characteristics	1.23	7.98	1.83	1.84	0.85	8.04	1.86	0.46	3.57	3.05	1.35
Median absolute difference across characteristics	0.87	5.32	0.92	1.05	0.61	5.20	1.24	0.28	2.48	1.85	0.68
Difference between means for the full sample and respondents after poststratification adjustment[2]											
Mean absolute difference across characteristics	0.91	8.02	1.51	1.68	1.50	9.54	1.72	1.41	3.91	4.51	2.77
Median absolute difference across characteristics	0.60	8.05	0.67	0.98	0.99	7.41	1.42	1.06	3.06	2.51	1.73

[1] Respondent means before poststratification adjustment are weighted using the student base weight adjusted for nonresponse. Respondent means after poststratification adjustment are weighted using the student base weight adjusted for nonresponse and poststratification.
[2] Full-sample means are weighted using the student base weight, and respondent means are weighted using the student base weight adjusted for nonresponse and poststratification.
NOTE: Characteristics that did not meet reporting standards were excluded from calculation of summary statistics. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

4.4.4 Item Nonresponse Bias Analysis

NCES Statistical Standard 4-4-3A states: "For an item with a low total response rate, respondents and nonrespondents can be compared on sampling frame and/or questionnaire variables for which data on respondents and nonrespondents are available. Base weights must be used in such analysis. Comparison items should have very high response rates. A full range of available items should be used for these comparisons. This approach may be limited to the extent that items available for respondents and nonrespondents may not be related to the low response rate item being analyzed" (Seastrom 2014).

Moreover, NCES Statistical Standard 1-3-5 states: "Item response rates (RRI) are calculated as the ratio of the number of respondents for whom an in-scope response was obtained (I^x for item x) to the number of respondents who are asked to answer that item. The number asked to answer an item is the number of unit-level respondents (I) minus the number of respondents with a valid skip for item x (V^x). When an abbreviated questionnaire is used to convert refusals, the eliminated questions are treated as item nonresponse. In longitudinal analyses, the numerator of an item response rate includes cases that have data available for all waves included in the analysis and the denominator includes the number of respondents eligible to respond in all waves included in the analysis. In the case of constructed variables, the numerator includes cases that have available data for the full set of items required to construct the variable, and the denominator includes all respondents eligible to respond to all items in the constructed variable" (Seastrom 2014). The RRI is calculated as

$$RRI^x = I^x / (I - V^x).$$

A nonresponse bias analysis was conducted for analysis variables with a weighted response rate less than 85 percent for students overall or for students in a particular control and level of an institution. The BPS:12 PETS response weight (WTC000) was used for computing item response rates, shown in appendix F. The procedures and variables used for the item-level nonresponse bias analysis are the same as those used for the student-level nonresponse bias analysis presented above.

As shown in appendix F, the weighted item response rates for select analysis variables, for all students, ranged from 6 percent for *Transcript: Length of second stopout* (QT2STSTP) to 100 percent. After the two length-of-stopout variables, the next lowest weighted response rate was 50 percent for *Transcript: Co-enrollment at two or more institutions* (QTOVRLAP). All 205 analysis variables had a sufficient number of eligible students (at least 30) to permit estimation of response rates for students overall. Of these, 12 had an overall weighted response rate below 85 percent. An

additional 89 items had an overall response rate greater than 85 percent but had a weighted response rate below 85 percent for at least one institution type, yielding a total of 101 items for which nonresponse bias analyses were conducted. The results of the nonresponse bias analyses varied across items. A summary of the item nonresponse bias analysis for each item is provided in table H-45 of Appendix H.

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Appendix A. Acronyms and Abbreviations

Acronym/Abbreviation	Name
AP	Advanced Placement
BPS	Beginning Postsecondary Students Longitudinal Study
BPS:12	2012 Beginning Postsecondary Students Longitudinal Study
BPS:12/14	2012/14 Beginning Postsecondary Students Longitudinal Study
BPS:12/17	2012/17 Beginning Postsecondary Students Longitudinal Study
BRR	balanced repeated replication
CCM	College Course Map
CHAID	Chi-squared automatic interaction detection
CIP	Classification of Instructional Programs
CLEP	College Level Examination Program
COD	common origination and disbursement
CPS	Central Processing System
DEFF	design effect
DEFT	square root of the design effect
ESL	English as a second language
FAFSA	Free Application for Federal Student Aid
FASB	Financial Accounting Standards Board
FPC	finite population correction
FTB	first-time beginning
FTE	full-time equivalent
GASB	Governmental Accounting Standards Board
GIS	geographic information system
GPA	grade point average
IB	International Baccalaureate
IC	institution contactor
ICS	Institution Contacting System
IDR	income-driven repayment
IES	Institute of Education Sciences
IPEDS	Integrated Postsecondary Education Data System
KC	keyer/coder
KCS	keying/coding system
NCES	National Center for Education Statistics
NPSAS:12	2011–12 National Postsecondary Student Aid Study
NSC	National Student Clearinghouse
NSF	National Science Foundation
NSLDS	National Student Loan Data System
OPEID	Office of Postsecondary Education identification number
PDP	Postsecondary Data Portal

Acronym/Abbreviation	Name
PETS	Postsecondary Education Transcript Study
PSU	primary sampling unit
QC	quality control
QCS	quality control supervisor
ROC	Receiver Operating Characteristic
RRI	item response rates
SMART	Science and Mathematics Access to Retain Talent
SSU	secondary sampling unit
STEM	science, technology, engineering, and mathematics
UWE	unequal weighting effect
WTC	PETS response weight
WTD	PETS panel weight

Appendix B. Training Agendas for Institution Data Collection

2012 Beginning Postsecondary Students Longitudinal Study (BPS:12)
Postsecondary Education Transcript Study (PETS) and Student Records Collection
Institution Contacting Training Agenda

Day 1

9:00-9:05	Introductions • Project Team • Institution Contacting (IC) Team
9:05-9:20	Overview of Studies
9:20-9:45	IC Responsibilities • General • Communication Plan (IC Plan) • Confidentiality • Transcripts/Catalogs • Student Records
9:45-10:30	Prompting • Initial Follow Up Calls on Mailings • Identify Coordinator • Institution Contacting System (ICS) - updating contact info, roles, events • Stage Status
10:30-10:45	*BREAK*
10:45-11:15	Student Records • Schedule, timeline, methods
11:15-12:00	ICS screens
12:00-1:00	*Lunch*
1:00-1:45	Navigating the Postsecondary Data Portal (PDP) Website • Quick Guide • Mailing materials • Data elements • Completion and submit
1:45-2:30	Modes -Web
2:30-3:00	Modes-Excel and CSV
3:00-3:15	*BREAK*
3:15-3:45	Financial Aid Review
3:45-4:30	Round Robin
4:30-4:45	Wrap UP & Q&A

Day 2

9:00-9:05	Student Records Review/Q&A
9:15-10:00	Finish Paired Mocks
10:00-10:15	*BREAK*
10:15-10:45	Troubleshooting Upload Errors
10:45-12:00	Excel Template Practice
12:00-1:00	*Lunch*
1:00-1:45	Transcripts • Overview • Letters • Working with Contacts
1:45-2:30	Transcript and Catalog Prompting • Access to Website (CollegeSource) • Prompting Schools • ICS- Changing Status • Modes/Submission
2:30-3:00	Scripts/Review/Round Robin
3:00-3:15	*BREAK*
3:15-4:15	PDP Website Review
4:15-4:30	Wrap Up/Q&A

Day 3

9:00-9:15	Transcript/Catalog Q&A/Review
9:15-10:15	ICS and PDP Website Review
10:15-10:30	*BREAK*
10:30-11:00	Help Desk Issues
11:00-12:00	Practice with Excel Template
12:00-1:00	*Lunch*
1:00 on	Observed Practice

Quality Control (QC) and Follow-up Training

9:00-9:15	Transcript data receipt process
9:15-10:15	Transcript QC • Reasons transcripts do not pass quality control (QC) checks • Stage/status codes • Institution and student level reports
10:15-10:30	*BREAK*
10:30-11:00	Transcript QC (continued) • Transcript Data Transmission page on PDP • Recontacting institutions for clarifications, new data • Documenting QC follow-up and results
11:00-12:00	Student Records QC • Reasons student records do not pass quality control (QC) checks • Stage/status codes • Institution and student level reports • Student Records pages on PDP
12:00-1:00	*Lunch*
1:00-1:30	Student Records QC (continued) • Recontacting institutions for clarifications, new data • Documenting QC follow-up and results
1:30-2:00	Observed practice
2:00-2:15	Wrap Up/Q&A

2012 Beginning Postsecondary Students Longitudinal Study (BPS:12)
Postsecondary Education Transcript Study (PETS) Collection
Keying/Coding Training Agenda

Day 1

Welcome and Introductions
Overview of BPS:12/17 and PETS
Understanding Transcripts & Course Catalogs (Transcript and Catalog Scavenger Hunt)
Keying/Coding System Overview
Keying Round Robin
Keying Practice

Day 2

Review/Q&A
Coding Overview (2-digit Codes)
4– and 6-digit Codes (Coding Exercises)
Coding Practice
Transfer Credits
Keying/Coding Round Robin

Day 3

Review/Q&A
Admin Functions (Problem Sheets & QC Processes)
Difficult Transcripts
Bulk Credit
Additional Keying/Coding Practice

Day 4

Review/Q&A
Additional Keying/Coding Practice
Keying/Coding Certification

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Introductory Contact Materials for the Institutional Research Director or Chief Administrator—Not Study Specific

- Introduces the Postsecondary Data Portal (PDP)
- Not study specific
- Contents:
    - Letter from NCES Associate Commissioner
    - Packet providing overview of the PDP

Letter to Institutions—Non-Study Specific

Postsecondary Data Portal (PDP) Packet Contents (Non-study specific)

PDP Packet Letter

<date>

Dear Institutional Research Staff and Officials:

The National Center for Education Statistics (NCES) within the U.S. Department of Education's Institute of Education Sciences fulfills a Congressional mandate to collect, collate, analyze, and report complete statistics on the condition of American education. One way in which we collect data is through postsecondary-level sample surveys, many of which require that we work with U.S. institutions to collect transcripts and student records for student samples. We will also interview students themselves, who provide much-needed information on their experiences as they begin, leave, and re-enter postsecondary study, transfer between institutions, and complete programs at all levels of institutions. The combination of institution- and student-provided data affords researchers the opportunity to fully characterize the paths taken by today's college students, and provides them an important link between academic experiences, performance, and outcomes.

Recognizing that NCES data collection requests add to the workload of institution staff tasked with providing the requested data, and that several of NCES' postsecondary studies require that data be collected from institutions, NCES developed the secure Postsecondary Data Portal (PDP) website. The PDP is now the single location through which institutions will provide data required by any and all NCES postsecondary sample-based data collections. In addition, to the extent possible, studies running through the PDP will be requesting the same types of data for all selected students, further simplifying the data collection process. Institution staff will only need to learn the layout and functionality of one system, instead of having to learn a different system for every study.

The user friendly PDP (https://surveys.nces.ed.gov/Portal/) offers institutions several modes for providing data; an institution may choose its preferred method(s). Each data entry module is password-protected, so users will be required to log in before they are allowed access to confidential data and the Secure Sockets Layer (SSL) protocol is in place to encrypt data transmitted over the Internet through the PDP website.

NCES has contracted with RTI International (RTI) to carry out the institution data collections for several ongoing postsecondary studies. Your cooperation with RTI is greatly appreciated. Please be on the lookout for a request for data. The request packet will provide further detail and instructions.

For further information or questions, please contact the PDP Help Desk at 1-855-500-1441 (toll free) or via e-mail at PortalHelp@rti.org.

Sincerely,

Christopher Chapman
Associate Commissioner
National Center for Education Statistics

PDP Packet Contents

Folder Cover:

National Center for Education Statistics (NCES) Sample Studies
and the Postsecondary Data Portal

2017 PDP Packet Contents (each topic will be presented on its own sheet of paper in the PDP materials):

What is the Postsecondary Data Portal (PDP) website?

The PDP website (https://surveys.nces.ed.gov/Portal/) serves as a portal for U.S. postsecondary institutions to provide data for sample studies conducted by the National Center for Education Statistics (NCES), United States Department of Education. Each study collects data that are used by NCES for reporting and analysis and, in aggregate form (e.g., statistical tables, graphs), will be released to the public. Background information on any of the studies using the PDP can be accessed from the Home page.

The PDP was developed to provide institutions with a single website/single system through which to manage NCES data requests. Moreover, the PDP provides institutions with a secure means of transmitting their data to NCES. Secure Sockets Layer (SSL) protocol encrypts data transmitted over the Internet. Each data entry module is password-protected, requiring users to log in before they may access confidential data.

What types of data are being collected?

The PDP was first used in 2016 to collect institution enrollment lists and record data, including information on the enrollment status, demographic characteristics, and financial assistance for each sampled student for a single academic year.

Depending on the particular data needs of a study, the PDP also can be used to collect student transcripts, for one-time collections of institution record data across multiple academic years, and for annual institution record data updates.

In addition to transcript and institution record data, most of the NCES sample surveys also include interviews with student samples, providing researchers with a unique perspective on students' experiences in postsecondary education and beyond.

Which studies will collect data in 2017?

Two NCES longitudinal studies will be collecting institution data and transcripts in 2017, beginning in February.

The *Beginning Postsecondary Students Longitudinal Study* (BPS) surveys "first-time" college students at three points in time: at the end of their first year, in their 3rd academic, and in their 6th academic year after first starting in postsecondary education. BPS collects data on student demographic characteristics, school and work experiences, enrollment persistence, transfers, degree attainment, and transition to employment. In 2017, data will be collected for the BPS:12 student cohort who started college, for the first time after leaving high school, during the 2011-12 academic year.

The *High School Longitudinal Study of 2009* (HSLS:09) is a nationally representative, longitudinal study following a cohort of students who were in ninth grade during the 2009-2010 school year. The study focuses on understanding how high school experiences affect young adults' learning and their education and career choices over time. The study also explores young adults' transitions from high school to college, to the labor force, or to adult roles. Of special interest is course-taking and career preparation in science, technology, engineering, and math (STEM).

What privacy and confidentiality assurances are in place?

Both NCES and RTI International follow strict procedures to protect the privacy and confidentiality of study participants and data. All project staff have signed confidentiality agreements and affidavits of nondisclosure. All data released to the general public (e.g., statistical tables) will be designed so that it will not be possible to identify individuals. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

Why should your institution participate?

The quality and affordability of postsecondary education are vital concerns for students and their families. The data collected from transcripts, institution records, and student interviews provide much-needed information on the course of study of today's college students as they begin, leave, and re-enter postsecondary study; transfer between institutions; and complete programs at all levels of institutions. The combination of these data affords researchers the opportunity to summarize the undergraduate and graduate paths taken by sample members, providing an important link between academic performance and outcomes.

Study-Specific Contact Materials for the Institutional Research Director or Chief Administrator – Joint Study Collection

- Letter requests institution's participation in transcript and student records collection for two studies.

Transcript and Student Records Collection Letter to IR Director or Chief Administrator—Joint Study Collection

The text of the letter is also sent in an e-mail.

(date)

(Salutation) (FirstName) (LastName)
(Title)
(Institution)
(Address)
(City), (State) (Zip)

Dear (Salutation) (LastName):

[A student/Students] from (Institution) [has/have] been participating in one of two longitudinal studies that are being conducted by the National Center for Education Statistics with data collection being carried out by RTI International, a nonprofit research organization. The studies are

- the High School Longitudinal Study of 2009 (HSLS:09); and
- the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12).

HSLS:09 collects information on individuals who were sampled from their high schools as 9th graders in the 2009-2010 academic year and focuses on understanding how high school experiences affect young adults' learning and their education and career choices. BPS:12 collects information, such as students' postsecondary experiences, work while enrolled, persistence in school, degree completion, and employment following enrollment, from individuals who began their postsecondary education for the first time in the 2011-12 academic year. The next phase in the data collections for HSLS:09 and BPS:12 is to collect transcript and student record data from institutions attended by students in these studies, including (Institution).

The enclosed materials describe our data collection process and provide a summary description of the laws and procedures safeguarding the collected data. NCES is authorized to conduct these studies by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Additional information, including reports based on data from previous rounds of HSLS:09 and BPS:12, is available on the NCES website at https://nces.ed.gov/surveys/.

We ask that you log in to the secure NCES Postsecondary Data Portal website and designate a primary coordinator (PC) for the 2017 institution data collections. The login information is included at the bottom of this letter. (Please note that the password is temporary and you will need to create a new one the first time you log in.) Please also pass along the two request packets you received with this letter to the PC. RTI staff will be in touch with him/her to answer questions and will send another copy of the request packets, if needed.

If you have any questions about the studies or the data collection process, please contact the Help Desk at 1-855-500-1441 or via e-mail at PortalHelp@rti.org. You may also direct questions to Sean Simone, Ph.D. at NCES at 1-202-245-7631 or at Sean.Simone@ed.gov.

We look forward to your participation in this important study. Thank you for your cooperation.

Sincerely,

Christopher Chapman
Associate Commissioner
National Center for Education Statistics

Enclosures

For more information on the data collection, please visit:

https://surveys.nces.ed.gov/portal

IR Director user name: (UserName)
Your temporary password: (Password)

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for these voluntary information collections are 1850-0852 (HSLS:09) and 1850-0631 (BPS:12). The time required to complete the information collections is estimated to average approximately 3.3 hours per response (HSLS:09) and 11.6 hours per response (BPS:12), including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving the collections, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Contacting Materials – Joint Study Collection

- Letter to registrar or designee from RTI
- Letter to registrar or designee from NCES commissioner
- Letter from endorsing organization(s)
- Additional students letter
- Additional student non-respondent letter
- Letter to Coordinator – Transcripts Submitted
- Letter to Coordinator – Transcripts Not Received
- Letter to registrar or designee – No Progress in 2017 Collection
- List of endorsing organizations
- Instructions for providing transcript data
- FERPA fact sheet
- Brochure text
- Disclosure notice
- FAX test page
- FAX transmittal sheet
- Catalog transmittal sheet
- Email reminder

Transcript Collection—Request Letter from RTI to Registrar or Designee—Joint Study Collection

The text of the letter is also sent in an e-mail.

{date}

{contact_fname} {contact_lname}
{inst_name}
{inst_addr1}
{inst_adr2}
{inst_city}, {inst_st} {inst_zip}

Dear {contact_salute} {contact_lname}:

As was relayed to [fill name of IR director], [a student/students] from (Institution) [has/have] been participating in one of two longitudinal studies that are being conducted by the National Center for Education Statistics with data collection being carried out by RTI International, a nonprofit research organization. The studies are

- the High School Longitudinal Study of 2009 (HSLS:09); and
- the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12).

HSLS:09 collects information on individuals who were sampled from their high schools as 9th graders in 2009 and focuses on understanding how high school experiences affect young adults' learning and their educational and career choices. BPS:12 collects information, such as the students' postsecondary experiences, work while enrolled, persistence in school, degree completion, and employment following enrollment, from individuals who began their postsecondary education for the first time in 2011-12. The next phase in the data collections for HSLS:09 and BPS:12 is to collect transcript and student record data from institutions attended by students in these studies, including (Institution). We have enclosed a letter from Christopher Chapman, Associate Commissioner of NCES, reiterating the importance of this collection.

We are writing to request transcripts for {sch_num} sample member{s} who attended your institution. To facilitate our coding of your institution's transcripts, it would be helpful to also receive a mapping of your institution's degree programs and courses to the Classification of Instructional Programs, if such a mapping exists.

A list of students for whom transcripts are requested is posted, with their student ID numbers and dates of birth, at the secure NCES Postsecondary Data Portal website listed in the box below. To gain access to the site, you will need to log in using the username and password printed at the bottom of this letter. Included with this package, and on the PDP website, are detailed instructions for preparing and transmitting transcript data to RTI. Also available at the website are instructions for obtaining reimbursement for the requested transcripts, should your institution require it. We would appreciate receiving the requested transcript data on or before {DUE DATE}. Please do not hesitate to call me if you feel you need to have a later delivery date.

Thank you in advance for your timely participation in this important effort. Please feel free to contact us for additional information. You can reach us by telephone at 1-855-500-1441 or e-mail at PortalHelp@rti.org.

Sincerely,

Daniel Pratt
Director, HSLS:09

Mike Bryan
Director, BPS:12 PETS

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the primary coordinator, fill:
Primary Coordinator user name: «UserName»
Your temporary password: «password»
If mailing to other staff, fill:
Please contact the PDP Primary Coordinator at your institution,
<fill name> for login credentials.

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for these voluntary information collections are 1850-0852 (HSLS:09) and 1850-0631 (BPS:12). The time required to complete the information collections is estimated to average approximately 30 minutes per response (HSLS:09) and 10 minutes per response (BPS:12), including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving the collections, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—Request Letter from NCES to Registrar or Designee—Joint Study Collection

The text of the letter is also sent in an e-mail.

<date>

Dear Registrars and Officials:

«entity_name» has been selected to participate in the High School Longitudinal Study of 2009 (HSLS:09) and 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study being conducted by the National Center for Education Statistics (NCES), U.S. Department of Education. HSLS:09 collects information on individuals who were sampled from their high schools as 9th graders in 2009 and focuses on understanding how high school experiences affect young adults' learning and their educational and career choices. BPS:12 collects information, such as the students' postsecondary experiences, work while enrolled, persistence in school, degree completion, and employment following enrollment, from individuals who began their postsecondary education for the first time in 2011-12.

As part of these studies, NCES is requesting transcripts for sample members who have attended your institution. We have contracted with RTI International (RTI) to collect the transcripts, and your cooperation with RTI in this important study is greatly appreciated. The many secure options available to you for providing transcript data are described in the enclosed package.

Let me assure you that very stringent measures are in place to safeguard participants' information (see enclosed "Disclosure Notice" on the PDP). For the purposes of this collection, the Family Educational Rights and Privacy Act of 1974 (FERPA) permits educational institutions to disclose personally identifiable information from students' education records, without consent, to authorized representatives of the Secretary of Education in connection with an evaluation of federally supported education programs (34 CFR §§ 99.31(a)(3) and 99.35). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). NCES is authorized to conduct these studies by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. The enclosed *Family Educational Rights and Privacy Act Fact Sheet* includes the text of the FERPA requirements, with passages that authorize this transcript data collection highlighted.

While we may need to contact you again should we learn that there are additional sample members who attended your institution, our processes and procedures are designed to minimize the burden on you and your staff. For further information or questions, please contact RTI's Help Desk at 1-855-500-1441 or PortalHelp@rti.org. You may also contact Sean Simone at NCES at (202) 245-7631 or Sean.Simone@ed.gov.

Sincerely,

Christopher Chapman
Associate Commissioner
National Center for Education Statistics

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for these voluntary information collections are 1850-0852 (HSLS:09) and 1850-0631 (BPS:12). The time required to complete the information collections is estimated to average approximately 30 minutes per response (HSLS:09) and 10 minutes per response (BPS:12), including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving the collections, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—Request Letter from Endorsing Agency to Registrar or Designee—Joint Study Collection

Dear Colleague:

I am writing to ask for your assistance with the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study. These studies seek transcript data from postsecondary institutions to supplement student interview and other administrative data and are endorsed by [ENDORSING AGENCIES].

HSLS:09 follows a cohort of students, sampled as 9th graders in 2009, through their education and employment experiences over time. BPS:12 collects data over time on students who began their postsecondary education for the first time in 2011-12, including information on students' postsecondary experiences, work while enrolled, persistence in school, degree completion, and employment following enrollment. The data are collected by RTI International for the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute of Education Sciences.

HSLS:09 and BPS:12 postsecondary transcript data will be combined with data from student interviews, other institution records, and administrative databases to provide a total picture of each cohort. The enclosed materials describe the uses of the data.

Transcript data are being collected in compliance with the *Family Educational Rights and Privacy Act* (FERPA). The Family Educational Rights and Privacy Act of 1974 (FERPA) (20 U.S.C. §1232[g]) allows for the release of institution record information to the Secretary of Education or his agent without prior consent of survey members (34 CFR §§ 99.31(a)(3) and 99.35). NCES is authorized to conduct these studies by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). RTI International, as the contractor for NCES, has been given the authority to collect information from institution records under federal law.

Your cooperation and assistance in providing transcripts to RTI in a timely manner will be greatly appreciated.

Sincerely,

[NAME]
[TITLE, ENDORSING AGENCY]

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the primary coordinator, fill:
Primary Coordinator user name: «UserName»
Your temporary password: «password»
If mailing to other staff, fill:
Please contact the PDP Primary Coordinator at your institution,
<fill name> for login credentials.

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for these voluntary information collections are 1850-0852 (HSLS:09) and 1850-0631 (BPS:12). The time required to complete the information collections is estimated to average approximately 30 minutes per response (HSLS:09) and 10 minutes per response (BPS:12), including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving the collections, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection – NCES Letter to Registrar or Designee for Additional Students – Joint Study Collection

The text of the letter is also sent in an e-mail.

{date}

{contact_fname} {contact_lname}
{inst_name}
{inst_addr1}
{inst_adr2}
{inst_city}, {inst_st} {inst_zip}

Dear {contact_salute} {contact_lname}:

As you may recall, we contacted you recently to obtain transcripts for students who attended «entity_name» and are sample members in either the High School Longitudinal Study of 2009 (HSLS:09) or the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study being conducted by the National Center for Education Statistics (NCES) with data collection carried out by RTI. We want to thank you for your efforts in providing those valuable data. We are contacting you again to seek additional transcripts. In our previous communications we indicated that we may need to contact you again to request transcripts for additional sample members who we learn attended your institution. We are requesting transcripts for these {phase2_num} students. [*If only 1 student, then we would say:* We are requesting the transcript for one additional student.]

Included with this package are detailed instructions for preparing and transmitting transcript data to RTI. A list of students for whom transcripts are requested is posted at the secure PDP website listed in the box below. You may also wish to discuss obtaining reimbursement for the requested transcripts and can contact RTI's Help Desk at the information listed below. **We would appreciate receiving the requested transcript data on or before {DUE DATE}.** Please contact the Help Desk if you feel you need to have a later delivery date. You can contact the help desk by telephone at 1-855-500-1441 or e-mail at PortalHelp@rti.org.

Thank you in advance for your timely participation in this important effort.

Sincerely,

Elise Christopher, Ph.D.
Project Officer, HSLS:09
National Center for Education Statistics

Sean Simone, Ph.D.
Project Officer, BPS:12 PETS
National Center for Education Statistics

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the primary coordinator, fill:
If you need assistance with your login credentials, please contact the Help Desk.
If mailing to other staff, fill:
Please contact the PDP Primary Coordinator at your institution,
<fill name> for login credentials.

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for these voluntary information collections are 1850-0852 (HSLS:09) and 1850-0631 (BPS:12). The time required to complete the information collections is estimated to average approximately 30 minutes per response (HSLS:09) and 10 minutes per response (BPS:12), including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving the collections, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—RTI Letter to Registrar or Designee for Additional Students of Nonrespondent Institutions—Joint Study Collection

{date}

{contact_fname} {contact_lname}
{inst_name}
{inst_addr1}
{inst_adr2}
{inst_city}, {inst_st} {inst_zip}

Dear {contact_salute} {contact_lname}:

We are writing to request your participation in the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study for the National Center for Education Statistics (NCES), U.S. Department of Education. We are collecting the undergraduate transcripts of sample members participating in HSLS:09 and BPS:12, and would like to request transcripts for «totcases» sample members who attended your institution. In order to accommodate competing demands on your time, we can be flexible on the date for submitting the requested data and will reimburse your institution for the cost of preparing the transcripts.

Assurance of confidentiality and legal authority. Transcript data are collected in full compliance with the provisions of the Family Educational Rights and Privacy Act (FERPA) that allow the release of student records to the Secretary of Education or his or her agent without prior written consent from students. NCES is authorized to conduct these studies by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization.

Stringent safeguards are in place to protect student confidentiality. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

Value of the data. Transcript data will be combined with study participants' interview data and other administrative records collected for them to create a rich longitudinal dataset. Your provision of the requested transcript data maximizes the time and effort students have already invested through their participation in the longitudinal studies.

Instructions for participating. Enclosed are instructions for preparing and transmitting transcript data to NCES, as well as brochures with additional information about the transcript collection and the studies being conducted. A list of students for whom transcripts are requested can be found at the secure NCES Postsecondary Data Portal website: https://surveys.nces.ed.gov/portal. The website also provides instructions for obtaining reimbursement. If you have questions about how to prepare and send transcript data, please contact the Help Desk at 1-855-500-1441 (toll free).

I would appreciate your sending us the requested transcript data by «due_date», but please call (1-855-500-1441) or e-mail (PortalHelp@rti.org) if you need to adjust your delivery date. Thank you for your cooperation in this important data collection.

Sincerely,

Dan Pratt
Director, HSLS:09

Mike Bryan
Director, BPS:12 PETS

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the primary coordinator, fill:
If you need assistance with your login credentials, please contact the Help Desk.
If mailing to other staff, fill:
Please contact the PDP Primary Coordinator at your institution,
<fill name> for log in credentials.

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for these voluntary information collections are 1850-0852 (HSLS:09) and 1850-0631 (BPS:12). The time required to complete the collections is estimated to average approximately 30 minutes per response (HSLS:09) and 10 minutes per response (BPS:12), including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving the collections, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—NCES Letter to Coordinator—HSLS:09 Transcripts Submitted—Joint Study Collection

The text of the letter is also sent in an e-mail.

{date}

{contact_fname} {contact_lname}
{inst_name}
{inst_addr1}
{inst_adr2}
{inst_city}, {inst_st} {inst_zip}

Dear {contact_salute} {contact_lname}:

As you may recall, we contacted you (fill: earlier this year/last year) to obtain transcripts and student records data for students who attended «entity_name» and are sample members in the High School Longitudinal Study of 2009 (HSLS:09) or the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) being conducted by the National Center for Education Statistics (NCES) with data collection carried out by RTI. We want to thank you for your efforts in providing those valuable data. (IF Student Records not submitted: We have concluded the collection of student records data, but are continuing to collect transcripts.) We are contacting you again to seek additional transcripts. We are now requesting transcripts for <BPScount> student(s) who are participating in the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12).

Included with this package are detailed instructions for preparing and transmitting transcript data to RTI. A list of students for whom transcripts are requested is posted at the secure PDP website listed in the box below. You may also wish to discuss obtaining reimbursement for the requested transcripts and can contact RTI's Help Desk at the information listed below. **We would appreciate receiving the requested transcript data on or before {DUE DATE}.** Please contact the Help Desk if you feel you need to have a later delivery date. You can contact the help desk by telephone at 1-855-500-1441 or e-mail at PortalHelp@rti.org.

Thank you in advance for your timely participation in this important effort.

Sincerely,

Sean Simone, Ph.D.
Project Officer, BPS:12 PETS
National Center for Education Statistics

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the 2017 primary coordinator, fill:
If you need assistance with your login credentials, please contact the Help Desk.
If mailing to other staff, fill:
Please contact the PDP Primary Coordinator at your institution,
<fill name> for login credentials.

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for these voluntary information collections are 1850-0852 (HSLS:09) and 1850-0631 (BPS:12). The time required to complete the information collections is estimated to average approximately 30 minutes per response (HSLS:09) and 60 minutes per response (BPS:12), including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving the collections, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—NCES Letter to Coordinator—HSLS:09 Transcripts Not Received—Joint Study Collection

The text of the letter is also sent in an e-mail.

{date}

{contact_fname} {contact_lname}
{inst_name}
{inst_addr1}
{inst_adr2}
{inst_city}, {inst_st} {inst_zip}

Dear {contact_salute} {contact_lname}:

As you may recall, we contacted you (fill: earlier this year/last year) to obtain transcripts and student records data for students who attended «entity_name» and are sample members in the High School Longitudinal Study of 2009 (HSLS:09) or the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) being conducted by the National Center for Education Statistics (NCES) with data collection carried out by RTI. (IF Student Records outstanding: We have concluded the collection of student records data, but are continuing to collect transcripts.) (IF Student Records submitted: We want to thank you for your efforts in providing those valuable data.) We are contacting you again to seek *only the transcripts* for the sample members. There are <HSLS_BPScount> students in total.

Included with this package are detailed instructions for preparing and transmitting transcript data to RTI. A list of students for whom transcripts are requested is posted at the secure PDP website listed in the box below. You may also wish to discuss obtaining reimbursement for the requested transcripts and can contact RTI's Help Desk at the information listed below. **We would appreciate receiving the requested transcript data on or before {DUE DATE}.** Please contact the Help Desk if you feel you need to have a later delivery date. You can contact the help desk by telephone at 1-855-500-1441 or e-mail at PortalHelp@rti.org.

Thank you in advance for your timely participation in this important effort.

Sincerely,

Sean Simone, Ph.D.
Project Officer, BPS:12 PETS
National Center for Education Statistics

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the 2017 primary coordinator, fill:
If you need assistance with your login credentials, please contact the Help Desk.
If mailing to other staff, fill:
Please contact the PDP Primary Coordinator at your institution,
<fill name> for login credentials.

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for these voluntary information collections are 1850-0852 (HSLS:09) and 1850-0631 (BPS:12). The time required to complete the information collections is estimated to average approximately 30 minutes per response (HSLS:09) and 60 minutes per response (BPS:12), including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving the collections, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—Request Letter from RTI to Registrar or Designee—No Progress in 2017 Collection—Joint Study Collection

The text of the letter is also sent in an e-mail.

Note: This letter will be accompanied by a copy of the previously sent *Transcript Collection—Request Letter from NCES to Registrar or Designee—Joint Study Collection* that was signed by Christopher Chapman (page C-11).

{date}

{contact_fname} {contact_lname}
{inst_name}
{inst_addr1}
{inst_adr2}
{inst_city}, {inst_st} {inst_zip}

Dear {contact_salute} {contact_lname}:

[A student/Students] from (Institution) [has/have] been participating in one of two longitudinal studies that are being conducted by the National Center for Education Statistics with data collection being carried out by RTI International, a nonprofit research organization. The studies are

- the High School Longitudinal Study of 2009 (HSLS:09); and
- the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12).

We are writing to request transcripts for {sch_num} sample member{s} who attended your institution.

HSLS:09 collects information on individuals who were sampled from their high schools as 9th graders in 2009 and focuses on understanding how high school experiences affect young adults' learning and their educational and career choices. BPS:12 collects information, such as the students' postsecondary experiences, work while enrolled, persistence in school, degree completion, and employment following enrollment, from individuals who began their postsecondary education for the first time in 2011-12. The next phase in the data collections for HSLS:09 and BPS:12 is to collect transcripts from institutions attended by students in these studies, including (Institution). We have enclosed a letter from Christopher Chapman, Associate Commissioner of NCES, reiterating the importance of this collection.

A list of students for whom transcripts are requested is posted, with their student ID numbers and dates of birth, at the secure NCES Postsecondary Data Portal website listed in the box below. To gain access to the site, you will need to log in using the username and password printed at the bottom of this letter. Included with this package, and on the PDP website, are detailed instructions for preparing and transmitting transcript data to RTI. Also available at the website are instructions for obtaining reimbursement for the requested transcripts, should your institution require it. We would appreciate receiving the requested transcript data on or before {DUE DATE}. Please do not hesitate to call me if you feel you need to have a later delivery date.

Thank you in advance for your timely participation in this important effort. Please feel free to contact us for additional information. You can reach us by telephone at 1-855-500-1441 or e-mail at PortalHelp@rti.org.

Sincerely,

Daniel Pratt
Director, HSLS:09

Mike Bryan
Director, BPS:12 PETS

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the 2017 primary coordinator, fill:
Primary Coordinator user name: «UserName»
Your temporary password: «password»

If mailing to other staff, fill:
User name: «UserName»
Your temporary password: «password»

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control numbers for these voluntary information collections are 1850-0852 (HSLS:09) and 1850-0631 (BPS:12). The time required to complete the information collections is estimated to average approximately 30 minutes per response (HSLS:09) and 60 minutes per response (BPS:12), including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving the collections, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—Instructions for Providing Transcript Data –Joint Study Collection

Postsecondary Education Transcript Study

Example text for this document is included below.

There are 5 primary steps, outlined below, for providing transcript data. To begin, you will need to log on to the secure NCES Postsecondary Data Portal website at https://surveys.nces.ed.gov/portal using the username and password printed at the bottom of the letter you received from RTI. If you are not the Primary Coordinator, please contact him/her for login credentials.
NOTE: You will need your username and password each time you log in to the website.

1 Complete the Institution Information Page

Once logged onto the PDP, you will provide or confirm selected information about your institution, including GPA scale and grading system, on the Institution Information Page (IIP). This page is accessible from the Task Menu.

2 Complete the Transcript Data Transmission Page

On the Transcript Data Transmission Page, each student's name, student ID number (if known), and date of birth will be listed. Please check the box next to each student whose transcript you are sending and select the mode of submission. If you are unable to provide a transcript, please enter the reason in the space provided—for example, "No record of student's attendance" or "Transcript cannot be located." Please print and retain a copy for your records.

3 Transmit Transcript Data

A number of options are available for transmitting transcript data, each of which is discussed below. If you need assistance with this process, please contact the PDP Help Desk toll-free at 1-855-500-1441 or via e-mail at PortalHelp@rti.org.

Upload to the Secure NCES Postsecondary Data Portal Website: Uploading electronic transcript data directly to the secure website, preferably in XML or EDI format that conforms to the PESC standard, is the preferred method for sending transcript data. If your transcript data are not in one of these formats, we ask that you or a programmer from your institution convert them to a format that we can process using the file specifications available from the link entitled "Upload transcript data in CSV or fixed-width format" on the Transcript Data Transmission page available from the Task Menu.

If you are unable to reformat the transcript data to match the file specifications, we will accept them in their existing electronic format. *NOTE: The XML formatted transcript should adhere to the PESC XML standard format for college transcript, version 1.0.0. The EDI formatted transcript should adhere to the PESC EDI standard format for Student Educational Record (Transcript).*

Send Transcript Data as an Encrypted Attachment by Electronic Mail: If you choose to use electronic mail (email) to submit student transcript data, the attachment containing the data will need to be encrypted, using software such as SecureZIP® (select the option Use FIPS 140 Mode), to ensure they are transmitted securely. SecureZIP® can be downloaded free of charge from the website: https://www.pkware.com/software/securezip. Detailed instructions for downloading and using SecureZIP can be accessed from the link "Email transcript data as an encrypted attachment." If you choose to use encryption software other than SecureZIP®, please contact the Help Desk to ensure that the software complies with our security standards.

Once the attachment is encrypted, send to PortalHelp@rti.org and include the file names and descriptions.

Send Transcript Data by Secure File Transfer Protocol (sFTP): If you choose to submit transcript data using the sFTP site, please contact the Help Desk to obtain the sFTP site location and your username and password. Additional instructions on how to perform the data transfer via sFTP may be accessed from the link "Send transcript data by secure File Transfer Protocol (sFTP)." After you have successfully uploaded your files to the sFTP server, please send an email to PortalHelp@rti.org with the names of the files and their structure.

Send Transcript Data via eSCRIP-SAFE™: If you are a registered eSCRIP-SAFE™ sender and wish to use eSCRIP-SAFE™ to send your transcripts, please select RTI International, U.S. Department of Education Longitudinal Studies as the transcript recipient.

Fax Hard Copy Transcripts: If your institution is unable to provide the transcript data electronically via any of the methods previously mentioned, you may fax transcripts to our secure fax machine at <FaxLineNumber>. First, fax the Student Transcript Fax Test Page included in your institution packet, with your name, telephone number, and fax number, to ensure that the transfer is working correctly. An automated reply fax will confirm that we successfully received the test page. Once you receive confirmation, fax the completed Student Transcript Fax Transmittal Sheet along with the transcripts. Some institutions' fax machines are not set up to receive automated replies. In these cases, we ask that you verify that the test fax was successfully sent by checking the status page that is produced by your fax machine and ensure that the transmission was successful and that the correct number of pages were sent. If so, you may then hit redial and send the completed Student Transcript Fax Transmittal Sheet along with the transcripts. If you encounter difficulty, please contact the fax help line at 1-855-500-1441. If you do not have the fax test page or transmittal sheet, you may print a copy from the link "Fax hard copy transcripts."

Once you have sent the transcript data, click Submit on the Transcript Data Transmission page.

4 Provide CIP Code Mappings

When transcript data are received at RTI, the individual courses and majors reported in the transcripts will be coded using the National Center for Education Statistics' (NCES) College Course Map (for courses) and Classification of Instructional Programs (CIP) (for majors). Institutions that use either of these coding systems for their data are encouraged to transmit coded data for the requested sample members to NCES by uploading to the secure study website or sending via email to PortalHelp@rti.org. If you choose to upload the mappings, please select "Upload CIP code mappings" from the Main Menu.

5 Provide Requested Course Catalogs

If we need a course catalog from your institution, there will be a Catalog Transmittal Sheet in your packet. It includes a list of the catalogs requested and instructions for sending them to RTI. If you do not find a Catalog Transmittal Sheet in your packet, then no catalogs are needed from your institution at this time.

Transcript Collection—Family Educational Rights and Privacy Act Fact Sheet—Joint Study Collection

34 CFR PART 99

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Subpart A—GENERAL

§99.1 To which educational agencies or institutions do these regulations apply?

(a) Except as otherwise noted in §99.10, this part applies to an educational agency or institution to which funds have been made available under any program administered by the Secretary, if—

(1) The educational institution provides educational services or instruction, or both, to students; or

(2) The educational agency is authorized to direct and control public elementary or secondary, or postsecondary educational institutions.

(b) This part does not apply to an educational agency or institution solely because students attending that agency or institution receive non-monetary benefits under a program referenced in paragraph (a) of this section, if no funds under that program are made available to the agency or institution.

(c) The Secretary considers funds to be made available to an educational agency or institution of funds under one or more of the programs referenced in paragraph (a) of this section—

(1) Are provided to the agency or institution by grant, cooperative agreement, contract, subgrant, or subcontract; or

(2) Are provided to students attending the agency or institution and the funds may be paid to the agency or institution by those students for educational purposes, such as under the Pell Grant Program and the Guaranteed Student Loan Program (titles IV-A-1 and IV-B, respectively, of the Higher Education Act of 1965, as amended).

(d) If an educational agency or institution receives funds under one or more of the programs covered by this section, the regulations in this part apply to the recipient as a whole, including each of its components (such as a department within a university).

(Authority: 20 U.S.C. 1232g)

Subpart D—MAY AN EDUCATIONAL AGENCY OR INSTITUTION DISCLOSE PERSONALLY IDENTIFIABLE INFORMATION FROM EDUCATION RECORDS?

§99.30 Under what conditions is prior consent required to disclose information?

(a) The parent or eligible student shall provide a signed and dated written consent before an educational agency or institution discloses personally identifiable information from the student's education records, except as provided in §99.31.

(b) The written consent must:

(1) Specify the records that may be disclosed;

(2) State the purpose of the disclosure; and

(3) Identify the party or class of parties to whom the disclosure may be made.

(c) When a disclosure is made under paragraph (a) of this section:

(1) If a parent or eligible student so requests, the educational agency or institution shall provide him or her with a copy of the records disclosed; and

(2) If the parent of a student who is not an eligible student so requests, the agency or institution shall provide the student with a copy of the records disclosed.

(d) "Signed and dated written consent" under this part may include a record and signature in electronic form that—

(1) Identifies and authenticates a particular person as the source of the electronic consent; and

(2) Indicates such person's approval of the information contained in the electronic consent.

(Authority: 20 U.S.C. 1232g (b)(1) and (b)(2)(A))

§99.31 Under what conditions is prior consent not required to disclose information?

(a) An educational agency or institution may disclose personally identifiable information from an education record of a student without the consent required by §99.30 if the disclosure meets one or more of the following conditions:

(1)(i)(A) The disclosure is to other school officials, including teachers, within the agency or institution whom the agency or institution has determined to have legitimate educational interests.

(B) A contractor, consultant, volunteer, or other party to whom an agency or institution has outsourced institutional services or functions may be considered a school official under this paragraph provided that the outside party—

(*1*) Performs an institutional service or function for which the agency or institution would otherwise use employees;

(*2*) Is under the direct control of the agency or institution with respect to the use and maintenance of education records; and

(*3*) Is subject to the requirements of §99.33(a) governing the use and redisclosure of personally identifiable information from education records.

(ii) An educational agency or institution must use reasonable methods to ensure that school officials obtain access to only those education records in which they have legitimate educational interests. An educational agency or institution that does not use physical or technological access controls must ensure that its administrative policy for controlling access to education records is effective and that it remains in compliance with the legitimate educational interest requirement in paragraph (a)(1)(i)(A) of this section.

(2) The disclosure is, subject to the requirements of §99.34, to officials of another school, school system, or institution of postsecondary education where the student seeks or intends to enroll, or where the student is already enrolled so long as the disclosure is for purposes related to the student's enrollment or transfer.

NOTE: Section 4155(b) of the No Child Left Behind Act of 2001, 20 U.S.C. 7165(b), requires each State to assure the Secretary of Education that it has a procedure in place to facilitate the transfer of disciplinary records with respect to a suspension or expulsion of a student by a local educational agency to any private or public elementary or secondary school in which the student is subsequently enrolled or seeks, intends, or is instructed to enroll.

(3) The disclosure is, subject to the requirements of §99.35, to authorized representatives of—

(i) The Comptroller General of the United States;

(ii) The Attorney General of the United States;

(iii) The Secretary; or

(iv) State and local educational authorities.

(4)(i) The disclosure is in connection with financial aid for which the student has applied or which the student has received, if the information is necessary for such purposes as to:

(A) Determine eligibility for the aid;

(B) Determine the amount of the aid;

(C) Determine the conditions for the aid; or

(D) Enforce the terms and conditions of the aid.

(ii) As used in paragraph (a)(4)(i) of this section, *financial aid* means a payment of funds provided to an individual (or a payment in kind of tangible or intangible property to the individual) that is conditioned on the individual's attendance at an educational agency or institution.

(5)(i) The disclosure is to State and local officials or authorities to whom this information is specifically—

(A) Allowed to be reported or disclosed pursuant to State statute adopted before November 19, 1974, if the allowed reporting or disclosure concerns the juvenile justice system and the system's ability to effectively serve the student whose records are released; or

(B) Allowed to be reported or disclosed pursuant to State statute adopted after November 19, 1974, subject to the requirements of §99.38.

(ii) Paragraph (a)(5)(i) of this section does not prevent a State from further limiting the number or type of State or local officials to whom disclosures may be made under that paragraph.

(6)(i) The disclosure is to organizations conducting studies for, or on behalf of, educational agencies or institutions to:

(A) Develop, validate, or administer predictive tests;

(B) Administer student aid programs; or

(C) Improve instruction.

(ii) Nothing in the Act or this part prevents a State or local educational authority or agency headed by an official listed in paragraph (a)(3) of this section from entering into agreements with organizations conducting studies under paragraph (a)(6)(i) of this section and redisclosing personally identifiable information from education records on behalf of educational agencies and institutions that disclosed the information to the State or local educational authority or agency headed by an official listed in paragraph (a)(3) of this section in accordance with the requirements of §99.33(b).

(iii) An educational agency or institution may disclose personally identifiable information under paragraph (a)(6)(i) of this section, and a State or local educational authority or agency headed by an official listed in paragraph (a)(3) of this section may redisclose personally identifiable information under paragraph (a)(6)(i) and (a)(6)(ii) of this section, only if—

(A) The study is conducted in a manner that does not permit personal identification of parents and students by individuals other than representatives of the organization that have legitimate interests in the information;

(B) The information is destroyed when no longer needed for the purposes for which the study was conducted; and

(C) The educational agency or institution or the State or local educational authority or agency headed by an official listed in paragraph (a)(3) of this section enters into a written agreement with the organization that—

(*1*) Specifies the purpose, scope, and duration of the study or studies and the information to be disclosed;

(*2*) Requires the organization to use personally identifiable information from education records only to meet the purpose or purposes of the study as stated in the written agreement;

(*3*) Requires the organization to conduct the study in a manner that does not permit personal identification of parents and students, as defined in this part, by anyone other than representatives of the organization with legitimate interests; and

(*4*) Requires the organization to destroy all personally identifiable information when the information is no longer needed for the purposes for which the study was conducted and specifies the time period in which the information must be destroyed.

(iv) An educational agency or institution or State or local educational authority or Federal agency headed by an official listed in paragraph (a)(3) of this section is not required to initiate a study or agree with or endorse the conclusions or results of the study.

(v) For the purposes of paragraph (a)(6) of this section, the term *organization* includes, but is not limited to, Federal, State, and local agencies, and independent organizations.

(7) The disclosure is to accrediting organizations to carry out their accrediting functions.

(8) The disclosure is to parents, as defined in §99.3, of a dependent student, as defined in section 152 of the Internal Revenue Code of 1986.

(9)(i) The disclosure is to comply with a judicial order or lawfully issued subpoena.

(ii) The educational agency or institution may disclose information under paragraph (a)(9)(i) of this section only if the agency or institution makes a reasonable effort to notify the parent or eligible student of the order or subpoena in advance of compliance, so that the parent or eligible student may seek protective action, unless the disclosure is in compliance with—

(A) A Federal grand jury subpoena and the court has ordered that the existence or the contents of the subpoena or the information furnished in response to the subpoena not be disclosed;

(B) Any other subpoena issued for a law enforcement purpose and the court or other issuing agency has ordered that the existence or the contents of the subpoena or the information furnished in response to the subpoena not be disclosed; or

(C) An *ex parte* court order obtained by the United States Attorney General (or designee not lower than an Assistant Attorney General) concerning investigations or prosecutions of an offense listed in 18 U.S.C. 2332b(g)(5)(B) or an act of domestic or international terrorism as defined in 18 U.S.C. 2331.

(iii)(A) If an educational agency or institution initiates legal action against a parent or student, the educational agency or institution may disclose to the court, without a court order or subpoena, the education records of the student that are relevant for the educational agency or institution to proceed with the legal action as plaintiff.

(B) If a parent or eligible student initiates legal action against an educational agency or institution, the educational agency or institution may disclose to the court, without a court order or subpoena, the student's education records that are relevant for the educational agency or institution to defend itself.

(10) The disclosure is in connection with a health or safety emergency, under the conditions described in §99.36.

(11) The disclosure is information the educational agency or institution has designated as "directory information", under the conditions described in §99.37.

(12) The disclosure is to the parent of a student who is not an eligible student or to the student.

(13) The disclosure, subject to the requirements in §99.39, is to a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense. The disclosure may only include the final results of the disciplinary proceeding conducted by the institution of postsecondary education with respect to that alleged crime or offense. The institution may disclose the final results of the disciplinary proceeding, regardless of whether the institution concluded a violation was committed.

(14)(i) The disclosure, subject to the requirements in §99.39, is in connection with a disciplinary proceeding at an institution of postsecondary education. The institution must not disclose the final results of the disciplinary proceeding unless it determines that—

(A) The student is an alleged perpetrator of a crime of violence or non-forcible sex offense; and

(B) With respect to the allegation made against him or her, the student has committed a violation of the institution's rules or policies.

(ii) The institution may not disclose the name of any other student, including a victim or witness, without the prior written consent of the other student.

(iii) This section applies only to disciplinary proceedings in which the final results were reached on or after October 7, 1998.

(15)(i) The disclosure is to a parent of a student at an institution of postsecondary education regarding the student's violation of any Federal, State, or local law, or of any rule or policy of the institution, governing the use or possession of alcohol or a controlled substance if—

(A) The institution determines that the student has committed a disciplinary violation with respect to that use or possession; and

(B) The student is under the age of 21 at the time of the disclosure to the parent.

(ii) Paragraph (a)(15) of this section does not supersede any provision of State law that prohibits an institution of postsecondary education from disclosing information.

(16) The disclosure concerns sex offenders and other individuals required to register under section 170101 of the Violent Crime Control and Law Enforcement Act of 1994, 42 U.S.C. 14071, and the information was provided to the educational agency or institution under 42 U.S.C. 14071 and applicable Federal guidelines.

(b)(1) *De-identified records and information.* An educational agency or institution, or a party that has received education records or information from education records under this part, may release the records or information without the consent required by §99.30 after the removal of all personally identifiable information provided that the educational agency or institution or other party has made a reasonable determination that a student's identity is not personally identifiable, whether through single or multiple releases, and taking into account other reasonably available information.

(2) An educational agency or institution, or a party that has received education records or information from education records under this part, may release de-identified student level data from education records for the purpose of education research by attaching a code to each record that may allow the recipient to match information received from the same source, provided that—

(i) An educational agency or institution or other party that releases de-identified data under paragraph (b)(2) of this section does not disclose any information about how it generates and assigns a record code, or that would allow a recipient to identify a student based on a record code;

(ii) The record code is used for no purpose other than identifying a de-identified record for purposes of education research and cannot be used to ascertain personally identifiable information about a student; and

(iii) The record code is not based on a student's social security number or other personal information.

(c) An educational agency or institution must use reasonable methods to identify and authenticate the identity of parents, students, school officials, and any other parties to whom the agency or institution discloses personally identifiable information from education records.

(d) Paragraphs (a) and (b) of this section do not require an educational agency or institution or any other party to disclose education records or information from education records to any party except for parties under paragraph (a)(12) of this section.

(Authority: 20 U.S.C. 1232g(a)(5)(A), (b), (h), (i), and (j)).

§99.32 What recordkeeping requirements exist concerning requests and disclosures?

(a)(1) An educational agency or institution must maintain a record of each request for access to and each disclosure of personally identifiable information from the education records of each student, as well as the names of State and local educational authorities and Federal officials and agencies listed in §99.31(a)(3) that may make further disclosures of personally identifiable information from the student's education records without consent under §99.33(b).

(2) The agency or institution shall maintain the record with the education records of the student as long as the records are maintained.

(3) For each request or disclosure the record must include:

(i) The parties who have requested or received personally identifiable information from the education records; and

(ii) The legitimate interests the parties had in requesting or obtaining the information.

(4) An educational agency or institution must obtain a copy of the record of further disclosures maintained under paragraph (b)(2) of this section and make it available in response to a parent's or eligible student's request to review the record required under paragraph (a)(1) of this section.

(5) An educational agency or institution must record the following information when it discloses personally identifiable information from education records under the health or safety emergency exception in §99.31(a)(10) and §99.36:

(i) The articulable and significant threat to the health or safety of a student or other individuals that formed the basis for the disclosure; and

(ii) The parties to whom the agency or institution disclosed the information.

(b)(1) Except as provided in paragraph (b)(2) of this section, if an educational agency or institution discloses personally identifiable information from education records with the understanding authorized under §99.33(b), the record of the disclosure required under this section must include:

(i) The names of the additional parties to which the receiving party may disclose the information on behalf of the educational agency or institution; and

(ii) The legitimate interests under §99.31 which each of the additional parties has in requesting or obtaining the information.

(2)(i) A State or local educational authority or Federal official or agency listed in §99.31(a)(3) that makes further disclosures of information from education records under §99.33(b) must record the names of the additional parties to which it discloses information on behalf of an educational agency or institution and their legitimate interests in the information under §99.31 if the information was received from:

(A) An educational agency or institution that has not recorded the further disclosures under paragraph (b)(1) of this section; or

(B) Another State or local educational authority or Federal official or agency listed in §99.31(a)(3).

(ii) A State or local educational authority or Federal official or agency that records further disclosures of information under paragraph (b)(2)(i) of this section may maintain the record by the student's class, school, district, or other appropriate grouping rather than by the name of the student.

(iii) Upon request of an educational agency or institution, a State or local educational authority or Federal official or agency listed in §99.31(a)(3) that maintains a record of further disclosures under paragraph (b)(2)(i) of this section must provide a copy of the record of further disclosures to the educational agency or institution within a reasonable period of time not to exceed 30 days.

(c) The following parties may inspect the record relating to each student:

(1) The parent or eligible student.

(2) The school official or his or her assistants who are responsible for the custody of the records.

(3) Those parties authorized in §99.31(a) (1) and (3) for the purposes of auditing the recordkeeping procedures of the educational agency or institution.

(d) Paragraph (a) of this section does not apply if the request was from, or the disclosure was to:

(1) The parent or eligible student;

(2) A school official under §99.31(a)(1);

(3) A party with written consent from the parent or eligible student;

(4) A party seeking directory information; or

(5) A party seeking or receiving records in accordance with §99.31(a)(9)(ii)(A) through (C).

(Authority: 20 U.S.C. 1232g(b)(1) and (b)(4)(A))

§99.35 What conditions apply to disclosure of information for Federal or State program purposes?

(a)(1) Authorized representatives of the officials or agencies headed by officials listed in §99.31(a)(3) may have access to education records in connection with an audit or evaluation of

Federal or State supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs.

(2) The State or local educational authority or agency headed by an official listed in §99.31(a)(3) is responsible for using reasonable methods to ensure to the greatest extent practicable that any entity or individual designated as its authorized representative—

(i) Uses personally identifiable information only to carry out an audit or evaluation of Federal- or State-supported education programs, or for the enforcement of or compliance with Federal legal requirements related to these programs;

(ii) Protects the personally identifiable information from further disclosures or other uses, except as authorized in paragraph (b)(1) of this section; and

(iii) Destroys the personally identifiable information in accordance with the requirements of paragraphs (b) and (c) of this section.

(3) The State or local educational authority or agency headed by an official listed in §99.31(a)(3) must use a written agreement to designate any authorized representative, other than an employee. The written agreement must—

(i) Designate the individual or entity as an authorized representative;

(ii) Specify—

(A) The personally identifiable information from education records to be disclosed;

(B) That the purpose for which the personally identifiable information from education records is disclosed to the authorized representative is to carry out an audit or evaluation of Federal- or State-supported education programs, or to enforce or to comply with Federal legal requirements that relate to those programs; and

(C) A description of the activity with sufficient specificity to make clear that the work falls within the exception of §99.31(a)(3), including a description of how the personally identifiable information from education records will be used;

(iii) Require the authorized representative to destroy personally identifiable information from education records when the information is no longer needed for the purpose specified;

(iv) Specify the time period in which the information must be destroyed; and

(v) Establish policies and procedures, consistent with the Act and other Federal and State confidentiality and privacy provisions, to protect personally identifiable information from education records from further disclosure (except back to the disclosing entity) and unauthorized use, including limiting use of personally identifiable information from education records to only authorized representatives with legitimate interests in the audit or evaluation of a Federal- or State-supported education program or for compliance or enforcement of Federal legal requirements related to these programs.

(b) Information that is collected under paragraph (a) of this section must—

(1) Be protected in a manner that does not permit personal identification of individuals by anyone other than the State or local educational authority or agency headed by an official listed in §99.31(a)(3) and their authorized representatives, except that the State or local educational authority or agency headed by an official listed in §99.31(a)(3) may make further disclosures of personally identifiable information from education records on behalf of the educational agency or institution in accordance with the requirements of §99.33(b); and

(2) Be destroyed when no longer needed for the purposes listed in paragraph (a) of this section.

(c) Paragraph (b) of this section does not apply if:

(1) The parent or eligible student has given written consent for the disclosure under §99.30; or

(2) The collection of personally identifiable information is specifically authorized by Federal law. (Authority: 20 U.S.C. 1232g(b)(1)(C), (b)(3), and (b)(5))

Transcript Collection—Brochure Text—BPS:12 PETS only

2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS)

The National Center for Education Statistics (NCES), U.S. Department of Education, is conducting the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12), a national study of first time beginning postsecondary students which includes interviews with students, and collection of administrative data, such as from student transcripts. The transcripts will provide analytically powerful data on study participants' postsecondary curricular experience and performance that can shed light on their persistence, attainment, and labor market outcomes. BPS:12 data are collected under the authority of the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. § 9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015) to provide information for use by Congress, researchers, and policymakers to monitor and improve the quality of education. NCES has contracted with RTI International, a nonprofit research organization, to collect the transcript data on its behalf.

BPS is unique as the only nationally-representative study of all students (including nontraditional students who delayed postsecondary entry and those in short-term vocational programs) who began postsecondary education for the first time in the same academic year. BPS follows these students over time to provide a more detailed portrait of these students' experiences than do studies that focus only on a single point in time, a single institution, or on institution-reported data alone. BPS includes three student interviews across a 6-year span, as well as collection of administrative records.

Assistance is needed from institutions to make the results of the BPS study comprehensive, accurate, and timely. We are collecting transcript information for students who are sample members in BPS:12. The information we will collect from the transcript includes dates of enrollment, grade point average, degree program, and, for each course taken, course number and title, number of credits earned, and grade assigned.

Importance of the Data

BPS data are made available to researchers, counselors, policymakers, and others in various ways, each of which is designed to protect individually-identifying information:

- Descriptive reports are published by NCES on selected topics. BPS publications and data can also be accessed electronically through NCES's BPS website: https://nces.ed.gov/surveys/bps/. A bibliography of BPS publications is posted there as well.
- Data files (without identifying information) are available.
- Presentations on study findings are made at conferences.

Researchers from a variety of fields have used the data collected in BPS:12 and its predecessor studies to examine topics related to enrollment, persistence, and degree attainment; undergraduate Stafford loan borrowing; and education tax benefits including the extent to which these benefits shaped students' price of college attendance.

Authorization to Collect Data

The National Center for Education Statistics (NCES), of the United States Department of Education, is authorized to conduct BPS:12 by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. § 9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). BPS:12 data are collected for NCES by RTI International.

Transcript Collection Procedures

All known institutions attended by BPS:12 participants will be contacted beginning in February 2017. The NCES Postsecondary Data Portal (PDP) website (https://surveys.nces.ed.gov/portal) will serve as a secure mechanism for the exchange of information between institutions and RTI. To initiate the transcript submission process, institutions are being asked to complete an information page about their term systems and grading scales, and may be asked to provide course catalogues if they are not available through other public sources. New students may be added to an institution's transcript request list if new enrollment is discovered from collected transcripts.

Transcripts will be requested from an estimated 4,000 institutions attended by BPS:12 sample members. Institutions can submit transcripts for their students using any of several methods (in order of preference): uploading to the NCES Postsecondary Data Portal website, e-mailing the transcripts as an encrypted attachment, sending by secure File Transfer Protocol (sFTP), or faxing to a secure fax machine. Instructions are provided in the packets sent to institutions, and the Help Desk will respond to any questions or problems (1-855-500-1441; PortalHelp@rti.org).

Once received, transcripts will be data-entered, and fields of study and courses will be coded using the 2010 College Course Map[1], a postsecondary coding taxonomy.

Confidentiality

NCES is required to follow strict procedures to protect personal information in the **collection, reporting, and publication of data** and adheres to the guidelines issued by the Office of Management and Budget in the *Federal Statistical Confidentiality Order of 1997* for ensuring protection of data collected for statistical purposes.

The Family Educational Rights and Privacy Act of 1974 (FERPA) (20 U.S.C. § 1232[g]) allows for the release of institution record information to the Secretary of Education or his agent without prior consent of survey members (34 CFR §§ 99.31[a][3] and 99.35). All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be disclosed or used in identifiable form for any other purpose except as required by law (Education Sciences Reform Act of 2002, 20 U.S.C. § 9573). RTI International, as the contractor for NCES, has been given the authority to collect information from institution records under federal law.

Protection of Electronic Files

All electronic files from institution records are carefully protected. Computer accounts used to access data are password protected with multilevel controls to ensure that only those individuals with a need to access personal information are able to do so. For the website, where the list of sample members who attended your institution is located and where you can upload data if that data transmission method is preferred, proven methods of protection for online sessions and data security are used. Data transmitted over the Internet are encrypted using Secure Sockets Layer (SSL) protocol. All modules with sample member identifiers on the study website are password protected, which requires the user to log in to the site before accessing personal information. To prevent unauthorized user access, the system automatically logs the user out after 20 minutes of inactivity.

Protection of Paper Records

All paper records are maintained in locked storage cabinets. A unique study identification variable (not the Social Security number or school ID) is created and maintained for each survey participant to protect against disclosure of personal data.

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[1] Bryan, M. & Simone, S. (2012). *2010 College Course Map* (NCES 2012-162REV). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. Retrieved [date] from https://nces.ed.gov/pubsearch.

Preparation of Data for Public Release

All data released to the general public (for example, statistical tables) will be designed so that it will not be possible to identify individuals.

Violations

All personnel with access to individual data will be required to sign a confidentiality agreement and an affidavit of nondisclosure. Project staff is subject to large fines or imprisonment if individual responses are disclosed.

For assistance with the BPS:12 Postsecondary Education Transcript Study, please contact:

Help Desk
1-855-500-1441 (toll-free)

At RTI International

Tiffany Mattox
Transcript Collection Manager, BPS:12 PETS
1-855-500-1441
PortalHelp@rti.org

Mike Bryan
Director, BPS:12 PETS
1-919-541-7498
mbryan@rti.org

At the National Center for Education Statistics

Sean Simone
Project Officer, BPS:12 PETS
1-202-245-7631
sean.simone@ed.gov

Conducted by
U.S. Department of Education
National Center for Education Statistics
Washington, DC
https://nces.ed.gov

<date>

Transcript Collection—Disclosure Notice—Joint Study Collection

Information from student records for this individual has been provided to RTI International, a data collection agent for the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12), conducted by the National Center of Education Statistics (NCES) within the U.S. Department of Education. This disclosure statement fulfills the requirement of 34 CFR 99.32(a) pursuant to the Family Educational Rights and Privacy Act of 1974 (20 U.S.C. §1232g).

Strict protection of all information obtained for HSLS:09 and BPS:12 is assured by current federal laws and regulations. All of the information provided may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

HSLS:09 OMB # 1850-0852; Expiration Date: 12/31/2018
BPS:12 OMB # 1850-0631; Expiration Date:01/31/2020

Transcript Collection—Fax Test Page to RTI—Joint Study Collection

Student Transcript Fax Test Page

«ProjectCode»

Study ID#: «School_ID»

Name of Sender: _____

Date: _____

Telephone number: _____

Fax number: _____

Instructions:

Please fax this document to <faxnumber> as a test page.

You will receive a confirmation that we received your fax. Once you have our confirmation, please fax the completed Student Transcript Fax Transmittal Sheet that you received in your packet and your students' transcripts to the same number.

If you need assistance, please contact our Fax Helpline at 1-855-500-1441.

Transcript Collection—Fax Transmittal Sheet to RTI –Joint Study Collection

Student Transcript Fax Transmittal Sheet

«ProjectCode»

****WARNING: This transmission contains personal information. Please exercise appropriate security. ****

Study ID#: «School_ID»

Name of Sender: _____

Date: _____

Telephone number: _____

Fax number: _____

Number of pages (including this transmittal sheet): _____

Number of students whose transcripts were requested: «tot_cnt»

Number of students whose transcripts you are sending: _____

Number of transcripts you are sending (there could be multiple per student): _____

Instructions:

Be sure that you have faxed the Student Transcript Fax Test Page and confirmed its receipt before sending this page or the transcripts.

If a student transferred to your institution from another institution, please also send copies of any transcripts that you have from other institutions (unless that information is already included on the transcript from your institution).

Once you have filled out the top of this document, please fax it and student transcripts to <fax number>.

If you need assistance, please contact our Fax Helpline at 1-855-500-1441.

Transcript Collection—Catalog Transmittal Sheet to RTI –Joint Study Collection

Catalog Transmittal Sheet

«ProjectCode»

Study ID#: «School_ID»

Name of Sender: _____

Date: _____

Telephone number: _____

In order to properly code the transcript data we will receive for your students, we need to obtain a copy of your institution's course catalogs, bulletins, or other materials that describe the course offerings for each academic year listed below.

<cat_yr_needed> <level>
<cat_yr_needed> <level>
<cat_yr_needed> <level>
<cat_yr_needed> <level>

Instructions:
If the catalog(s) exist electronically, please send an e-mail to PortalHelp@rti.org and either direct us to the catalog(s) online or send the catalog(s) as an attachment. If you need to send hard copy catalogs, please place check marks in the appropriate columns below to indicate the types of course catalogs you are sending for each year. Please do not send catalogs for which "not needed" appears. Please keep a copy of this completed sheet for your records and send the original to RTI with the catalogs using the FedEx materials provided.

Academic Year	Type of catalog provided *(please place checks or comments as appropriate)*			
	Institution-wide/general	Undergraduate	Graduate	Other school/program *(please specify)*

Transcript Collection—Sample Reminder Email to Registrar or Designee—Joint Study Collection

Dear «salutation» «lname»:

I am writing as a follow-up to the package you should have received recently that included a letter from us about the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript collection, being carried out by RTI International on behalf of the National Center for Education Statistics (NCES), U.S. Department of Education.

The letter requested that you log on to the secure NCES Postsecondary Data Portal (PDP) to provide transcript data for sampled students. The PDP website is located at https://surveys.nces.ed.gov/portal. The data your institution provides are very important to the success of the studies.

If sending to the primary coordinator, fill:
A user ID and password were provided in earlier materials. Please contact the Help Desk if you need assistance logging in.
If sending to other staff, fill:
If you need a user name and password, please contact the Primary Coordinator at your institution, <name>.

If you have any questions about the studies or procedures involved, please contact the Help Desk at 1-855-500-1441, or via e-mail at PortalHelp@rti.org.

Thank you again for your cooperation.

Sincerely,

Daniel Pratt
Director, HSLS:09

Mike Bryan
Director, BPS:12 PETS

OMB Control Numbers: 1850-0852 (HSLS:09) and 1850-0631 (BPS:12)
Learn more about our confidentiality procedures at: https://surveys.nces.ed.gov/portal.

Postsecondary Data Portal Flyer Text

National Center for Education Statistics (NCES)

Postsecondary Data Portal (PDP)

Institutions can now provide data for NCES sample studies[2] easily—at one central location!

What is the Postsecondary Data Portal?

The Postsecondary Data Portal (PDP) is a website that was created with input from institutions like yours!

By taking advantage of the PDP, you can help NCES collect data on students in our sample studies. These data provide much-needed information on vital concerns to students, families, policymakers, and the academic community.

Visit https://nces.ed.gov/surveys/ for more information on these studies.

Key Benefits

- Eliminates the need to visit a separate website for each NCES sample study in which you are asked to participate
- Creates consistency across studies, as all data are collected using the same interface
- Presents frequently asked questions, timelines, confidentiality information, and contact information for each study currently in progress
- Gives valuable information on current studies' objectives and research questions, as well as access to data and publications from previous studies
- Provides easy access to the NCES DataLab, where you can create tables and graphs with data from NCES sample studies

How do I use the PDP?

We will contact you when your institution is in an active data collection and supply you with your PDP username and password.

The PDP Task Menu will list the steps to follow to provide data.

Depending on your institution's capabilities and specific request, you can choose the most convenient way to provide your data.

Visit the PDP website at https://surveys.nces.ed.gov/portal.

For additional questions, you can contact our help desk at 1-855-500-1441 or PortalHelp@rti.org. Help Desk staff are available from 9:00 a.m. to 6:30 p.m. Eastern time, Monday – Friday.

[2] Does not include Integrated Postsecondary Education Data System (IPEDS).

Transcript Contacting Materials – BPS:12 PETS Only

- Letter to registrar or designee from NCES commissioner
- Letter to registrar or designee from RTI
- Letter to registrar or designee from NCES commissioner
- Letter from endorsing organization(s)
- Additional students letter
- Additional student non-respondent letter
- Email Reminder

Transcript Collection—NCES Letter to IR Director or Chief Administrator—BPS:12 PETS only

The text of the letter is also sent in an e-mail.

(date)
(Salutation) (FirstName) (LastName)
(Title)
(Institution)
(Address)
(City), (State) (Zip)

Dear (Salutation) (LastName):

[A student/students] from (Institution) [has/have] been participating in a longitudinal study, the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12), that is being conducted by the National Center for Education Statistics (NCES) with data collection being carried out by RTI International, a nonprofit research organization. BPS:12 collects information on individuals who began their postsecondary education in the 2011-12 academic year, including the students' postsecondary experiences, work while enrolled, persistence in school, degree completion, and employment following enrollment. I am writing to request transcripts for these students from your institution.

The enclosed materials describe our data collection process and provide a summary of the laws and procedures safeguarding the collected data. NCES is authorized to conduct these studies by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). Additional information, including reports based on data from previous rounds of BPS, is available on the NCES website at https://nces.ed.gov/surveys/bps.

We ask that you log in to the secure NCES Postsecondary Data Portal (PDP) website and designate a coordinator for the 2018 institution data collection. The login information is included at the bottom of this letter. Please note that the password is temporary and you will need to create a new one the first time you log in.

If you have any questions about the study or the data collection process, please contact the Help Desk at 1-855-500-1441 or via e-mail at PortalHelp@rti.org. You may also direct questions to Sean Simone, Ph.D. at NCES at 1-202-245-7631 or at Sean.Simone@ed.gov.

We look forward to your participation in this important study. Thank you for your cooperation.

Sincerely,

Christopher Chapman
Associate Commissioner
National Center for Education Statistics

Enclosures

For more information on the data collection and to name a coordinator, please visit:

https://surveys.nces.ed.gov/portal

IR Director user name: (UserName)
Your temporary password: (Password)

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0731). The time required to complete this information collection is estimated to average approximately 1 hour per response, including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving this collection, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—Request Letter from RTI to Registrar or Designee—BPS:12 PETS only

The text of the letter is also sent in an e-mail.

{date}

{contact_fname} {contact_lname}
{inst_name}
{inst_addr1}
{inst_adr2}
{inst_city}, {inst_st} {inst_zip}

Dear {contact_salute} {contact_lname}:

[Fill if same coordinator as BPS:12/HSLS:09 2017 data collection: Our records indicate that you are your institution's coordinator for the 2011–12 Beginning Postsecondary Students Longitudinal Study (BPS:12) student records collection. We want to thank you for your efforts related to that data collection. We are now requesting transcripts for BPS:12 students. This collection is occurring within the same secure Postsecondary Data Portal (PDP) website.] [Fill if not same coordinator: We greatly appreciate your cooperation in the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study.] As Christopher Chapman, Associate Commissioner of the National Center for Education Statistics (NCES), indicates in the enclosed letter, this study is designed to collect transcript data for sample members in BPS:12 that attended your institution. BPS:12 data will help researchers, educators, and policymakers better understand what percentage of beginning students complete their degree programs; the financial, family, and school-related factors that prevent students from completing these programs; and what can be done to help students complete their schooling.

I am writing to request transcripts for {sch_num} sample member{s} who attended your institution. To facilitate our coding of your institution's transcripts, it would be helpful to also receive a mapping of your institution's degree programs and courses to the Classification of Instructional Programs (CIP), if such a mapping exists.

Included with this package are detailed instructions for preparing and transmitting transcript data to RTI. A list of students for whom transcripts are requested is posted at the secure NCES Postsecondary Data Portal (PDP) website listed in the box below. To gain access to the site, you will need to log in using the username and password printed at the bottom of this letter. Also available on the PDP are instructions for obtaining reimbursement for the requested transcripts, should your institution require it. We would appreciate receiving the requested transcript data on or before {DUE DATE}. Please do not hesitate to call me if you feel you need to have a later delivery date.

Thank you in advance for your timely participation in this important effort. Please feel free to contact us for additional information. You can reach us by telephone at 1-855-500-1441 or e-mail at PortalHelp@rti.org.

Sincerely,

Mike Bryan
Director, BPS:12 PETS

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the primary coordinator, fill:
Primary Coordinator user name: «UserName»
Your temporary password: «password»
If mailing to other staff, fill:
Please contact the PDP Primary Coordinator at your institution, <fill name> for login credentials.

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0731). The time required to complete this information collection is estimated to average approximately 1 hour per response, including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving this collection, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—Request Letter from NCES to Registrar or Designee—BPS:12 PETS only

The text of the letter is also sent in an e-mail.

<date>

Dear Registrars and Officials:

«entity_name» has been selected to participate in the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study being conducted by the National Center for Education Statistics (NCES), U.S. Department of Education, with data collection carried out by RTI International. BPS:12 follows beginning postsecondary students over time and collects information on students' postsecondary experiences, work while enrolled, persistence in school, degree completion, and employment following enrollment. As part of this study, NCES is requesting transcripts for sample members who have attended your institution. Linking student transcript data, interview data, and other administrative record information will result in a dataset that researchers can use to better understand the relationship between students' education and their subsequent career paths and graduate/professional study.

For the collection of transcripts for BPS:12, the Family Educational Rights and Privacy Act of 1974 (FERPA) permits educational institutions to disclose personally identifiable information from students' education records, without consent, to authorized representatives of the Secretary of Education (34 CFR §§ 99.31(a)(3) and 99.35). NCES is authorized to conduct this study by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151). The enclosed *Family Educational Rights and Privacy Act Fact Sheet* includes the text of the FERPA requirements, with passages that authorize this transcript data collection highlighted.

Many secure options are available to you for providing transcript data; information on each of the options and instructions are included in this package. Let me assure you that very stringent measures are in place to safeguard participants' information (see "Disclosure Notice" posted on the PDP). Your cooperation with RTI in this important study is greatly appreciated. While we may need to contact you again if there are additional sample members who we learn attended your institution, RTI will make every effort to minimize the burden on your institution for the collection.

For further information or questions, please contact RTI's Help Desk at 1-855-500-1441 or PortalHelp@rti.org. You may also contact Sean Simone at NCES at (202) 245-7631 or Sean.Simone@ed.gov.

Sincerely,

Christopher Chapman
Associate Commissioner
National Center for Education Statistics

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0731). The time required to complete this information collection is estimated to average approximately 1 hour per response, including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving this collection, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—Request Letter from Endorsing Agency to Registrar or Designee—BPS:12 PETS only

Dear Colleague:

I am writing to ask for your assistance with the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study. BPS:12 collects data over time on students who began their postsecondary education in the 2011-12 academic year, including information on students' postsecondary experiences, work while enrolled, persistence in school, degree completion, and following employment. The transcript collection is conducted by the National Center for Education Statistics (NCES) in the U.S. Department of Education's Institute of Education Sciences and is endorsed by [ENDORSING AGENCIES].

BPS:12 postsecondary transcript data will be combined with data from student interviews, other institution records, and administrative databases to provide a total picture of the cohort. The enclosed materials describe the uses of the data.

Transcript data are being collected in compliance with the *Family Educational Rights and Privacy Act of 1974* (FERPA). FERPA (20 U.S.C. §1232[g]) allows for the release of institution record information to the Secretary of Education or his agent without prior consent of survey members (34 CFR §§ 99.31(a)(3) and 99.35). NCES is authorized to conduct these studies by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

Your cooperation and assistance in providing transcripts to RTI in a timely manner will be greatly appreciated.

Sincerely,

[NAME]
[TITLE, ENDORSING AGENCY]

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0731). The time required to complete this information collection is estimated to average approximately 1 hour per response, including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving this collection, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—RTI Letter to Registrar or Designee for Additional Students—BPS:12 PETS only

The text of the letter is also sent in an e-mail.

{date}

{contact_fname} {contact_lname}
{inst_name}
{inst_addr1}
{inst_adr2}
{inst_city}, {inst_st} {inst_zip}

Dear {contact_salute} {contact_lname}:

As you may recall, we contacted you recently to obtain transcripts for students who attended «entity_name» and are sample members in the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study being conducted by the National Center for Education Statistics (NCES) with data collection carried out by RTI International. We want to thank you for your efforts in providing those valuable data. In our previous communications we indicated that we may need to contact you again to request transcripts for additional sample members who we learn attended your institution. I am requesting transcripts for {phase2_num} additional students. [*If only 1 student, then we would say:* I am requesting the transcript for one additional student.]

Included with this package are detailed instructions for preparing and transmitting transcript data to RTI. A list of students for whom transcripts are requested is posted at the secure Postsecondary Data Portal website listed in the box below. You may also wish to discuss obtaining reimbursement for the requested transcripts and can contact RTI with the Help Desk information listed below. **We would appreciate receiving the requested transcript data on or before {DUE DATE}.** Please contact the Help Desk if you feel you need to have a later delivery date. You can contact the Help Desk by telephone at 1-855-500-1441 or e-mail at PortalHelp@rti.org.

Thank you in advance for your timely participation in this important effort.

Sincerely,

Sean Simone, Ph.D.
Project Officer, BPS:12 PETS
National Center for Education Statistics

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the primary coordinator, fill:
If you need assistance with your login credentials, please contact the Help Desk.
If mailing to other staff, fill:
Please contact the PDP Primary Coordinator at your institution,
<fill name> for login credentials.

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0731). The time required to complete this information collection is estimated to average approximately 1 hour per response, including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving this collection, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—RTI Letter to Registrar or Designee for Additional Students Requested of NonRespondent Institutions—BPS:12 PETS only

{date}

{contact_fname} {contact_lname}
{inst_name}
{inst_addr1}
{inst_adr2}
{inst_city}, {inst_st} {inst_zip}

Dear {contact_salute} {contact_lname}:

I am writing to request your participation in the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study for the National Center for Education Statistics (NCES), U.S. Department of Education. We are collecting the undergraduate transcripts of sample members participating in BPS:12. We need transcripts for «totcases» sample members who attended your institution. In order to accommodate competing demands on your time, we can be flexible on the date for submitting the requested data and will reimburse your institution for the cost of preparing the transcripts.

Assurance of confidentiality and legal authority. Transcript data are collected in full compliance with the Family Educational Rights and Privacy Act (FERPA) that allow the release of student records to the Secretary of Education or his or her agent without prior written consent from students. Stringent safeguards are in place to protect student confidentiality. NCES is authorized to conduct these studies by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

Value of the data. Transcript data will be combined with study participants' interview data and other administrative records collected for them to create a rich longitudinal dataset. Your provision of the requested transcript data maximizes the time and effort students have already invested through their participation in the longitudinal study.

Instructions for participating. Enclosed are instructions for preparing and transmitting transcript data through the secure NCES Postsecondary Data Portal (PDP), as well as a brochure with additional information about the transcript collection and BPS:12. A list of students for whom transcripts are requested can be found at the secure study website: https://surveys.nces.ed.gov/portal. The PDP also provides instructions for obtaining reimbursement. If you have questions about how to prepare and send transcript data, please contact the Help Desk at 1-855-500-1441 (toll free).

I would appreciate your sending us the requested transcript data by «due_date», but please call (1-855-500-1441) or e-mail (PortalHelp@rti.org) if you need to adjust your delivery date. Thank you for your cooperation in this important data collection.

Sincerely,

Mike Bryan
Director, BPS:12 PETS
RTI International

Please log in to the Postsecondary Data Portal website at:

https://surveys.nces.ed.gov/portal

If mailing to the primary coordinator, fill:
If you need assistance with your login credentials, please contact the Help Desk.
If mailing to other staff, fill:
Please contact the PDP Primary Coordinator at your institution, <fill name> for login credentials.

NCES is authorized to conduct the High School Longitudinal Study of 2009 (HSLS:09) and the 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) by the Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9543) and the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015). The data are being collected for NCES by RTI International, a U.S.-based nonprofit research organization. All of the information you provide may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (20 U.S.C. §9573 and 6 U.S.C. §151).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this voluntary information collection is 1850-0731). The time required to complete this information collection is estimated to average approximately 1 hour per response, including the time to review instructions, search existing data sources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate, suggestions for improving this collection, or any comments or concerns regarding the status of your individual submission, please write directly to: Postsecondary Data Portal Studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

Transcript Collection—Sample Reminder E-mail to Registrar or Designee—BPS:12 PETS only

Dear «salutation» «lname»:

I am writing as a follow-up to the package you should have received recently that included a letter about the 2012 Beginning Postsecondary Students Longitudinal Study Postsecondary Education Transcript Study (BPS:12 PETS), being conducted by the National Center for Education Statistics (NCES), U.S. Department of Education, with data collection being carried out by RTI International.

The letter requested that you log on to the secure NCES Postsecondary Data Portal (PDP) to provide transcript data for sampled students. The PDP website is located at https://surveys.nces.ed.gov/portal. The data your institution provides are very important to the success of the studies.

If sending to the primary coordinator, fill:

A user ID and password were provided in earlier materials. Please contact the Help Desk if you need assistance logging in.

If sending to other staff, fill:

If you need a user name and password, please contact the Primary Coordinator at your institution, <name>.

If you have any questions about the study or procedures involved, please contact the Help Desk at 1-855-500-1441, or via e-mail at PortalHelp@rti.org.

Thank you again for your cooperation.

Sincerely,

Mike Bryan
Director, BPS:12 PETS

OMB Control Number: 1850-0631
Learn more about our confidentiality procedures at: https://surveys.nces.ed.gov/portal.

Appendix D. Transcript Data Elements Keyed, Coded, or Both

School Info

- School uses credit hours, clock hours, or both
- Calendar system
- GPA scale
- Grading system
- Minimum credits for full-time status

Student Info

- First name
- Middle name
- Last name
- Former last name
- DOB (mm/dd/yyyy)
- SSN
- Address 1
- Address 2
- City
- State/Province
- Country (if not USA)
- Zip
- High school graduation date (mm/yyyy)

Schools and Terms

- Transcript GPA
- Total credit/clock hours earned
- Schools attended:
  - Name
  - City
  - State
  - Unknown school
- Terms enrolled:
  - Name
  - Start date (mm/yyyy)
  - End date (mm/yyyy)
  - Attribute

Tests

- Name
- Date taken (mm/yyyy)
- Scores

Degrees and Majors

- Degree program
- Degree name
- Honors
- Degree received
- Date received (mm/yyyy)
- Professional certificate or licensure earned
- Honors program participant
- Honor society
- Major 1 name
- Major 1 Classification of Instructional Programs (CIP) code
- Major 1 uncodeable reason
- Major 2 name
- Major 2 CIP code
- Major 2 uncodeable reason
- Minor 1 name
- Minor 1 CIP code
- Minor 1 uncodeable reason
- Minor 2 name
- Minor 2 CIP code
- Minor 2 uncodeable reason
- Concentration name
- Concentration CIP code
- Concentration uncodeable reason

Courses

- Course ID
- Course name
- College Course Map (CCM) code
- Uncodeable reason
- Grade (letter, numeric, or other)
- Credit type
- Attributes
- Credit hours earned
- Credit hours potential
- Clock hours earned
- Clock hours potential
- Term in which course was taken
- Term honors

Appendix E. Analysis Variables

Table E-1. Analysis Variables: 2012–17

Variable name	Subject	Variable label
ID	Survey sample	Student ID number
QTTRANRESP	Transcript	Transcript: Transcript response status
QTCOVERAGE	Transcript	Transcript: Overall transcript coverage indicator
QTREQTRANS	Transcript	Transcript: Total transcripts requested
QTRECTRANS	Transcript	Transcript: Number of transcripts received
QTSCHTOTAL	Transcript: Enrollment	Transcript: Total known institutions attended
QTHSGRADMY	Transcript: Enrollment	Transcript: High school graduation date
QTPS1START	Transcript: Enrollment	Transcript: Date of first known postsecondary attendance after high school completion
QTHS2PS1	Transcript: Enrollment	Transcript: Number of months between high school exit and postsecondary entry
QTENROLLST	Transcript: Enrollment	Transcript: Month-by-month known enrollment indicator string (January 2011–June 2017)
QTENROLL1112	Transcript: Enrollment	Transcript: Month-by-month known enrollment indicator string for 2011–12 academic year (July 2011–June 2012)
QTENROLL1213	Transcript: Enrollment	Transcript: Month-by-month known enrollment indicator string for 2012–13 academic year (July 2012–June 2013)
QTENROLL1314	Transcript: Enrollment	Transcript: Month-by-month known enrollment indicator string for 2013–14 academic year (July 2013–June 2014)
QTENROLL1415	Transcript: Enrollment	Transcript: Month-by-month known enrollment indicator string for 2014–15 academic year (July 2014–June 2015)
QTENROLL1516	Transcript: Enrollment	Transcript: Month-by-month known enrollment indicator string for 2015–16 academic year (July 2015–June 2016)
QTENROLL1617	Transcript: Enrollment	Transcript: Month-by-month known enrollment indicator string for 2016–17 academic year (July 2016–June 2017)
QTMONENROL	Transcript: Courses	Transcript: Total known months undergraduate enrollment
QTOVRLAP	Transcript: Enrollment	Transcript: Co-enrollment at two or more undergraduate institutions
QTPS1SEC	Transcript: Enrollment by Institution	Transcript: Sector of first known postsecondary institution
QTPS1LEV	Transcript: Enrollment by Institution	Transcript: Level of first known postsecondary institution
QTPS1SLC	Transcript: Enrollment by Institution	Transcript: Institutional selectivity of first known postsecondary institution
QTPS1INSTCAT2	Transcript: Enrollment by Institution	Transcript: Institutional category and control of first known postsecondary institution
QTLASTENR17	Transcript: Enrollment	Transcript: Spring 2017 enrollment
QTENRATT	Transcript: Enrollment	Transcript: Combined known enrollment and attainment as of June 2017
QTSTOPGT4M	Transcript: Enrollment	Transcript: Count of stopouts longer than 4 months
QT1STSTP	Transcript: Enrollment	Transcript: Length of first stopout
QT2STSTP	Transcript: Enrollment	Transcript: Length of second stopout
QT1STCRED	Transcript: Awards	Transcript: First known undergraduate credential received
QTNUMCRED	Transcript: Awards	Transcript: Total number of known undergraduate certificates/diplomas/degrees received

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
QTCERTCRED	Transcript: Awards	Transcript: Total number of known undergraduate certificates/diplomas received
QTPS2CERT1	Transcript: Awards	Transcript: Number of months between known postsecondary start and first undergraduate certificate or diploma
QTCERT1DT	Transcript: Awards	Transcript: Date of first known undergraduate certificate/diploma
QTCERT1IPEDS	Transcript: Institution	Transcript: IPEDS ID of first known undergraduate certificate/diploma
QTCERTLTDT	Transcript: Awards	Transcript: Date of most recent known undergraduate certificate/diploma
QTCERTLTIPEDS	Transcript: Institution	Transcript: IPEDS ID of most recent known undergraduate certificate/diploma
QTASSOCCRED	Transcript: Awards	Transcript: Total number of known associate's degrees received
QTASOC1DT	Transcript: Awards	Transcript: Date of first known associate's degree received
QTASOC1IPEDS	Transcript: Institution	Transcript: IPEDS ID of first known associate's degree received
QTPS2ASOC1	Transcript: Awards	Transcript: Number of months between known postsecondary start and first associate's degree
QTASOCLTDT	Transcript: Awards	Transcript: Date of most recent known associate's degree received
QTASOCLTIPEDS	Transcript: Institution	Transcript: IPEDS ID of most recent known associate's degree received
QTBACCRED	Transcript: Awards	Transcript: Total number of known bachelor's degrees received
QTPS2BACC1	Transcript: Awards	Transcript: Number of months between known postsecondary start and first bachelor's degree
QTBACH1DT	Transcript: Awards	Transcript: Date of first known bachelor's degree received
QTBACC1IPEDS	Transcript: Institution	Transcript: IPEDS ID of first known bachelor's degree received
QTBACHLTDT	Transcript: Awards	Transcript: Date of most recent known bachelor's degree received
QTBACCLTIPEDS	Transcript: Institution	Transcript: IPEDS ID of most recent known bachelor's degree received
QTHIGHDEG	Transcript: Awards	Transcript: Highest degree obtained as of June 2017
QTHIGHDATE	Transcript: Awards	Transcript: Date of highest degree obtained as of June 2017
QTHIGHCIP	Transcript: Awards	Transcript: Six-digit CIP code of highest degree obtained as of June 2017
QTHIGH23MAJ	Transcript: Awards	Transcript: 23-category major of highest known degree obtained as of June 2017
QTHIGH11MAJ	Transcript: Awards	Transcript: 11-category major of highest known degree obtained as of June 2017
QTHIGH10MAJ	Transcript: Awards	Transcript: 10-category major of highest known degree obtained as of June 2017
QTCTECERT	Transcript: Awards	Transcript: Any known undergraduate certificate/diploma received in CTE field
QTCTEASOC	Transcript: Awards	Transcript: Any known associate's degree received in CTE field
QTCTEBACC	Transcript: Awards	Transcript: Any known bachelor's degree received in CTE field

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
QTCTEMIN	Transcript: Awards	Transcript: Any known minor for bachelor's degree received in CTE field
QTSTEM1CRED	Transcript: Awards	Transcript: Any known undergraduate degree received in STEM field (using the SMART Grant definition of STEM)
QTSTEM2CRED	Transcript: Awards	Transcript: Any known undergraduate degree received in STEM field (using the NSF definition of STEM)
QTSTEM3CRED	Transcript: Awards	Transcript: Any known undergraduate degree received in STEM field (using the NCES definition of STEM)
QTSTEM3CERT	Transcript: Awards	Transcript: Any known undergraduate certificate/diploma received in STEM field (using the NCES definition of STEM)
QTSTEM3ASOC	Transcript: Awards	Transcript: Any known associate's degree received in STEM field (using the NCES definition of STEM)
QTSTEM3BACC	Transcript: Awards	Transcript: Any known bachelor's degree received in STEM field (using the NCES definition of STEM)
QTSTEM3MIN	Transcript: Awards	Transcript: Any known minor in STEM field (using the NCES definition of STEM) if bachelor's degree received
QTPS2AWD1	Transcript: Awards	Transcript: Elapsed time from known entry to first undergraduate credential
QTPS2AWD1NG	Transcript: Awards	Transcript: Elapsed time from known entry to first undergraduate credential (no gaps)
QTPS2HIAWD1	Transcript: Awards	Transcript: Elapsed time from known entry to highest degree attained
QTPS2HIAWD1NG	Transcript: Awards	Transcript: Elapsed time from known entry to highest degree attained (no gaps)
QTTOTCOURSE	Transcript: Credits Attempted by Subject Area	Transcript: Total number of known undergraduate courses attempted
QTPOSTATT	Transcript: Credits Attempted by Timeframe	Transcript: Postsecondary career: known credits attempted
QTPOSTERN	Transcript: Credits Earned by Timeframe	Transcript: Postsecondary career: known credits earned
QTGPAALL	Transcript: GPA by Timeframe	Transcript: GPA at all known institutions attended
QTTOTEDERN	Transcript: Credits Earned by Timeframe	Transcript: Postsecondary career (excluding dual enrollment): known credits earned
QTNUMCRSFA	Transcript: Withdrawals/Repeats	Transcript: Number of known courses failed
QTNUMCRSWD	Transcript: Withdrawals/Repeats	Transcript: Number of known courses with withdrawals
QTRATCRSWD	Transcript: Withdrawals/Repeats	Transcript: Ratio of withdrawals to all courses
QTEVERDUAL	Transcript: Courses credit source	Transcript: Any known dual-enrollment credit received
QTEVERAPCRD	Transcript: Courses credit source	Transcript: Any known AP credit received
QTEVERCLEP	Transcript: Courses credit source	Transcript: Any known CLEP credit received
QTEVEREXMCRD	Transcript: Courses credit source	Transcript: Any known exam credit received
QTEVERIBCRD	Transcript: Courses credit source	Transcript: Any known IB credit received
QTEVERMILCRD	Transcript: Courses credit source	Transcript: Any known military credit received
QTEVERWKCRD	Transcript: Courses credit source	Transcript: Any work credit received
QTEVERNCCRD	Transcript: Courses credit source	Transcript: Any known other noncourse credit received

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
QTYR1ATT	Transcript: Credits Attempted by Timeframe	Transcript: First-year enrollment: known credits attempted
QTYR1ERN	Transcript: Credits Earned by Timeframe	Transcript: First-year enrollment: known credits earned
QTYR1GPA	Transcript: GPA by Timeframe	Transcript: First-year enrollment: GPA
QTYR2ENROLL	Transcript: Courses	Transcript: Enrolled in second 12 months
QTYR2ATT	Transcript: Credits Attempted by Timeframe	Transcript: Second-year enrollment: known credits attempted
QTYR2ERN	Transcript: Credits Earned by Timeframe	Transcript: Second-year enrollment: known credits earned
QTYR2GPA	Transcript: GPA by Timeframe	Transcript: Second-year enrollment: GPA
QTYR3ENROLL	Transcript: Courses	Transcript: Enrolled in third 12 months
QTYR4ENROLL	Transcript: Courses	Transcript: Enrolled in fourth 12 months
QTYR5ENROLL	Transcript: Courses	Transcript: Enrolled in fifth 12 months
QTYR6ENROLL	Transcript: Courses	Transcript: Enrolled in sixth 12 months
QTST1YR1ENROLL	Transcript: Courses	Transcript: First-year STEM enrollment (using SMART Grant STEM definition): enrolled
QTST2YR1ENROLL	Transcript: Courses	Transcript: First-year STEM enrollment (using NSF STEM definition): enrolled
QTST3YR1ENROLL	Transcript: Courses	Transcript: First-year STEM enrollment (using NCES STEM definition): enrolled
QTST3YR1ATT	Transcript: Credits Attempted by Timeframe	Transcript: First-year STEM enrollment (using NCES STEM definition): known credits attempted
QTST3YR1ERN	Transcript: Credits Earned by Timeframe	Transcript: First-year STEM enrollment (using NCES STEM definition): known credits earned
QTST3YR1GPA	Transcript: GPA by Timeframe	Transcript: First-year STEM enrollment (using NCES STEM definition): GPA
QTAY1112ATT	Transcript: Credits Attempted by Timeframe	Transcript: Academic year 2011–12: known credits attempted
QTAY1112ERN	Transcript: Credits Earned by Timeframe	Transcript: Academic year 2011–12: known credits earned
QTAY1112GPA	Transcript: GPA by Timeframe	Transcript: Academic year 2011–12: GPA
QTAY1213ENROLL	Transcript: Courses	Transcript: Academic year 2012–13: enrolled
QTAY1213ATT	Transcript: Credits Attempted by Timeframe	Transcript: Academic year 2012–13: known credits attempted
QTAY1213ERN	Transcript: Credits Earned by Timeframe	Transcript: Academic year 2012–13: known credits earned
QTAY1314ENROLL	Transcript: Courses	Transcript: Academic year 2013–14: enrolled
QTAY1415ENROLL	Transcript: Courses	Transcript: Academic year 2014–15: enrolled
QTAY1516ENROLL	Transcript: Courses	Transcript: Academic year 2015–16: enrolled
QTAY1617ENROLL	Transcript: Courses	Transcript: Academic year 2016–17: enrolled
QTSUMENROLL	Transcript: Courses	Transcript: Summer terms: enrolled

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
QTSUMATT	Transcript: Credits Attempted by Timeframe	Transcript: Summer terms: known credits attempted
QTSUMERN	Transcript: Credits Earned by Timeframe	Transcript: Summer terms: known credits earned
QTSUM11ENROLL	Transcript: Courses	Transcript: Summer 2011: enrolled
QTSUM11ATT	Transcript: Credits Attempted by Timeframe	Transcript: Summer 2011: known credits attempted
QTSUM11ERN	Transcript: Credits Earned by Timeframe	Transcript: Summer 2011: known credits earned
QTSUM12ENROLL	Transcript: Courses	Transcript: Summer 2012: enrolled
QTSUM12ATT	Transcript: Credits Attempted by Timeframe	Transcript: Summer 2012: known credits attempted
QTSUM12ERN	Transcript: Credits Earned by Timeframe	Transcript: Summer 2012: known credits earned
QTSUM1112ENROLL	Transcript: Courses	Transcript: Summer 2011 and summer 2012 enrollment
QTSUM1112ATT	Transcript: Credits Attempted by Timeframe	Transcript: Summer 2011 and summer 2012: known credits attempted
QTSUM1112ERN	Transcript: Credits Earned by Timeframe	Transcript: Summer 2011 and summer 2012: known credits earned
QTSUM13ENROLL	Transcript: Courses	Transcript: Summer 2013: enrolled
QTSUM13ATT	Transcript: Credits attempted by timeframe	Transcript: Summer 2013: known credits attempted
QTSUM13ERN	Transcript: Credits earned by timeframe	Transcript: Summer 2013: known credits earned
QTIPEDS1STSC	Transcript: Institution	Transcript: First known institution attended: IPEDS ID
QTATT1STSC	Transcript: Credits attempted by institution	Transcript: First known institution attended: known credits attempted
QTERN1STSC	Transcript: Credits earned by institution	Transcript: First known institution attended: known credits earned
QTGPA1STSC	Transcript: GPA by institution	Transcript: First known institution attended: GPA
QTIPEDSLSC	Transcript: Institution	Transcript: Last known institution attended: IPEDS ID
QTATTLSC	Transcript: Credits attempted by institution	Transcript: Last known institution attended: known credits attempted
QTERNLSC	Transcript: Credits earned by institution	Transcript: Last known institution attended: known credits earned
QTGPALSC	Transcript: GPA by institution	Transcript: Last known institution attended: GPA
QTIPEDSHDEG	Transcript: Institution	Transcript: Highest known degree institution: IPEDS ID
QTATTHDEG	Transcript: Credits attempted by institution	Transcript: Highest known degree institution: known credits attempted
QTERNHDEG	Transcript: Credits earned by institution	Transcript: Highest known degree institution: known credits earned
QTPUB2ENROLL	Transcript: Courses	Transcript: Public 2-year institutions: enrolled
QTPUB2ATT	Transcript: Credits attempted by institution	Transcript: Public 2-year institutions: known credits attempted

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
QTPUB2ERN	Transcript: Credits earned by institution	Transcript: Public 2-year institutions: known credits earned
QTPFPENROLL	Transcript: Courses	Transcript: Private, for-profit institutions: enrolled
QTPFPATT	Transcript: Credits attempted by institution	Transcript: Private, for-profit institutions: known credits attempted
QTPFPERN	Transcript: Credits earned by institution	Transcript: Private, for-profit institutions: known credits earned
QTSTEM3ENROLL	Transcript: Courses	Transcript: STEM (using NCES definition of STEM): enrolled
QTSTEM3ATT	Transcript: Credits attempted by subject area	Transcript: STEM (using NCES definition of STEM): known credits attempted
QTSTEM3ERN	Transcript: Credits earned by subject area	Transcript: STEM (using NCES definition of STEM): known credits earned
QTSTEM3GPA	Transcript: GPA by subject area	Transcript: STEM (using NCES definition of STEM): GPA
QTHLTENROLL	Transcript: Courses	Transcript: Allied health: enrolled
QTHLTATT	Transcript: Credits attempted by subject area	Transcript: Allied health: known credits attempted
QTHLTERN	Transcript: Credits earned by subject area	Transcript: Allied health: known credits earned
QTCSCENROLL	Transcript: Courses	Transcript: All computer science: enrolled
QTCSCATT	Transcript: Credits attempted by subject area	Transcript: All computer science: known credits attempted
QTCSCERN	Transcript: Credits earned by subject area	Transcript: All computer science: known credits earned
QTENGRENROLL	Transcript: Courses	Transcript: All engineering: enrolled
QTENGRATT	Transcript: Credits attempted by subject area	Transcript: All engineering: known credits attempted
QTENGRERN	Transcript: Credits earned by subject area	Transcript: All engineering: known credits earned
QTHUMENROLL	Transcript: Courses	Transcript: All humanities: enrolled
QTHUMATT	Transcript: Credits attempted by subject area	Transcript: All humanities: known credits attempted
QTHUMERN	Transcript: Credits earned by subject area	Transcript: All humanities: known credits earned
QTSSCENROLL	Transcript: Courses	Transcript: All social science: enrolled
QTSSCATT	Transcript: Credits attempted by subject area	Transcript: All social science: known credits attempted
QTSSCERN	Transcript: Credits earned by subject area	Transcript: All social science: known credits earned
QTSTATENROLL	Transcript: Courses	Transcript: Statistics courses in all departments: enrolled
QTSTATATT	Transcript: Credits attempted by subject area	Transcript: Statistics courses in all departments: known credits attempted
QTSTATERN	Transcript: Credits earned by subject area	Transcript: Statistics courses in all departments: known credits earned
QTBUSENROLL	Transcript: Courses	Transcript: Business: enrolled

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
QTBUSATT	Transcript: Credits attempted by subject area	Transcript: Business: known credits attempted
QTBUSERN	Transcript: Credits earned by subject area	Transcript: Business: known credits earned
QTCTEENROLL	Transcript: Courses	Transcript: Career and technical education (CTE): enrolled
QTCTEATT	Transcript: Credits attempted by subject area	Transcript: Career and technical education (CTE): known credits attempted
QTCTEERN	Transcript: Credits earned by subject area	Transcript: Career and technical education (CTE): known credits earned
QTCTEGPA	Transcript: GPA by subject area	Transcript: Career and technical education (CTE): GPA
QTFLENROLL	Transcript: Courses	Transcript: Foreign language: enrolled
QTFLATT	Transcript: Credits attempted by subject area	Transcript: Foreign language: known credits attempted
QTFLERN	Transcript: Credits earned by subject area	Transcript: Foreign language: known credits earned
QTNRSENROLL	Transcript: Courses	Transcript: Nursing: enrolled
QTNRSATT	Transcript: Credits attempted by subject area	Transcript: Nursing: known credits attempted
QTNRSERN	Transcript: Credits earned by subject area	Transcript: Nursing: known credits earned
QTREMENROLL	Transcript: Remedial or ESL	Transcript: Remedial courses: enrolled
QTREMTOT	Transcript: Remedial or ESL	Transcript: Remedial courses: known number taken
QTREMPASS	Transcript: Remedial or ESL	Transcript: Remedial courses: known number passed
QTREMENENROLL	Transcript: Remedial or ESL	Transcript: Remedial English courses: enrolled
QTREMENTOT	Transcript: Remedial or ESL	Transcript: Remedial English courses: known number taken
QTREMENGPS	Transcript: Remedial or ESL	Transcript: Remedial English courses: known number passed
QTREMMTENROLL	Transcript: Remedial or ESL	Transcript: Remedial mathematics courses: enrolled
QTREMMTTOT	Transcript: Remedial or ESL	Transcript: Remedial mathematics courses: known number taken
QTREMMTHPS	Transcript: Remedial or ESL	Transcript: Remedial mathematics courses: known number passed
QTEVTRANSFER	Transcript: Transfer	Transcript: Ever known transfer
QTFTORIGIPEDS	Transcript: Transfer	Transcript: First transfer: IPEDS ID of origin institution
QTFTDESTIPEDS	Transcript: Transfer	Transcript: First transfer: IPEDS ID of destination institution
QTFTORIGMY	Transcript: Transfer	Transcript: First transfer: Last date of enrollment at origin institution
QTFTDESTMY	Transcript: Transfer	Transcript: First transfer: First date of enrollment at destination institution
QTFTORIGERN	Transcript: Transfer	Transcript: First transfer: Total credits earned at origin institution
QTFTDESTTRAN	Transcript: Transfer	Transcript: First transfer: Total credits transferred from the origin institution to the destination institution
WTC000	Survey weights	Postsecondary transcript student analytic weight
WTC001	Survey weights	WTC000 BRR weight for replicate 1

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTC002	Survey weights	WTC000 BRR weight for replicate 2
WTC003	Survey weights	WTC000 BRR weight for replicate 3
WTC004	Survey weights	WTC000 BRR weight for replicate 4
WTC005	Survey weights	WTC000 BRR weight for replicate 5
WTC006	Survey weights	WTC000 BRR weight for replicate 6
WTC007	Survey weights	WTC000 BRR weight for replicate 7
WTC008	Survey weights	WTC000 BRR weight for replicate 8
WTC009	Survey weights	WTC000 BRR weight for replicate 9
WTC010	Survey weights	WTC000 BRR weight for replicate 10
WTC011	Survey weights	WTC000 BRR weight for replicate 11
WTC012	Survey weights	WTC000 BRR weight for replicate 12
WTC013	Survey weights	WTC000 BRR weight for replicate 13
WTC014	Survey weights	WTC000 BRR weight for replicate 14
WTC015	Survey weights	WTC000 BRR weight for replicate 15
WTC016	Survey weights	WTC000 BRR weight for replicate 16
WTC017	Survey weights	WTC000 BRR weight for replicate 17
WTC018	Survey weights	WTC000 BRR weight for replicate 18
WTC019	Survey weights	WTC000 BRR weight for replicate 19
WTC020	Survey weights	WTC000 BRR weight for replicate 20
WTC021	Survey weights	WTC000 BRR weight for replicate 21
WTC022	Survey weights	WTC000 BRR weight for replicate 22
WTC023	Survey weights	WTC000 BRR weight for replicate 23
WTC024	Survey weights	WTC000 BRR weight for replicate 24
WTC025	Survey weights	WTC000 BRR weight for replicate 25
WTC026	Survey weights	WTC000 BRR weight for replicate 26
WTC027	Survey weights	WTC000 BRR weight for replicate 27
WTC028	Survey weights	WTC000 BRR weight for replicate 28
WTC029	Survey weights	WTC000 BRR weight for replicate 29
WTC030	Survey weights	WTC000 BRR weight for replicate 30
WTC031	Survey weights	WTC000 BRR weight for replicate 31
WTC032	Survey weights	WTC000 BRR weight for replicate 32
WTC033	Survey weights	WTC000 BRR weight for replicate 33
WTC034	Survey weights	WTC000 BRR weight for replicate 34
WTC035	Survey weights	WTC000 BRR weight for replicate 35
WTC036	Survey weights	WTC000 BRR weight for replicate 36
WTC037	Survey weights	WTC000 BRR weight for replicate 37
WTC038	Survey weights	WTC000 BRR weight for replicate 38
WTC039	Survey weights	WTC000 BRR weight for replicate 39

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTC040	Survey weights	WTC000 BRR weight for replicate 40
WTC041	Survey weights	WTC000 BRR weight for replicate 41
WTC042	Survey weights	WTC000 BRR weight for replicate 42
WTC043	Survey weights	WTC000 BRR weight for replicate 43
WTC044	Survey weights	WTC000 BRR weight for replicate 44
WTC045	Survey weights	WTC000 BRR weight for replicate 45
WTC046	Survey weights	WTC000 BRR weight for replicate 46
WTC047	Survey weights	WTC000 BRR weight for replicate 47
WTC048	Survey weights	WTC000 BRR weight for replicate 48
WTC049	Survey weights	WTC000 BRR weight for replicate 49
WTC050	Survey weights	WTC000 BRR weight for replicate 50
WTC051	Survey weights	WTC000 BRR weight for replicate 51
WTC052	Survey weights	WTC000 BRR weight for replicate 52
WTC053	Survey weights	WTC000 BRR weight for replicate 53
WTC054	Survey weights	WTC000 BRR weight for replicate 54
WTC055	Survey weights	WTC000 BRR weight for replicate 55
WTC056	Survey weights	WTC000 BRR weight for replicate 56
WTC057	Survey weights	WTC000 BRR weight for replicate 57
WTC058	Survey weights	WTC000 BRR weight for replicate 58
WTC059	Survey weights	WTC000 BRR weight for replicate 59
WTC060	Survey weights	WTC000 BRR weight for replicate 60
WTC061	Survey weights	WTC000 BRR weight for replicate 61
WTC062	Survey weights	WTC000 BRR weight for replicate 62
WTC063	Survey weights	WTC000 BRR weight for replicate 63
WTC064	Survey weights	WTC000 BRR weight for replicate 64
WTC065	Survey weights	WTC000 BRR weight for replicate 65
WTC066	Survey weights	WTC000 BRR weight for replicate 66
WTC067	Survey weights	WTC000 BRR weight for replicate 67
WTC068	Survey weights	WTC000 BRR weight for replicate 68
WTC069	Survey weights	WTC000 BRR weight for replicate 69
WTC070	Survey weights	WTC000 BRR weight for replicate 70
WTC071	Survey weights	WTC000 BRR weight for replicate 71
WTC072	Survey weights	WTC000 BRR weight for replicate 72
WTC073	Survey weights	WTC000 BRR weight for replicate 73
WTC074	Survey weights	WTC000 BRR weight for replicate 74
WTC075	Survey weights	WTC000 BRR weight for replicate 75
WTC076	Survey weights	WTC000 BRR weight for replicate 76
WTC077	Survey weights	WTC000 BRR weight for replicate 77

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTC078	Survey weights	WTC000 BRR weight for replicate 78
WTC079	Survey weights	WTC000 BRR weight for replicate 79
WTC080	Survey weights	WTC000 BRR weight for replicate 80
WTC081	Survey weights	WTC000 BRR weight for replicate 81
WTC082	Survey weights	WTC000 BRR weight for replicate 82
WTC083	Survey weights	WTC000 BRR weight for replicate 83
WTC084	Survey weights	WTC000 BRR weight for replicate 84
WTC085	Survey weights	WTC000 BRR weight for replicate 85
WTC086	Survey weights	WTC000 BRR weight for replicate 86
WTC087	Survey weights	WTC000 BRR weight for replicate 87
WTC088	Survey weights	WTC000 BRR weight for replicate 88
WTC089	Survey weights	WTC000 BRR weight for replicate 89
WTC090	Survey weights	WTC000 BRR weight for replicate 90
WTC091	Survey weights	WTC000 BRR weight for replicate 91
WTC092	Survey weights	WTC000 BRR weight for replicate 92
WTC093	Survey weights	WTC000 BRR weight for replicate 93
WTC094	Survey weights	WTC000 BRR weight for replicate 94
WTC095	Survey weights	WTC000 BRR weight for replicate 95
WTC096	Survey weights	WTC000 BRR weight for replicate 96
WTC097	Survey weights	WTC000 BRR weight for replicate 97
WTC098	Survey weights	WTC000 BRR weight for replicate 98
WTC099	Survey weights	WTC000 BRR weight for replicate 99
WTC100	Survey weights	WTC000 BRR weight for replicate 100
WTC101	Survey weights	WTC000 BRR weight for replicate 101
WTC102	Survey weights	WTC000 BRR weight for replicate 102
WTC103	Survey weights	WTC000 BRR weight for replicate 103
WTC104	Survey weights	WTC000 BRR weight for replicate 104
WTC105	Survey weights	WTC000 BRR weight for replicate 105
WTC106	Survey weights	WTC000 BRR weight for replicate 106
WTC107	Survey weights	WTC000 BRR weight for replicate 107
WTC108	Survey weights	WTC000 BRR weight for replicate 108
WTC109	Survey weights	WTC000 BRR weight for replicate 109
WTC110	Survey weights	WTC000 BRR weight for replicate 110
WTC111	Survey weights	WTC000 BRR weight for replicate 111
WTC112	Survey weights	WTC000 BRR weight for replicate 112
WTC113	Survey weights	WTC000 BRR weight for replicate 113
WTC114	Survey weights	WTC000 BRR weight for replicate 114
WTC115	Survey weights	WTC000 BRR weight for replicate 115

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTC116	Survey weights	WTC000 BRR weight for replicate 116
WTC117	Survey weights	WTC000 BRR weight for replicate 117
WTC118	Survey weights	WTC000 BRR weight for replicate 118
WTC119	Survey weights	WTC000 BRR weight for replicate 119
WTC120	Survey weights	WTC000 BRR weight for replicate 120
WTC121	Survey weights	WTC000 BRR weight for replicate 121
WTC122	Survey weights	WTC000 BRR weight for replicate 122
WTC123	Survey weights	WTC000 BRR weight for replicate 123
WTC124	Survey weights	WTC000 BRR weight for replicate 124
WTC125	Survey weights	WTC000 BRR weight for replicate 125
WTC126	Survey weights	WTC000 BRR weight for replicate 126
WTC127	Survey weights	WTC000 BRR weight for replicate 127
WTC128	Survey weights	WTC000 BRR weight for replicate 128
WTC129	Survey weights	WTC000 BRR weight for replicate 129
WTC130	Survey weights	WTC000 BRR weight for replicate 130
WTC131	Survey weights	WTC000 BRR weight for replicate 131
WTC132	Survey weights	WTC000 BRR weight for replicate 132
WTC133	Survey weights	WTC000 BRR weight for replicate 133
WTC134	Survey weights	WTC000 BRR weight for replicate 134
WTC135	Survey weights	WTC000 BRR weight for replicate 135
WTC136	Survey weights	WTC000 BRR weight for replicate 136
WTC137	Survey weights	WTC000 BRR weight for replicate 137
WTC138	Survey weights	WTC000 BRR weight for replicate 138
WTC139	Survey weights	WTC000 BRR weight for replicate 139
WTC140	Survey weights	WTC000 BRR weight for replicate 140
WTC141	Survey weights	WTC000 BRR weight for replicate 141
WTC142	Survey weights	WTC000 BRR weight for replicate 142
WTC143	Survey weights	WTC000 BRR weight for replicate 143
WTC144	Survey weights	WTC000 BRR weight for replicate 144
WTC145	Survey weights	WTC000 BRR weight for replicate 145
WTC146	Survey weights	WTC000 BRR weight for replicate 146
WTC147	Survey weights	WTC000 BRR weight for replicate 147
WTC148	Survey weights	WTC000 BRR weight for replicate 148
WTC149	Survey weights	WTC000 BRR weight for replicate 149
WTC150	Survey weights	WTC000 BRR weight for replicate 150
WTC151	Survey weights	WTC000 BRR weight for replicate 151
WTC152	Survey weights	WTC000 BRR weight for replicate 152
WTC153	Survey weights	WTC000 BRR weight for replicate 153

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTC154	Survey weights	WTC000 BRR weight for replicate 154
WTC155	Survey weights	WTC000 BRR weight for replicate 155
WTC156	Survey weights	WTC000 BRR weight for replicate 156
WTC157	Survey weights	WTC000 BRR weight for replicate 157
WTC158	Survey weights	WTC000 BRR weight for replicate 158
WTC159	Survey weights	WTC000 BRR weight for replicate 159
WTC160	Survey weights	WTC000 BRR weight for replicate 160
WTC161	Survey weights	WTC000 BRR weight for replicate 161
WTC162	Survey weights	WTC000 BRR weight for replicate 162
WTC163	Survey weights	WTC000 BRR weight for replicate 163
WTC164	Survey weights	WTC000 BRR weight for replicate 164
WTC165	Survey weights	WTC000 BRR weight for replicate 165
WTC166	Survey weights	WTC000 BRR weight for replicate 166
WTC167	Survey weights	WTC000 BRR weight for replicate 167
WTC168	Survey weights	WTC000 BRR weight for replicate 168
WTC169	Survey weights	WTC000 BRR weight for replicate 169
WTC170	Survey weights	WTC000 BRR weight for replicate 170
WTC171	Survey weights	WTC000 BRR weight for replicate 171
WTC172	Survey weights	WTC000 BRR weight for replicate 172
WTC173	Survey weights	WTC000 BRR weight for replicate 173
WTC174	Survey weights	WTC000 BRR weight for replicate 174
WTC175	Survey weights	WTC000 BRR weight for replicate 175
WTC176	Survey weights	WTC000 BRR weight for replicate 176
WTC177	Survey weights	WTC000 BRR weight for replicate 177
WTC178	Survey weights	WTC000 BRR weight for replicate 178
WTC179	Survey weights	WTC000 BRR weight for replicate 179
WTC180	Survey weights	WTC000 BRR weight for replicate 180
WTC181	Survey weights	WTC000 BRR weight for replicate 181
WTC182	Survey weights	WTC000 BRR weight for replicate 182
WTC183	Survey weights	WTC000 BRR weight for replicate 183
WTC184	Survey weights	WTC000 BRR weight for replicate 184
WTC185	Survey weights	WTC000 BRR weight for replicate 185
WTC186	Survey weights	WTC000 BRR weight for replicate 186
WTC187	Survey weights	WTC000 BRR weight for replicate 187
WTC188	Survey weights	WTC000 BRR weight for replicate 188
WTC189	Survey weights	WTC000 BRR weight for replicate 189
WTC190	Survey weights	WTC000 BRR weight for replicate 190
WTC191	Survey weights	WTC000 BRR weight for replicate 191

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTC192	Survey weights	WTC000 BRR weight for replicate 192
WTC193	Survey weights	WTC000 BRR weight for replicate 193
WTC194	Survey weights	WTC000 BRR weight for replicate 194
WTC195	Survey weights	WTC000 BRR weight for replicate 195
WTC196	Survey weights	WTC000 BRR weight for replicate 196
WTC197	Survey weights	WTC000 BRR weight for replicate 197
WTC198	Survey weights	WTC000 BRR weight for replicate 198
WTC199	Survey weights	WTC000 BRR weight for replicate 199
WTC200	Survey weights	WTC000 BRR weight for replicate 200
WTD000	Survey weights	Postsecondary transcript panel student analytic weight
WTD001	Survey weights	WTD000 BRR weight for replicate 1
WTD002	Survey weights	WTD000 BRR weight for replicate 2
WTD003	Survey weights	WTD000 BRR weight for replicate 3
WTD004	Survey weights	WTD000 BRR weight for replicate 4
WTD005	Survey weights	WTD000 BRR weight for replicate 5
WTD006	Survey weights	WTD000 BRR weight for replicate 6
WTD007	Survey weights	WTD000 BRR weight for replicate 7
WTD008	Survey weights	WTD000 BRR weight for replicate 8
WTD009	Survey weights	WTD000 BRR weight for replicate 9
WTD010	Survey weights	WTD000 BRR weight for replicate 10
WTD011	Survey weights	WTD000 BRR weight for replicate 11
WTD012	Survey weights	WTD000 BRR weight for replicate 12
WTD013	Survey weights	WTD000 BRR weight for replicate 13
WTD014	Survey weights	WTD000 BRR weight for replicate 14
WTD015	Survey weights	WTD000 BRR weight for replicate 15
WTD016	Survey weights	WTD000 BRR weight for replicate 16
WTD017	Survey weights	WTD000 BRR weight for replicate 17
WTD018	Survey weights	WTD000 BRR weight for replicate 18
WTD019	Survey weights	WTD000 BRR weight for replicate 19
WTD020	Survey weights	WTD000 BRR weight for replicate 20
WTD021	Survey weights	WTD000 BRR weight for replicate 21
WTD022	Survey weights	WTD000 BRR weight for replicate 22
WTD023	Survey weights	WTD000 BRR weight for replicate 23
WTD024	Survey weights	WTD000 BRR weight for replicate 24
WTD025	Survey weights	WTD000 BRR weight for replicate 25
WTD026	Survey weights	WTD000 BRR weight for replicate 26
WTD027	Survey weights	WTD000 BRR weight for replicate 27
WTD028	Survey weights	WTD000 BRR weight for replicate 28

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTD029	Survey weights	WTD000 BRR weight for replicate 29
WTD030	Survey weights	WTD000 BRR weight for replicate 30
WTD031	Survey weights	WTD000 BRR weight for replicate 31
WTD032	Survey weights	WTD000 BRR weight for replicate 32
WTD033	Survey weights	WTD000 BRR weight for replicate 33
WTD034	Survey weights	WTD000 BRR weight for replicate 34
WTD035	Survey weights	WTD000 BRR weight for replicate 35
WTD036	Survey weights	WTD000 BRR weight for replicate 36
WTD037	Survey weights	WTD000 BRR weight for replicate 37
WTD038	Survey weights	WTD000 BRR weight for replicate 38
WTD039	Survey weights	WTD000 BRR weight for replicate 39
WTD040	Survey weights	WTD000 BRR weight for replicate 40
WTD041	Survey weights	WTD000 BRR weight for replicate 41
WTD042	Survey weights	WTD000 BRR weight for replicate 42
WTD043	Survey weights	WTD000 BRR weight for replicate 43
WTD044	Survey weights	WTD000 BRR weight for replicate 44
WTD045	Survey weights	WTD000 BRR weight for replicate 45
WTD046	Survey weights	WTD000 BRR weight for replicate 46
WTD047	Survey weights	WTD000 BRR weight for replicate 47
WTD048	Survey weights	WTD000 BRR weight for replicate 48
WTD049	Survey weights	WTD000 BRR weight for replicate 49
WTD050	Survey weights	WTD000 BRR weight for replicate 50
WTD051	Survey weights	WTD000 BRR weight for replicate 51
WTD052	Survey weights	WTD000 BRR weight for replicate 52
WTD053	Survey weights	WTD000 BRR weight for replicate 53
WTD054	Survey weights	WTD000 BRR weight for replicate 54
WTD055	Survey weights	WTD000 BRR weight for replicate 55
WTD056	Survey weights	WTD000 BRR weight for replicate 56
WTD057	Survey weights	WTD000 BRR weight for replicate 57
WTD058	Survey weights	WTD000 BRR weight for replicate 58
WTD059	Survey weights	WTD000 BRR weight for replicate 59
WTD060	Survey weights	WTD000 BRR weight for replicate 60
WTD061	Survey weights	WTD000 BRR weight for replicate 61
WTD062	Survey weights	WTD000 BRR weight for replicate 62
WTD063	Survey weights	WTD000 BRR weight for replicate 63
WTD064	Survey weights	WTD000 BRR weight for replicate 64
WTD065	Survey weights	WTD000 BRR weight for replicate 65
WTD066	Survey weights	WTD000 BRR weight for replicate 66

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTD067	Survey weights	WTD000 BRR weight for replicate 67
WTD068	Survey weights	WTD000 BRR weight for replicate 68
WTD069	Survey weights	WTD000 BRR weight for replicate 69
WTD070	Survey weights	WTD000 BRR weight for replicate 70
WTD071	Survey weights	WTD000 BRR weight for replicate 71
WTD072	Survey weights	WTD000 BRR weight for replicate 72
WTD073	Survey weights	WTD000 BRR weight for replicate 73
WTD074	Survey weights	WTD000 BRR weight for replicate 74
WTD075	Survey weights	WTD000 BRR weight for replicate 75
WTD076	Survey weights	WTD000 BRR weight for replicate 76
WTD077	Survey weights	WTD000 BRR weight for replicate 77
WTD078	Survey weights	WTD000 BRR weight for replicate 78
WTD079	Survey weights	WTD000 BRR weight for replicate 79
WTD080	Survey weights	WTD000 BRR weight for replicate 80
WTD081	Survey weights	WTD000 BRR weight for replicate 81
WTD082	Survey weights	WTD000 BRR weight for replicate 82
WTD083	Survey weights	WTD000 BRR weight for replicate 83
WTD084	Survey weights	WTD000 BRR weight for replicate 84
WTD085	Survey weights	WTD000 BRR weight for replicate 85
WTD086	Survey weights	WTD000 BRR weight for replicate 86
WTD087	Survey weights	WTD000 BRR weight for replicate 87
WTD088	Survey weights	WTD000 BRR weight for replicate 88
WTD089	Survey weights	WTD000 BRR weight for replicate 89
WTD090	Survey weights	WTD000 BRR weight for replicate 90
WTD091	Survey weights	WTD000 BRR weight for replicate 91
WTD092	Survey weights	WTD000 BRR weight for replicate 92
WTD093	Survey weights	WTD000 BRR weight for replicate 93
WTD094	Survey weights	WTD000 BRR weight for replicate 94
WTD095	Survey weights	WTD000 BRR weight for replicate 95
WTD096	Survey weights	WTD000 BRR weight for replicate 96
WTD097	Survey weights	WTD000 BRR weight for replicate 97
WTD098	Survey weights	WTD000 BRR weight for replicate 98
WTD099	Survey weights	WTD000 BRR weight for replicate 99
WTD100	Survey weights	WTD000 BRR weight for replicate 100
WTD101	Survey weights	WTD000 BRR weight for replicate 101
WTD102	Survey weights	WTD000 BRR weight for replicate 102
WTD103	Survey weights	WTD000 BRR weight for replicate 103
WTD104	Survey weights	WTD000 BRR weight for replicate 104

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTD105	Survey weights	WTD000 BRR weight for replicate 105
WTD106	Survey weights	WTD000 BRR weight for replicate 106
WTD107	Survey weights	WTD000 BRR weight for replicate 107
WTD108	Survey weights	WTD000 BRR weight for replicate 108
WTD109	Survey weights	WTD000 BRR weight for replicate 109
WTD110	Survey weights	WTD000 BRR weight for replicate 110
WTD111	Survey weights	WTD000 BRR weight for replicate 111
WTD112	Survey weights	WTD000 BRR weight for replicate 112
WTD113	Survey weights	WTD000 BRR weight for replicate 113
WTD114	Survey weights	WTD000 BRR weight for replicate 114
WTD115	Survey weights	WTD000 BRR weight for replicate 115
WTD116	Survey weights	WTD000 BRR weight for replicate 116
WTD117	Survey weights	WTD000 BRR weight for replicate 117
WTD118	Survey weights	WTD000 BRR weight for replicate 118
WTD119	Survey weights	WTD000 BRR weight for replicate 119
WTD120	Survey weights	WTD000 BRR weight for replicate 120
WTD121	Survey weights	WTD000 BRR weight for replicate 121
WTD122	Survey weights	WTD000 BRR weight for replicate 122
WTD123	Survey weights	WTD000 BRR weight for replicate 123
WTD124	Survey weights	WTD000 BRR weight for replicate 124
WTD125	Survey weights	WTD000 BRR weight for replicate 125
WTD126	Survey weights	WTD000 BRR weight for replicate 126
WTD127	Survey weights	WTD000 BRR weight for replicate 127
WTD128	Survey weights	WTD000 BRR weight for replicate 128
WTD129	Survey weights	WTD000 BRR weight for replicate 129
WTD130	Survey weights	WTD000 BRR weight for replicate 130
WTD131	Survey weights	WTD000 BRR weight for replicate 131
WTD132	Survey weights	WTD000 BRR weight for replicate 132
WTD133	Survey weights	WTD000 BRR weight for replicate 133
WTD134	Survey weights	WTD000 BRR weight for replicate 134
WTD135	Survey weights	WTD000 BRR weight for replicate 135
WTD136	Survey weights	WTD000 BRR weight for replicate 136
WTD137	Survey weights	WTD000 BRR weight for replicate 137
WTD138	Survey weights	WTD000 BRR weight for replicate 138
WTD139	Survey weights	WTD000 BRR weight for replicate 139
WTD140	Survey weights	WTD000 BRR weight for replicate 140
WTD141	Survey weights	WTD000 BRR weight for replicate 141
WTD142	Survey weights	WTD000 BRR weight for replicate 142

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTD143	Survey weights	WTD000 BRR weight for replicate 143
WTD144	Survey weights	WTD000 BRR weight for replicate 144
WTD145	Survey weights	WTD000 BRR weight for replicate 145
WTD146	Survey weights	WTD000 BRR weight for replicate 146
WTD147	Survey weights	WTD000 BRR weight for replicate 147
WTD148	Survey weights	WTD000 BRR weight for replicate 148
WTD149	Survey weights	WTD000 BRR weight for replicate 149
WTD150	Survey weights	WTD000 BRR weight for replicate 150
WTD151	Survey weights	WTD000 BRR weight for replicate 151
WTD152	Survey weights	WTD000 BRR weight for replicate 152
WTD153	Survey weights	WTD000 BRR weight for replicate 153
WTD154	Survey weights	WTD000 BRR weight for replicate 154
WTD155	Survey weights	WTD000 BRR weight for replicate 155
WTD156	Survey weights	WTD000 BRR weight for replicate 156
WTD157	Survey weights	WTD000 BRR weight for replicate 157
WTD158	Survey weights	WTD000 BRR weight for replicate 158
WTD159	Survey weights	WTD000 BRR weight for replicate 159
WTD160	Survey weights	WTD000 BRR weight for replicate 160
WTD161	Survey weights	WTD000 BRR weight for replicate 161
WTD162	Survey weights	WTD000 BRR weight for replicate 162
WTD163	Survey weights	WTD000 BRR weight for replicate 163
WTD164	Survey weights	WTD000 BRR weight for replicate 164
WTD165	Survey weights	WTD000 BRR weight for replicate 165
WTD166	Survey weights	WTD000 BRR weight for replicate 166
WTD167	Survey weights	WTD000 BRR weight for replicate 167
WTD168	Survey weights	WTD000 BRR weight for replicate 168
WTD169	Survey weights	WTD000 BRR weight for replicate 169
WTD170	Survey weights	WTD000 BRR weight for replicate 170
WTD171	Survey weights	WTD000 BRR weight for replicate 171
WTD172	Survey weights	WTD000 BRR weight for replicate 172
WTD173	Survey weights	WTD000 BRR weight for replicate 173
WTD174	Survey weights	WTD000 BRR weight for replicate 174
WTD175	Survey weights	WTD000 BRR weight for replicate 175
WTD176	Survey weights	WTD000 BRR weight for replicate 176
WTD177	Survey weights	WTD000 BRR weight for replicate 177
WTD178	Survey weights	WTD000 BRR weight for replicate 178
WTD179	Survey weights	WTD000 BRR weight for replicate 179
WTD180	Survey weights	WTD000 BRR weight for replicate 180

See notes at end of table.

Table E-1. Analysis Variables: 2012–17—Continued

Variable name	Subject	Variable label
WTD181	Survey weights	WTD000 BRR weight for replicate 181
WTD182	Survey weights	WTD000 BRR weight for replicate 182
WTD183	Survey weights	WTD000 BRR weight for replicate 183
WTD184	Survey weights	WTD000 BRR weight for replicate 184
WTD185	Survey weights	WTD000 BRR weight for replicate 185
WTD186	Survey weights	WTD000 BRR weight for replicate 186
WTD187	Survey weights	WTD000 BRR weight for replicate 187
WTD188	Survey weights	WTD000 BRR weight for replicate 188
WTD189	Survey weights	WTD000 BRR weight for replicate 189
WTD190	Survey weights	WTD000 BRR weight for replicate 190
WTD191	Survey weights	WTD000 BRR weight for replicate 191
WTD192	Survey weights	WTD000 BRR weight for replicate 192
WTD193	Survey weights	WTD000 BRR weight for replicate 193
WTD194	Survey weights	WTD000 BRR weight for replicate 194
WTD195	Survey weights	WTD000 BRR weight for replicate 195
WTD196	Survey weights	WTD000 BRR weight for replicate 196
WTD197	Survey weights	WTD000 BRR weight for replicate 197
WTD198	Survey weights	WTD000 BRR weight for replicate 198
WTD199	Survey weights	WTD000 BRR weight for replicate 199
WTD200	Survey weights	WTD000 BRR weight for replicate 200

NOTE: AP = Advanced Placement; BRR = balanced repeated replication; CIP = Classification of Instructional Programs; CLEP = College Level Examination Program; CTE = career and technical education; ESL = English as a second language; GPA = grade point average; IB = International Baccalaureate; IPEDS = Integrated Postsecondary Education Data System; NCES = National Center for Education Statistics; NSF = National Science Foundation; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Appendix F. Item Response Rates

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QT1STCRED	Transcript: First known undergraduate credential received	25,910	99.55	99.21	99.15	100.00	99.97	100.00	99.88	99.56	99.80	99.45	99.46
QT1STSTP	Transcript: Length of first stopout	14,510	22.90	33.89	37.04	23.14	9.32	21.55	11.54	7.19	13.99	42.25	35.81
QT2STSTP	Transcript: Length of second stopout	11,680	5.90	6.81	11.56	8.50	1.75	3.71	1.54	1.47	1.37	6.00	8.43
QTAGE	Base year: Age as of 12/31/2017	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTASOC1DT	Transcript: Date of first known associate's degree received	3,090	95.25	‡	95.02	99.59	96.62	‡	96.62	74.01	‡	95.00	95.41
QTASOC1IPEDS	Transcript: IPEDS ID of first known associate's degree received	3,090	96.29	‡	95.68	100.00	99.23	‡	97.60	83.78	‡	95.81	96.32
QTASOCLTDT	Transcript: Date of most recent known associate's degree received	3,090	95.25	‡	95.02	99.59	96.62	‡	96.62	74.01	‡	95.00	95.41
QTASOCLTIPEDS	Transcript: IPEDS ID of most recent known associate's degree received	3,090	96.29	‡	95.68	100.00	99.23	‡	97.60	83.78	‡	95.81	96.32
QTASSOCCRED	Transcript: Total number of known associate's degrees received	25,910	99.57	99.21	99.19	100.00	99.97	100.00	99.88	99.56	99.80	99.45	99.46
QTATT1STSC	Transcript: First known institution attended: known credits attempted	25,910	97.16	93.97	98.81	98.60	97.25	98.96	96.24	97.33	79.62	95.86	96.37
QTATTEND	Base year: Attendance intensity in fall 2017	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTATTHDEG	Transcript: Highest known degree institution: known credits attempted	11,480	95.93	90.58	95.19	96.74	96.77	100.00	93.60	96.10	94.64	98.27	96.29
QTATTLSC	Transcript: Last known institution attended: known credits attempted	25,910	95.32	91.82	96.76	97.25	95.04	98.67	94.55	95.80	79.28	93.51	95.16
QTAY1112ATT	Transcript: Academic year 2011–12: known credits attempted	25,910	98.68	97.96	99.34	99.22	98.48	99.22	96.72	98.18	95.19	98.96	99.12

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTAY1112ERN	Transcript: Academic year 2011–12: known credits earned	25,910	98.49	97.96	99.09	99.07	98.48	99.22	96.72	98.18	93.26	98.73	99.11
QTAY1112GPA	Transcript: Academic year 2011–12: GPA	21,170	97.38	54.55	99.03	99.08	98.35	95.47	96.36	98.03	70.29	94.48	98.87
QTAY1213ATT	Transcript: Academic year 2012–13: known credits attempted	17,120	98.30	93.53	99.00	99.03	98.24	98.23	96.15	97.94	90.99	97.74	98.39
QTAY1213ENROLL	Transcript: Academic year 2012–13: enrolled	25,910	99.00	98.15	99.65	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTAY1213ERN	Transcript: Academic year 2012–13: known credits earned	17,120	98.21	93.53	98.84	98.87	98.24	98.23	96.08	97.92	90.99	97.74	98.37
QTAY1314ENROLL	Transcript: Academic year 2013–14: enrolled	25,910	99.00	98.15	99.65	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTAY1415ENROLL	Transcript: Academic year 2014–15: enrolled	25,910	99.00	98.15	99.65	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTAY1516ENROLL	Transcript: Academic year 2015–16: enrolled	25,910	99.00	98.15	99.65	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTAY1617ENROLL	Transcript: Academic year 2016–17: enrolled	25,910	99.00	98.15	99.65	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTBACC1IPEDS	Transcript: IPEDS ID of first known bachelor's degree received	6,690	98.57	‡	91.90	100.00	99.95	‡	99.80	99.36	‡	‡	95.31
QTBACCLTIPEDS	Transcript: IPEDS ID of most recent known bachelor's degree received	6,690	98.57	‡	91.90	100.00	99.95	‡	99.80	99.36	‡	‡	95.31
QTBACCRED	Transcript: Total number of known bachelor's degrees received	25,910	99.57	99.21	99.19	100.00	99.97	100.00	99.88	99.56	99.80	99.45	99.46
QTBACH1DT	Transcript: Date of first known bachelor's degree received	6,690	97.96	‡	89.70	98.05	99.69	‡	99.80	99.29	‡	‡	95.12
QTBACHLTDT	Transcript: Date of most recent known bachelor's degree received	6,690	97.96	‡	89.70	98.05	99.69	‡	99.80	99.29	‡	‡	95.12
QTBUSATT	Transcript: Business: known credits attempted	9,140	96.92	‡	98.21	97.82	96.41	96.41	93.18	96.09	94.15	96.43	98.17
QTBUSENROLL	Transcript: Business: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTBUSERN	Transcript: Business: known credits earned	9,140	96.94	‡	98.26	97.82	96.35	96.41	93.18	96.03	94.15	97.16	98.17

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTCERT1DT	Transcript: Date of first known undergraduate certificate/diploma	2,950	94.86	98.28	91.20	100.00	98.38	100.00	95.36	66.24	99.40	97.88	83.78
QTCERT1IPEDS	Transcript: IPEDS ID of first known undergraduate certificate/diploma	2,950	95.49	98.28	92.11	100.00	98.95	100.00	96.11	66.24	99.62	98.74	84.22
QTCERTCRED	Transcript: Total number of known undergraduate certificate/diplomas received	25,910	99.57	99.21	99.19	100.00	99.97	100.00	99.88	99.56	99.80	99.45	99.46
QTCERTLTDT	Transcript: Date of most recent known undergraduate certificate/diploma	2,950	94.86	98.28	91.20	100.00	98.38	100.00	95.36	66.24	99.40	97.88	83.78
QTCERTLTIPEDS	Transcript: IPEDS ID of most recent known undergraduate certificate/diploma	2,950	95.49	98.28	92.11	100.00	98.95	100.00	96.11	66.24	99.62	98.74	84.22
QTCINCOME	Base year: Total income (continuous) in 2012	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTCOVERAGE	Transcript: Overall transcript coverage indicator	25,910	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
QTCSCATT	Transcript: All computer science: known credits attempted	10,510	97.18	86.52	98.69	98.24	96.24	97.47	92.28	95.54	96.10	97.55	97.77
QTCSCENROLL	Transcript: All computer science: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTCSCERN	Transcript: All computer science: known credits earned	10,510	97.18	86.52	98.68	98.15	96.30	97.47	92.41	95.54	96.10	97.55	97.75
QTCTEASOC	Transcript: Any known associate's degree received in CTE field	3,090	96.29	‡	95.68	100.00	99.23	‡	97.60	83.78	‡	95.81	96.32
QTCTEATT	Transcript: CTE: known credits attempted	12,510	97.21	97.81	99.16	93.43	92.63	98.67	85.75	86.82	94.04	98.44	93.17
QTCTEBACC	Transcript: Any known bachelor's degree received in CTE field	6,690	98.57	‡	91.90	100.00	99.95	‡	99.80	99.36	‡	‡	95.31
QTCTECERT	Transcript: Any known undergraduate certificate/diploma received in CTE field	2,950	95.49	98.28	92.11	100.00	98.95	100.00	96.11	66.24	99.62	98.74	84.22

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTCTEENROLL	Transcript: CTE: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTCTEERN	Transcript: CTE: known credits earned	12,510	97.03	97.81	99.14	93.43	92.58	98.67	86.04	86.82	91.35	98.45	93.15
QTCTEGPA	Transcript: CTE: GPA	11,660	94.09	61.88	98.10	88.15	91.76	96.74	83.85	85.39	74.75	94.49	89.30
QTCTEMIN	Transcript: Any known minor for bachelor's degree received in CTE field	6,690	98.57	‡	91.90	100.00	99.95	‡	99.80	99.36	‡	‡	95.31
QTDEPEND5B	Base year: Dependency and marital status (separated is unmarried) 2011–12	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTDEPINC	Base year: Dependent students parents' income in 2012	25,910	75.27	53.83	69.02	83.01	94.68	54.43	93.13	89.62	42.33	49.48	35.89
QTENGRATT	Transcript: All engineering: known credits attempted	1,630	86.74	‡	89.53	89.84	90.76	‡	61.62	87.58	‡	‡	56.81
QTENGRENROLL	Transcript: All engineering: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTENGRERN	Transcript: All engineering: known credits earned	1,630	86.65	‡	89.11	89.84	90.76	‡	61.68	87.58	‡	‡	56.81
QTENRATT	Transcript: Combined known enrollment and attainment as of June 2017	25,910	97.59	94.17	97.99	99.27	98.96	99.03	98.53	98.18	83.67	95.04	96.07
QTENROLLST	Transcript: Month-by-month known enrollment indicator string (January 2011–June 2017)	25,910	98.25	94.17	98.82	99.57	99.40	99.03	99.65	99.39	83.85	95.17	96.42
QTERN1STSC	Transcript: First known institution attended: known credits earned	25,910	97.10	93.97	98.79	98.53	97.30	98.96	96.24	97.41	77.75	95.92	96.49
QTERNHDEG	Transcript: Highest known degree institution: known credits earned	11,480	95.86	95.51	95.21	96.74	96.77	100.00	93.60	96.10	91.89	98.27	96.29
QTERNLSC	Transcript: Last known institution attended: known credits earned	25,910	95.56	91.82	97.10	97.51	95.47	98.70	94.81	96.04	77.60	93.38	95.41
QTEVERAPCRD	Transcript: Any known AP credit received	25,910	98.88	98.15	99.51	99.28	98.34	99.22	97.33	97.78	98.89	99.31	99.12

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTEVERCLEP	Transcript: Any known CLEP credit received	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTEVERDUAL	Transcript: Any known dual-enrollment credit received	25,910	98.24	98.15	98.67	98.04	98.06	98.40	96.89	97.23	98.65	99.03	98.72
QTEVEREXMCRD	Transcript: Any known exam credit received	25,910	98.89	98.15	99.42	99.28	98.40	99.22	97.33	98.18	98.89	99.29	99.10
QTEVERIBCRD	Transcript: Any known IB credit received	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTEVERMILCRD	Transcript: Any known military credit received	25,910	98.94	98.15	99.51	99.25	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTEVERNCCRD	Transcript: Any known other noncredit course credit received	25,910	98.78	98.15	99.37	99.15	98.26	99.22	97.28	97.78	98.89	99.22	99.09
QTEVERWKCRD	Transcript: Any work credit received	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTEVTRANSFER	Transcript: Ever known transfer	25,910	97.22	94.17	98.61	98.69	97.26	99.03	96.85	97.35	83.58	94.91	96.02
QTFLATT	Transcript: Foreign language: known credits attempted	6,590	96.29	‡	97.51	97.85	96.79	96.73	92.48	96.96	60.16	84.91	87.06
QTFLENROLL	Transcript: Foreign language: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTFLERN	Transcript: Foreign language: known credits earned	6,590	96.25	‡	97.37	97.85	96.79	96.73	92.48	96.88	60.16	84.91	87.06
QTFTDESTIPEDS	Transcript: First transfer: IPEDS ID of destination institution	7,600	90.57	71.49	95.39	95.54	92.15	93.30	90.95	90.55	39.96	71.10	72.33
QTFTDESTMY	Transcript: First transfer: First date of enrollment at destination institution	7,600	90.57	71.49	95.39	95.54	92.15	93.30	90.95	90.55	39.96	71.10	72.33
QTFTDESTTRAN	Transcript: First transfer: total credits transferred from the origin institution to the destination institution	7,600	90.57	71.49	95.39	95.54	92.15	93.30	90.95	90.55	39.96	71.10	72.33
QTFTORIGERN	Transcript: First transfer: total credits earned at origin institution	7,600	90.41	71.49	95.17	95.54	92.15	93.30	90.49	90.55	38.89	71.04	72.29
QTFTORIGIPEDS	Transcript: First transfer: IPEDS ID of origin institution	7,600	90.57	71.49	95.39	95.54	92.15	93.30	90.95	90.55	39.96	71.10	72.33

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTFTORIGMY	Transcript: First transfer: last date of enrollment at origin institution	7,600	90.57	71.49	95.39	95.54	92.15	93.30	90.95	90.55	39.96	71.10	72.33
QTGENDER	Base year: Gender	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTGPA1STSC	Transcript: First known institution attended: GPA	24,790	95.84	61.08	98.34	98.40	97.20	96.45	96.05	97.28	61.73	91.93	95.91
QTGPAALL	Transcript: GPA at all known institutions attended	25,030	97.64	75.00	98.91	99.10	98.43	96.81	96.73	98.05	81.38	95.60	98.82
QTGPALSC	Transcript: Last known institution attended: GPA	24,670	93.70	64.24	95.75	96.64	94.86	96.12	93.82	95.57	60.41	89.64	94.40
QTHCMATHHI	Base year: Highest level of high school mathematics	25,910	89.19	80.61	85.83	93.12	98.29	73.05	97.73	92.80	77.43	82.09	72.52
QTHIGH10MAJ	Transcript: 10-category major of highest known degree obtained as of June 2017	11,480	96.87	98.29	92.43	94.64	99.45	99.28	98.47	98.65	99.27	98.81	95.80
QTHIGH11MAJ	Transcript: 11-category major of highest known degree obtained as of June 2017	11,480	96.87	98.29	92.43	94.64	99.45	99.28	98.47	98.65	99.27	98.81	95.80
QTHIGH23MAJ	Transcript: 23-category major of highest known degree obtained as of June 2017	11,480	96.87	98.29	92.43	94.64	99.45	99.28	98.47	98.65	99.27	98.81	95.80
QTHIGHCIP	Transcript: Six-digit CIP code of highest degree obtained as of June 2017	11,480	96.87	98.29	92.43	94.64	99.45	99.28	98.47	98.65	99.27	98.81	95.80
QTHIGHDATE	Transcript: Date of highest degree obtained as of June 2017	11,480	98.28	98.29	95.82	98.53	99.52	100.00	99.80	98.94	98.98	98.01	97.29
QTHIGHDEG	Transcript: Highest degree obtained as of June 2017	25,910	99.57	99.21	99.19	100.00	99.97	100.00	99.88	99.56	99.80	99.45	99.46
QTHLTATT	Transcript: Allied health: known credits attempted	6,640	95.64	92.00	97.61	97.15	93.60	92.85	88.91	92.95	97.79	98.56	94.32
QTHLTENROLL	Transcript: Allied health: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTHLTERN	Transcript: Allied health: known credits earned	6,640	95.64	92.00	97.60	97.15	93.60	92.85	88.91	92.95	97.74	98.56	94.32

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTHS2PS1	Transcript: Number of months between high school exit and postsecondary entry	25,910	93.55	94.26	93.32	95.97	96.40	95.65	95.55	95.18	78.85	86.12	90.09
QTHSGPA	Base year: GPA in high school	25,910	89.19	80.61	85.83	93.12	98.29	73.05	97.73	92.80	77.43	82.09	72.52
QTHSGRADMY	Transcript: High school graduation date	25,910	95.73	99.04	94.19	97.20	99.05	96.62	98.32	97.46	88.92	90.59	93.38
QTHSTYPE	Base year: Type of high school attended	25,910	87.55	77.52	82.53	91.22	97.92	71.88	96.67	91.87	73.57	80.80	77.23
QTHUMATT	Transcript: All humanities: known credits attempted	19,770	98.64	95.50	99.34	99.20	98.40	98.54	96.81	98.05	95.33	97.78	98.79
QTHUMENROLL	Transcript: All humanities: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTHUMERN	Transcript: All humanities: known credits earned	19,770	98.60	95.50	99.23	99.20	98.40	98.54	96.70	98.05	95.33	97.78	98.79
QTIPEDS1STSC	Transcript: First known institution attended: IPEDS ID	25,910	97.77	95.22	99.42	98.78	97.35	99.03	96.97	97.49	84.65	96.84	97.00
QTIPEDSHDEG	Transcript: Highest known degree institution: IPEDS ID	11,480	99.06	98.29	97.25	100.00	99.95	100.00	99.82	99.38	99.62	99.02	97.90
QTIPEDSLSC	Transcript: Last known institution attended: IPEDS ID	25,910	97.77	95.22	99.42	98.78	97.35	99.03	96.97	97.49	84.65	96.84	97.00
QTJOBEARN2	Base year: Earnings from all work while enrolled as of 2012	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTLASTENR17	Transcript: Spring 2017 enrollment	25,910	98.25	94.17	98.82	99.57	99.40	99.03	99.65	99.39	83.85	95.17	96.42
QTMONENROL	Transcript: Total known months enrolled	25,910	97.60	94.17	98.74	98.94	98.16	99.03	97.31	97.96	83.79	95.17	96.24
QTNRSATT	Transcript: Nursing: known credits attempted	1,250	76.95	‡	88.09	84.12	73.01	‡	54.17	62.04	75.49	71.45	49.52
QTNRSENROLL	Transcript: Nursing: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTNRSERN	Transcript: Nursing: known credits earned	1,250	76.94	‡	88.09	84.12	72.82	‡	54.17	62.04	75.49	71.45	49.74
QTNUMCRED	Transcript: Total number of known undergraduate certificate/diplomas/degrees received	25,910	99.57	99.21	99.19	100.00	99.97	100.00	99.88	99.56	99.80	99.45	99.46
QTNUMCRSFA	Transcript: Number of known courses failed	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTNUMCRSWD	Transcript: Number of known courses with withdrawals	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTOVRLAP	Transcript: Co-enrollment at two or more institutions	15,020	49.71	54.89	50.13	44.05	47.26	36.17	46.23	42.83	52.59	81.57	62.61
QTPAREDUC	Base year: Parents' highest education level	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTPCTPOV	Base year: Income percent of poverty level 2012	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTPFPATT	Transcript: Private for-profit institutions: known credits attempted	6,180	92.20	‡	88.44	76.39	54.00	‡	44.33	39.98	97.32	98.75	99.04
QTPFPENROLL	Transcript: Private for-profit institutions: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTPFPERN	Transcript: Private for-profit institutions: known credits earned	6,180	92.12	‡	88.39	76.39	54.00	‡	44.33	39.98	97.32	98.48	99.03
QTPOSTATT	Transcript: Postsecondary career: known credits attempted	25,910	98.73	97.96	99.41	99.28	98.48	99.22	96.88	98.18	95.36	98.97	99.08
QTPOSTERN	Transcript: Postsecondary career: known credits earned	25,910	98.54	97.96	99.18	99.13	98.48	99.22	96.83	98.18	93.41	98.73	99.08
QTPS1INSTCAT2	Postsecondary Transcript: Institutional category and control of first known postsecondary institution	25,910	97.74	95.22	99.42	98.78	97.35	99.03	96.97	97.49	84.65	96.10	97.00
QTPS1LEV	Transcript: Level of first known postsecondary institution	25,910	97.77	95.22	99.42	98.78	97.35	99.03	96.97	97.49	84.65	96.84	97.00
QTPS1SEC	Transcript: Sector of first known postsecondary institution	25,910	97.77	95.22	99.42	98.78	97.35	99.03	96.97	97.49	84.65	96.84	97.00
QTPS1SLC	Transcript: Institutional selectivity of first known postsecondary institution	25,910	97.77	95.22	99.42	98.78	97.35	99.03	96.97	97.49	84.65	96.84	97.00
QTPS1START	Transcript: Date of first known postsecondary attendance after high school completion	25,910	97.19	95.22	98.55	98.52	97.28	98.53	96.95	96.73	84.39	94.97	96.39
QTPS2ASOC1	Transcript: Number of months between known postsecondary start and first associate's degree	3,090	93.83	‡	93.30	98.06	95.77	‡	96.62	74.01	‡	95.00	94.17

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTPS2AWD1	Transcript: Elapsed time from known entry to first undergraduate credential	11,420	97.51	94.11	94.87	97.83	99.28	98.91	99.76	97.98	98.98	94.60	95.65
QTPS2AWD1NG	Transcript: Elapsed time from known entry to first undergraduate credential (no gaps)	11,420	96.59	91.84	93.59	97.61	98.45	88.11	98.95	97.22	98.71	93.21	95.47
QTPS2BACC1	Transcript: Number of months between known postsecondary start and first bachelor's degree	6,690	97.61	‡	89.50	97.87	99.53	‡	99.75	98.34	‡	‡	93.15
QTPS2CERT1	Transcript: Number of months between known postsecondary start and first undergraduate certificate or diploma	2,950	92.51	94.09	89.21	100.00	89.98	97.83	95.36	66.14	99.40	93.31	83.18
QTPS2HIAWD1	Transcript: Elapsed time from known entry to highest degree attained	11,480	97.02	94.11	94.40	97.51	98.82	98.91	98.33	97.39	98.98	94.46	95.58
QTPS2HIAWD1NG	Transcript: Elapsed time from known entry to highest degree attained (no gaps)	11,480	96.22	91.84	93.63	97.30	98.00	88.11	97.54	96.64	98.71	93.07	95.41
QTPUB2ATT	Transcript: Public 2-year institutions: known credits attempted	13,230	97.88	95.23	99.39	95.95	95.65	97.10	90.77	91.88	93.42	96.01	93.23
QTPUB2ENROLL	Transcript: Public 2-year institutions: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTPUB2ERN	Transcript: Public 2-year institutions: known credits earned	13,230	97.71	95.23	99.14	95.95	95.65	97.10	90.96	91.88	93.42	96.01	93.21
QTRACE	Base year: Race/ethnicity (with multiple)	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTRATCRSWD	Transcript: Ratio of withdrawals to all courses	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTRECTRANS	Transcript: Number of transcripts received	25,910	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
QTREMENENROLL	Transcript: Remedial English courses: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTREMENGPS	Transcript: Remedial English courses: known number passed	4,650	93.99	‡	98.30	95.14	82.48	96.98	68.47	71.13	88.30	94.09	94.49

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTREMENROLL	Transcript: Remedial courses: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTREMENTOT	Transcript: Remedial English courses: known number taken	4,650	93.99	‡	98.30	95.14	82.48	96.98	68.47	71.13	88.30	94.09	94.49
QTREMMTENROLL	Transcript: Remedial mathematics courses: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTREMMTHPS	Transcript: Remedial mathematics courses known number passed	9,100	96.93	92.42	99.07	98.24	91.86	97.76	85.36	85.15	96.04	96.39	96.30
QTREMMTTOT	Transcript: Remedial mathematics courses known number taken	9,100	96.93	92.42	99.07	98.24	91.86	97.76	85.36	85.15	96.04	96.39	96.30
QTREMPASS	Transcript: Remedial courses known number passed	11,030	97.50	95.11	99.24	98.45	93.71	98.16	88.36	88.91	96.44	97.20	97.32
QTREMTOT	Transcript: Remedial courses: known number taken	11,030	97.50	95.11	99.24	98.45	93.71	98.16	88.36	88.91	96.44	97.20	97.32
QTREQTRANS	Transcript: Total transcripts requested	25,910	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
QTSCHTOTAL	Transcript: Total known institutions attended	25,910	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
QTSMARITAL	Base year: Marital status 2012	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTSSCATT	Transcript: All social science: known credits attempted	17,960	98.53	‡	99.25	99.15	98.38	98.73	96.50	98.06	94.10	97.54	98.52
QTSSCENROLL	Transcript: All social science: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTSSCERN	Transcript: All social science: known credits earned	17,960	98.50	‡	99.20	99.08	98.38	98.73	96.56	98.06	94.10	97.54	98.49
QTST1YR1ENROLL	Transcript: First-year STEM enrollment (using SMART Grant definition of STEM): enrolled	25,910	96.95	94.17	98.18	98.43	97.28	98.46	96.82	96.64	83.36	94.69	95.99
QTST2YR1ENROLL	Transcript: First-year STEM enrollment (using NSF definition of STEM): enrolled	25,910	96.95	94.17	98.18	98.43	97.28	98.46	96.82	96.64	83.36	94.69	95.99
QTST3YR1ATT	Transcript: First-year STEM enrollment (using NCES definition of STEM): known credits attempted	19,370	95.76	83.31	97.22	98.19	96.96	97.47	95.31	95.14	64.33	90.92	92.05

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTST3YR1ENROLL	Transcript: First-year STEM enrollment (using NCES definition of STEM): enrolled	25,910	96.95	94.17	98.18	98.43	97.28	98.46	96.82	96.64	83.36	94.69	95.99
QTST3YR1ERN	Transcript: First-year STEM enrollment (using NCES definition of STEM): known credits earned	19,370	95.60	83.31	96.87	98.12	96.93	97.47	95.10	95.11	64.33	90.92	92.07
QTST3YR1GPA	Transcript: First-year STEM enrollment (using NCES definition of STEM): GPA	17,410	95.22	71.21	96.66	97.96	96.75	96.64	94.94	94.91	59.86	89.93	91.05
QTSTATATT	Transcript: Statistics courses in all departments: known credits attempted	7,270	96.70	‡	97.66	98.22	97.29	‡	93.46	96.78	77.63	72.98	90.04
QTSTATENROLL	Transcript: Statistics courses in all departments: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTSTATERN	Transcript: Statistics courses in all departments: known credits earned	7,270	96.68	‡	97.67	98.22	97.25	‡	93.46	96.71	77.63	72.98	90.04
QTSTEM1CRED	Transcript: Any known undergraduate degree received in STEM field (using SMART Grant definition of STEM)	11,420	99.06	98.29	97.25	100.00	99.95	100.00	99.82	99.38	99.62	99.02	97.90
QTSTEM2CRED	Transcript: Any known undergraduate degree received in STEM field (using NSF definition of STEM)	11,420	99.06	98.29	97.25	100.00	99.95	100.00	99.82	99.38	99.62	99.02	97.90
QTSTEM3ASOC	Transcript: Any known associate's degree received in STEM field (using NCES definition of STEM)	3,090	96.29	‡	95.68	100.00	99.23	‡	97.60	83.78	‡	95.81	96.32
QTSTEM3ATT	Transcript: STEM (using NCES definition of STEM): known credits attempted	21,940	98.66	96.88	99.24	99.22	98.43	98.96	96.60	98.03	97.92	98.96	98.60
QTSTEM3BACC	Transcript: Any known bachelor's degree received in STEM field (using NCES definition of STEM)	6,690	98.57	‡	91.90	100.00	99.95	‡	99.80	99.36	‡	‡	95.31

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTSTEM3CERT	Transcript: Any known undergraduate certificate/diploma received in STEM field (using NCES definition of STEM)	2,950	95.49	98.28	92.11	100.00	98.95	100.00	96.11	66.24	99.62	98.74	84.22
QTSTEM3CRED	Transcript: Any known undergraduate degree received in STEM field (using NCES definition of STEM)	11,420	99.06	98.29	97.25	100.00	99.95	100.00	99.82	99.38	99.62	99.02	97.90
QTSTEM3ENROLL	Transcript: STEM (using NCES definition of STEM): enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTSTEM3ERN	Transcript: STEM (using NCES definition of STEM): known credits earned	21,940	98.53	96.88	98.92	99.20	98.43	98.96	96.54	97.99	97.92	98.96	98.62
QTSTEM3GPA	Transcript: STEM (using NCES definition of STEM): GPA	20,470	98.34	88.71	98.84	99.17	98.28	98.67	96.38	97.70	97.72	98.85	98.12
QTSTEM3MIN	Transcript: Any known minor in STEM field (using NCES definition of STEM) if bachelor's degree received	6,690	98.57	‡	91.90	100.00	99.95	‡	99.80	99.36	‡	‡	95.31
QTSTOPGT4M	Transcript: Count of stopouts longer than 4 months	25,910	54.71	77.00	63.87	53.65	33.61	64.24	42.96	37.70	66.11	86.33	77.53
QTSUM1112ATT	Transcript: Summer 2011 and Summer 2012: known credits attempted	6,370	95.03	‡	97.56	96.66	93.63	‡	82.01	89.53	90.24	97.20	97.53
QTSUM1112ENROLL	Transcript: Summer 2011 and summer 2012 enrollment	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTSUM1112ERN	Transcript: Summer 2011 and summer 2012: known credits earned.	6,370	94.85	‡	97.24	96.66	93.47	‡	82.01	89.53	90.24	97.00	97.46
QTSUM11ATT	Transcript: Summer 2011: known credits attempted	1,230	77.37	‡	88.04	76.17	70.45	‡	42.05	59.50	65.77	90.55	90.48
QTSUM11ENROLL	Transcript: Summer 2011: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTSUM11ERN	Transcript: Summer 2011: known credits earned	1,230	76.81	‡	86.39	76.17	70.45	‡	42.05	59.50	65.77	90.55	90.48

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTSUM12ATT	Transcript: Summer 2012: known credits attempted	5,760	94.48	‡	97.28	96.39	93.13	‡	79.89	88.37	89.62	96.72	97.09
QTSUM12ENROLL	Transcript: Summer 2012: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTSUM12ERN	Transcript: Summer 2012: known credits earned	5,760	94.35	‡	97.10	96.39	92.95	‡	79.89	88.37	89.62	96.49	97.00
QTSUM13ATT	Transcript: Summer 2013: known credits attempted	4,760	93.95	‡	95.97	96.47	94.76	‡	84.36	91.22	74.61	86.52	95.40
QTSUM13ENROLL	Transcript: Summer 2013: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTSUM13ERN	Transcript: Summer 2013: known credits earned	4,760	93.75	‡	95.94	95.59	94.57	‡	84.57	90.88	74.61	86.52	95.29
QTSUMATT	Transcript: Summer terms: known credits attempted	12,290	97.12	90.51	98.39	98.37	97.52	96.25	93.80	92.15	94.34	97.70	98.18
QTSUMENROLL	Transcript: Summer terms: enrolled	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTSUMERN	Transcript: Summer terms: known credits earned	12,290	97.07	90.51	98.32	98.37	97.52	96.25	93.80	92.03	94.14	97.70	98.08
QTTESATDER	Base year: SAT derived composite score	25,910	75.39	56.81	62.95	84.72	97.58	58.96	96.24	91.36	49.65	57.69	47.42
QTTESATMDE	Base year: SAT derived math score	25,910	75.39	56.81	62.95	84.72	97.58	58.96	96.24	91.36	49.65	57.69	47.42
QTTESATVDE	Base year: SAT derived verbal score	25,910	75.39	56.81	62.95	84.72	97.58	58.96	96.24	91.36	49.65	57.69	47.42
QTTOTCOURSE	Transcript: Total number of known undergraduate courses attempted	25,910	98.94	98.15	99.51	99.28	98.48	99.22	97.33	98.18	98.89	99.31	99.12
QTTOTEDERN	Transcript: Postsecondary career (excluding dual enrollment): known credits earned	25,910	98.55	97.96	99.22	99.13	98.48	99.22	96.83	98.18	93.41	98.73	99.08
QTTRANRESP	Transcript: Transcript response status	25,910	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
QTUGDEG	Base year: Undergraduate degree program 2011–12	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93
QTUGDEGAA	Base year: Associate's degree type 2011–12	25,910	95.58	96.19	92.97	96.56	98.84	85.64	98.92	93.79	95.11	98.32	97.93

See notes at end of table.

Table F-1. Weighted item response rates for all students, by control and level of institution: 2012–17—Continued

Variable	Variable label	Sample size	All students	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate-granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTYR1ATT	Transcript: First-year enrollment: known credits attempted	25,910	96.76	93.97	98.12	98.43	97.28	98.46	96.21	96.64	80.46	94.42	95.97
QTYR1ERN	Transcript: First-year enrollment: known credits earned	25,910	96.57	93.97	97.81	98.28	97.28	98.46	96.21	96.64	79.17	94.18	95.96
QTYR1GPA	Transcript: First-year enrollment: GPA	24,510	95.85	56.25	97.73	98.29	97.23	96.43	96.07	96.57	65.42	91.51	95.54
QTYR2ATT	Transcript: Second-year enrollment: known credits attempted	17,950	95.58	86.96	97.00	97.92	96.90	96.67	95.56	96.23	64.06	88.88	92.65
QTYR2ENROLL	Transcript: Enrolled in second 12 months	25,910	96.95	94.17	98.18	98.43	97.28	98.46	96.82	96.64	83.36	94.69	95.99
QTYR2ERN	Transcript: Second-year enrollment: known credits earned	17,950	95.48	86.96	96.86	97.85	96.90	96.67	95.50	96.22	62.68	88.88	92.65
QTYR2GPA	Transcript: Second-year enrollment: GPA	17,370	94.75	79.65	96.56	97.63	96.82	96.55	95.50	96.22	44.08	84.96	92.17
QTYR3ENROLL	Transcript: Enrolled in third 12 months	25,910	96.95	94.17	98.18	98.43	97.28	98.46	96.82	96.64	83.36	94.69	95.99
QTYR4ENROLL	Transcript: Enrolled in fourth 12 months	25,910	96.95	94.17	98.18	98.43	97.28	98.46	96.82	96.64	83.36	94.69	95.99
QTYR5ENROLL	Transcript: Enrolled in fifth 12 months	25,910	96.95	94.17	98.18	98.43	97.28	98.46	96.82	96.64	83.36	94.69	95.99
QTYR6ENROLL	Transcript: Enrolled in sixth 12 months	25,910	96.95	94.17	98.18	98.43	97.28	98.46	96.82	96.64	83.36	94.69	95.99

‡ Reporting standards not met.
NOTE: AP = Advanced Placement; CIP = Classification of Instructional Programs; CLEP = College Level Examination Program; CTE = career and technical education; GPA = grade point average; IB= International Baccalaureate; IPEDS = Integrated Postsecondary Education Data System; NCES = National Center for Education Statistics; NSF = National Science Foundation; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Sample sizes rounded to the nearest 10. Percentages are based on unrounded numbers. Weighted response rates calculated using base weight adjusted for unknown eligibility.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

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Table G-1. Design effects, using WTC000, for selected variables for all first-time beginning students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	54.72	1.15	0.31	3.71	13.75
Received an undergraduate certificate/diploma	QTCERTCRED>0	9.23	0.58	0.18	3.19	10.21
Received an associate's degree	QTASSOCCRED>0	11.32	0.49	0.20	2.48	6.15
Received a bachelor's degree	QTBACCRED>0	30.12	1.35	0.29	4.72	22.32
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	45.87	1.31	0.31	4.23	17.91
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	16.26	0.65	0.35	1.88	3.53
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	45.11	1.76	0.32	5.50	30.24
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	63.90	2.29	0.89	2.58	6.67
Had more than 44 months from known entry to first award	QTPS2AWD1>44	56.49	1.48	0.47	3.15	9.93
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.46	0.99	0.50	1.99	3.97
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	51.45	3.64	0.95	3.82	14.62
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	24.58	0.70	0.35	1.99	3.94
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	43.57	0.90	0.32	2.86	8.15
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	43.94	0.81	0.32	2.51	6.31
Ever enrolled in summer terms	QTSUMENROLL=1	46.48	0.85	0.31	2.72	7.40
Attempted at least nine credits in summer terms	QTSUMATT>=9	48.65	1.00	0.46	2.19	4.79
Earned at least seven credits during summer terms	QTSUMERN >=7	49.78	0.96	0.46	2.11	4.46
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	59.66	1.63	0.31	5.26	27.62
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	51.18	1.40	0.32	4.41	19.47
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	63.69	1.36	0.30	4.46	19.88
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	55.65	1.23	0.31	3.97	15.78
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	53.05	1.28	0.31	4.11	16.92
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	58.54	1.08	0.33	3.23	10.46
Received noncourse credit	QTEVERNCCRD=1	14.72	0.57	0.22	2.59	6.71
Took more than two remedial courses	QTREMTOT>2	40.51	1.01	0.47	2.14	4.58
Took remedial English courses	QTREMENTOT>1	35.28	1.83	0.72	2.54	6.43
Passed remedial English courses	QTREMENGPS>0	76.16	1.84	0.64	2.85	8.13
Took remedial mathematics courses	QTREMMTTOT>1	50.89	1.25	0.53	2.35	5.53
Passed remedial mathematics courses	QTREMMTHPS>0	76.20	1.32	0.45	2.92	8.53
Summary statistics						
Mean		†	†	†	†	3.19	11.19
Minimum		†	†	†	†	1.88	3.53
25th percentile		†	†	†	†	2.48	6.15
Median		†	†	†	†	2.86	8.15
75th percentile		†	†	†	†	3.97	15.78
Maximum		†	†	†	†	5.50	30.24

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-2. Design effects, using WTC000, for selected variables for first-time beginning students whose base-year institution was public 2-year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	49.69	1.05	0.52	2.00	4.01
Received an undergraduate certificate/diploma	QTCERTCRED>0	9.50	0.58	0.31	1.87	3.51
Received an associate's degree	QTASSOCCRED>0	18.35	0.99	0.41	2.44	5.93
Received a bachelor's degree	QTBACCRED>0	9.28	0.62	0.30	2.05	4.19
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	29.05	1.13	0.48	2.37	5.64
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	11.19	0.80	0.59	1.35	1.82
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	52.08	2.24	0.54	4.16	17.28
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	70.57	1.93	1.16	1.66	2.76
Had more than 44 months from known entry to first award	QTPS2AWD1>44	37.61	1.64	0.92	1.78	3.18
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	78.23	2.53	1.49	1.70	2.89
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	78.02	2.52	1.24	2.02	4.09
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	33.39	1.14	0.61	1.87	3.50
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	32.03	0.79	0.50	1.57	2.47
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	34.31	0.91	0.52	1.75	3.08
Ever enrolled in summer terms	QTSUMENROLL=1	41.39	1.17	0.52	2.27	5.16
Attempted at least nine credits in summer terms	QTSUMATT>=9	46.67	1.48	0.79	1.87	3.48
Earned at least seven credits during summer terms	QTSUMERN >=7	47.32	1.44	0.79	1.81	3.29
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	39.75	1.82	0.51	3.54	12.52
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	29.16	1.37	0.48	2.86	8.20
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	50.36	1.91	0.52	3.63	13.21
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	42.21	1.45	0.52	2.81	7.89
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	38.07	1.47	0.51	2.90	8.38
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	49.33	1.52	0.56	2.71	7.33
Received noncourse credit	QTEVERNCCRD=1	4.85	0.41	0.22	1.81	3.29
Took more than two remedial courses	QTREMTOT>2	47.99	1.15	0.66	1.75	3.05
Took remedial English courses	QTREMENTOT>1	38.25	2.08	0.97	2.15	4.61
Passed remedial English courses	QTREMENGPS>0	75.35	2.10	0.86	2.45	5.98
Took remedial mathematics courses	QTREMMTTOT>1	56.06	1.53	0.71	2.15	4.62
Passed remedial mathematics courses	QTREMMTHPS>0	74.22	1.47	0.63	2.35	5.50
Summary statistics						
Mean		†	†	†	†	2.26	5.55
Minimum		†	†	†	†	1.35	1.82
25th percentile		†	†	†	†	1.81	3.29
Median		†	†	†	†	2.05	4.19
75th percentile		†	†	†	†	2.45	5.98
Maximum		†	†	†	†	4.16	17.28

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-3. Design effects, using WTC000, for selected variables for first-time beginning students whose base-year institution was public 4-year, non-doctorate-granting or public 4-year, doctorate-granting: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	62.26	1.42	0.70	2.03	4.13
Received an undergraduate certificate/diploma	QTCERTCRED>0	3.01	0.31	0.25	1.24	1.54
Received an associate's degree	QTASSOCCRED>0	7.05	0.50	0.37	1.36	1.84
Received a bachelor's degree	QTBACCRED>0	51.95	1.23	0.72	1.70	2.91
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	58.40	1.19	0.71	1.67	2.78
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	21.94	1.18	0.77	1.53	2.33
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	26.36	1.46	0.65	2.25	5.04
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	66.18	4.33	2.42	1.79	3.20
Had more than 44 months from known entry to first award	QTPS2AWD1>44	76.68	1.27	0.80	1.60	2.56
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	83.68	1.21	0.74	1.63	2.66
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	89.26	2.83	2.62	1.08	1.17
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	22.22	1.56	0.99	1.58	2.48
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	48.45	1.20	0.73	1.64	2.69
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	46.23	1.27	0.73	1.73	3.00
Ever enrolled in summer terms	QTSUMENROLL=1	58.18	1.03	0.72	1.44	2.07
Attempted at least nine credits in summer terms	QTSUMATT>=9	52.70	1.31	0.93	1.40	1.97
Earned at least seven credits during summer terms	QTSUMERN >=7	54.02	1.49	0.93	1.60	2.56
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	78.60	1.39	0.60	2.32	5.39
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	68.45	1.46	0.68	2.14	4.59
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	76.98	1.07	0.62	1.74	3.02
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	75.69	1.14	0.62	1.83	3.33
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	72.58	1.24	0.65	1.91	3.63
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	73.06	1.14	0.66	1.74	3.02
Received noncourse credit	QTEVERNCCRD=1	27.05	1.10	0.65	1.71	2.91
Took more than two remedial courses	QTREMTOT>2	30.16	2.50	1.21	2.08	4.31
Took remedial English courses	QTREMENTOT>1	30.43	4.21	2.15	1.96	3.83
Passed remedial English courses	QTREMENGPS>0	79.57	3.61	1.89	1.91	3.66
Took remedial mathematics courses	QTREMMTTOT>1	47.81	2.47	1.43	1.73	2.98
Passed remedial mathematics courses	QTREMMTHPS>0	79.68	2.03	1.15	1.76	3.11
Summary statistics						
Mean		†	†	†	1.73	3.06
Minimum		†	†	†	1.08	1.17
25th percentile		†	†	†	1.60	2.56
Median		†	†	†	1.73	2.98
75th percentile		†	†	†	1.91	3.63
Maximum		†	†	†	2.32	5.39

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-4. Design effects, using WTC000, for selected variables for first-time beginning students whose base-year institution was private nonprofit 4-year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	57.24	1.58	0.74	2.15	4.61
Received an undergraduate certificate/diploma	QTCERTCRED>0	1.72	0.34	0.19	1.75	3.06
Received an associate's degree	QTASSOCCRED>0	3.33	0.47	0.27	1.75	3.06
Received a bachelor's degree	QTBACCRED>0	64.26	3.30	0.71	4.61	21.28
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	67.41	3.32	0.70	4.75	22.55
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	19.62	1.54	0.73	2.10	4.43
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	31.34	2.88	0.70	4.08	16.68
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	58.96	7.05	3.59	1.97	3.87
Had more than 44 months from known entry to first award	QTPS2AWD1>44	72.45	2.04	0.83	2.47	6.12
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	75.32	2.05	0.83	2.48	6.13
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	90.02	3.15	2.68	1.18	1.38
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	14.81	1.67	0.83	2.02	4.08
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	63.39	1.97	0.73	2.69	7.23
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	61.60	1.87	0.75	2.50	6.26
Ever enrolled in summer terms	QTSUMENROLL=1	46.75	2.21	0.75	2.94	8.63
Attempted at least nine credits in summer terms	QTSUMATT>=9	40.44	1.84	1.06	1.74	3.03
Earned at least seven credits during summer terms	QTSUMERN >=7	45.31	2.11	1.07	1.96	3.85
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	83.50	3.54	0.56	6.30	39.74
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	80.53	3.63	0.60	6.06	36.66
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	83.10	2.67	0.57	4.71	22.21
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	82.68	3.93	0.57	6.89	47.48
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	81.10	3.90	0.59	6.61	43.70
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	67.82	2.02	0.73	2.77	7.67
Received noncourse credit	QTEVERNCCRD=1	26.85	1.81	0.67	2.71	7.34
Took more than two remedial courses	QTREMTOT>2	24.86	3.26	1.44	2.26	5.13
Took remedial English courses	QTREMENTOT>1	21.68	5.44	2.71	2.01	4.04
Passed remedial English courses	QTREMENGPS>0	88.85	7.67	2.07	3.71	13.79
Took remedial mathematics courses	QTREMMTTOT>1	37.57	3.80	1.80	2.11	4.47
Passed remedial mathematics courses	QTREMMTHPS>0	86.54	4.03	1.27	3.18	10.13
Summary statistics						
Mean		†	†	†	†	3.19	12.71
Minimum		†	†	†	†	1.18	1.38
25th percentile		†	†	†	†	2.02	4.08
Median		†	†	†	†	2.50	6.26
75th percentile		†	†	†	†	4.08	16.68
Maximum		†	†	†	†	6.89	47.48

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-5. Design effects, using WTC000, for selected variables for first-time beginning students whose base-year institution was private for-profit less-than-2–year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	57.27	13.14	1.92	6.85	46.87
Received an undergraduate certificate/diploma	QTCERTCRED>0	51.67	14.81	1.95	7.62	57.99
Received an associate's degree	QTASSOCCRED>0	0.98	0.74	0.38	1.93	3.71
Received a bachelor's degree	QTBACCRED>0	#	#	#	†	†
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	52.16	14.93	1.94	7.68	58.94
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	0.54	0.71	0.41	1.74	3.03
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	74.47	7.01	1.86	3.77	14.20
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	55.44	22.58	13.28	1.70	2.89
Had more than 44 months from known entry to first award	QTPS2AWD1>44	#	#	#	†	†
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	100.00	0.00	0.00	†	†
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	19.12	9.24	2.23	4.15	17.24
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	8.19	2.92	1.25	2.34	5.47
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	52.73	5.12	2.07	2.47	6.11
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	55.40	6.20	2.36	2.63	6.90
Ever enrolled in summer terms	QTSUMENROLL=1	21.39	6.07	1.61	3.78	14.26
Attempted at least nine credits in summer terms	QTSUMATT>=9	39.02	10.48	3.44	3.05	9.29
Earned at least seven credits during summer terms	QTSUMERN >=7	33.15	11.57	3.33	3.47	12.07
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	33.62	6.91	1.99	3.47	12.04
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	32.40	6.91	1.99	3.48	12.09
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	46.30	6.75	2.14	3.16	9.97
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	10.96	2.38	1.24	1.91	3.67
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	11.20	2.80	1.27	2.21	4.89
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	33.28	6.87	2.50	2.75	7.57
Received noncourse credit	QTEVERNCCRD=1	#	#	#	†	†
Took more than two remedial courses	QTREMTOT>2	28.50	9.98	3.04	3.28	10.76
Took remedial English courses	QTREMENTOT>1	54.20	9.81	6.23	1.58	2.48
Passed remedial English courses	QTREMENGPS>0	81.67	6.08	4.84	1.26	1.58
Took remedial mathematics courses	QTREMMTTOT>1	35.33	17.54	3.52	4.98	24.79
Passed remedial mathematics courses	QTREMMTHPS>0	90.83	13.20	2.13	6.20	38.50
Summary statistics						
Mean		†	†	†	3.50	15.49
Minimum		†	†	†	1.26	1.58
25th percentile		†	†	†	2.21	4.89
Median		†	†	†	3.16	9.97
75th percentile		†	†	†	3.78	14.26
Maximum		†	†	†	7.68	58.94

† Not applicable.
# Rounds to zero.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-6. Design effects, using WTC000, for selected variables for first-time beginning students whose base-year institution was private for-profit 2-year or 4-year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	47.80	5.21	0.62	8.36	69.87
Received an undergraduate certificate/diploma	QTCERTCRED>0	19.52	2.29	0.50	4.63	21.40
Received an associate's degree	QTASSOCCRED>0	13.66	4.44	0.43	10.33	106.75
Received a bachelor's degree	QTBACCRED>0	7.04	0.94	0.32	2.93	8.56
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	37.99	3.21	0.61	5.28	27.89
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	4.89	1.15	0.46	2.53	6.40
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	85.06	3.31	0.47	7.00	49.02
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	27.09	12.46	1.59	7.84	61.47
Had more than 44 months from known entry to first award	QTPS2AWD1>44	9.97	1.71	0.65	2.64	6.99
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	56.49	6.82	2.06	3.31	10.95
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	12.69	2.64	1.07	2.46	6.05
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	14.38	1.87	0.52	3.62	13.08
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	40.00	3.92	0.64	6.18	38.18
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	44.13	3.93	0.67	5.83	34.02
Ever enrolled in summer terms	QTSUMENROLL=1	44.47	4.42	0.62	7.08	50.13
Attempted at least nine credits in summer terms	QTSUMATT>=9	55.56	3.97	0.95	4.17	17.38
Earned at least seven credits during summer terms	QTSUMERN >=7	52.99	3.85	0.96	4.02	16.17
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	53.52	3.94	0.65	6.09	37.14
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	47.48	4.62	0.65	7.13	50.81
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	53.02	3.74	0.64	5.80	33.60
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	27.41	5.11	0.56	9.11	83.04
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	28.35	4.65	0.57	8.21	67.47
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	33.04	6.38	0.70	9.08	82.48
Received noncourse credit	QTEVERNCCRD=1	4.41	1.16	0.26	4.49	20.12
Took more than two remedial courses	QTREMTOT>2	27.83	3.19	0.93	3.41	11.65
Took remedial English courses	QTREMENTOT>1	26.31	6.56	1.34	4.89	23.94
Passed remedial English courses	QTREMENGPS>0	72.86	5.61	1.35	4.15	17.20
Took remedial mathematics courses	QTREMMTTOT>1	32.78	6.25	1.12	5.58	31.15
Passed remedial mathematics courses	QTREMMTHPS>0	68.23	7.52	1.11	6.77	45.79
Summary statistics						
Mean		†	†	†	†	5.62	36.16
Minimum		†	†	†	†	2.46	6.05
25th percentile		†	†	†	†	4.02	16.17
Median		†	†	†	†	5.58	31.15
75th percentile		†	†	†	†	7.08	50.13
Maximum		†	†	†	†	10.33	106.75

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-7. Design effects, using WTC000, for selected variables for first-time beginning students whose base-year institution was public less-than-2-year or private nonprofit less-than-4–year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	48.63	11.83	2.59	4.56	20.80
Received an undergraduate certificate/diploma	QTCERTCRED>0	34.21	8.46	2.47	3.43	11.77
Received an associate's degree	QTASSOCCRED>0	6.51	2.23	1.28	1.73	3.01
Received a bachelor's degree	QTBACCRED>0	5.63	2.34	1.20	1.95	3.80
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	45.09	7.58	2.59	2.93	8.58
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	9.69	6.05	2.28	2.65	7.03
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	85.15	3.27	1.93	1.70	2.88
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	65.06	21.27	8.30	2.56	6.56
Had more than 44 months from known entry to first award	QTPS2AWD1>44	6.47	2.79	1.97	1.42	2.00
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	30.52	22.19	8.41	2.64	6.97
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	39.35	13.83	4.81	2.87	8.26
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	14.55	6.46	2.23	2.90	8.43
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	38.57	9.50	2.91	3.27	10.66
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	40.53	11.51	3.14	3.67	13.47
Ever enrolled in summer terms	QTSUMENROLL=1	17.90	4.93	2.00	2.46	6.06
Attempted at least nine credits in summer terms	QTSUMATT>=9	36.20	10.94	4.98	2.20	4.82
Earned at least seven credits during summer terms	QTSUMERN >=7	37.57	9.15	5.02	1.82	3.32
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	53.37	6.33	2.66	2.38	5.65
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	44.11	6.91	2.65	2.61	6.80
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	54.26	6.51	2.65	2.46	6.04
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	23.32	5.51	2.21	2.49	6.19
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	28.22	7.01	2.36	2.97	8.84
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	37.61	7.79	3.17	2.45	6.02
Received noncourse credit	QTEVERNCCRD=1	7.52	4.56	1.38	3.31	10.93
Took more than two remedial courses	QTREMTOT>2	23.97	9.28	4.31	2.15	4.64
Took remedial English courses	QTREMENTOT>1	19.66	14.24	6.28	2.27	5.13
Passed remedial English courses	QTREMENGPS>0	33.47	22.67	7.46	3.04	9.23
Took remedial mathematics courses	QTREMMTTOT>1	34.00	10.58	5.20	2.03	4.14
Passed remedial mathematics courses	QTREMMTHPS>0	72.96	7.12	4.88	1.46	2.13
Summary statistics						
Mean		†	†	†	2.56	7.04
Minimum		†	†	†	1.42	2.00
25th percentile		†	†	†	2.15	4.64
Median		†	†	†	2.49	6.19
75th percentile		†	†	†	2.93	8.58
Maximum		†	†	†	4.56	20.80

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-8. Design effects, using WTC000, for selected variables for first-time beginning male students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	49.43	1.44	0.48	2.99	8.97
Received an undergraduate certificate/diploma	QTCERTCRED>0	7.39	0.68	0.25	2.68	7.19
Received an associate's degree	QTASSOCCRED>0	11.14	0.98	0.30	3.22	10.35
Received a bachelor's degree	QTBACCRED>0	28.15	1.55	0.43	3.58	12.82
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	42.22	1.20	0.48	2.51	6.32
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	25.93	1.30	0.65	1.99	3.95
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	44.53	2.06	0.49	4.19	17.59
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	64.81	5.40	1.36	3.96	15.69
Had more than 44 months from known entry to first award	QTPS2AWD1>44	58.85	2.44	0.74	3.30	10.88
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	81.19	1.34	0.77	1.75	3.05
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	56.70	5.31	1.53	3.47	12.06
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	24.66	1.18	0.54	2.20	4.82
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	36.71	1.15	0.47	2.42	5.85
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	37.68	1.24	0.49	2.55	6.53
Ever enrolled in summer terms	QTSUMENROLL=1	44.76	1.01	0.48	2.09	4.38
Attempted at least nine credits in summer terms	QTSUMATT>=9	47.40	1.57	0.72	2.19	4.79
Earned at least seven credits during summer terms	QTSUMERN >=7	47.37	1.61	0.72	2.24	5.00
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	60.10	1.66	0.48	3.48	12.13
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	51.25	1.55	0.49	3.17	10.05
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	63.18	1.43	0.47	3.04	9.21
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	55.52	1.62	0.48	3.38	11.40
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	52.80	1.51	0.48	3.13	9.78
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	59.11	1.24	0.52	2.38	5.68
Received noncourse credit	QTEVERNCCRD=1	15.30	0.88	0.35	2.52	6.36
Took more than two remedial courses	QTREMTOT>2	38.72	1.51	0.74	2.05	4.21
Took remedial English courses	QTREMENTOT>1	37.87	2.25	1.12	2.01	4.03
Passed remedial English courses	QTREMENGPS>0	75.03	2.27	1.00	2.27	5.16
Took remedial mathematics courses	QTREMMTTOT>1	48.35	1.66	0.84	1.98	3.93
Passed remedial mathematics courses	QTREMMTHPS>0	72.00	2.08	0.75	2.76	7.64
Summary statistics						
Mean		†	†	†	†	2.74	7.92
Minimum		†	†	†	†	1.75	3.05
25th percentile		†	†	†	†	2.20	4.82
Median		†	†	†	†	2.55	6.53
75th percentile		†	†	†	†	3.22	10.35
Maximum		†	†	†	†	4.19	17.59

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-9. Design effects, using WTC000, for selected variables for first-time beginning female students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	59.75	1.15	0.41	2.77	7.68
Received an undergraduate certificate/diploma	QTCERTCRED>0	11.03	0.88	0.27	3.31	10.93
Received an associate's degree	QTASSOCCRED>0	12.01	0.68	0.28	2.47	6.11
Received a bachelor's degree	QTBACCRED>0	33.10	1.17	0.40	2.93	8.59
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	50.83	1.47	0.42	3.48	12.14
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	10.09	0.61	0.37	1.65	2.72
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	43.39	1.36	0.43	3.16	9.97
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	63.45	3.54	1.18	3.00	9.02
Had more than 44 months from known entry to first award	QTPS2AWD1>44	55.37	1.58	0.62	2.56	6.57
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	78.85	1.14	0.65	1.74	3.02
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	48.32	4.44	1.24	3.56	12.71
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	24.15	0.98	0.49	2.02	4.07
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	49.78	1.33	0.43	3.07	9.43
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	50.07	1.27	0.45	2.84	8.07
Ever enrolled in summer terms	QTSUMENROLL=1	48.84	1.04	0.43	2.44	5.97
Attempted at least nine credits in summer terms	QTSUMATT>=9	49.97	1.30	0.60	2.15	4.63
Earned at least seven credits during summer terms	QTSUMERN >=7	52.04	1.27	0.60	2.10	4.43
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	61.66	1.51	0.42	3.61	13.01
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	53.18	1.26	0.43	2.94	8.61
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	66.27	1.36	0.41	3.33	11.06
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	57.66	1.02	0.42	2.44	5.94
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	55.23	1.18	0.42	2.80	7.82
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	59.45	1.14	0.45	2.53	6.41
Received noncourse credit	QTEVERNCCRD=1	14.62	0.55	0.30	1.83	3.34
Took more than two remedial courses	QTREMTOT>2	41.71	1.24	0.64	1.93	3.72
Took remedial English courses	QTREMENTOT>1	32.86	2.51	0.98	2.57	6.62
Passed remedial English courses	QTREMENGPS>0	77.81	2.77	0.86	3.21	10.30
Took remedial mathematics courses	QTREMMTTOT>1	52.59	1.59	0.71	2.22	4.94
Passed remedial mathematics courses	QTREMMTHPS>0	80.03	1.24	0.57	2.16	4.68
Summary statistics						
Mean		†	†	†	†	2.65	7.33
Minimum		†	†	†	†	1.65	2.72
25th percentile		†	†	†	†	2.16	4.68
Median		†	†	†	†	2.57	6.62
75th percentile		†	†	†	†	3.07	9.43
Maximum		†	†	†	†	3.61	13.01

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-10. Design effects, using WTC000, for selected variables for first-time beginning White students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	53.82	0.99	0.43	2.31	5.31
Received an undergraduate certificate/diploma	QTCERTCRED>0	8.46	0.59	0.24	2.48	6.17
Received an associate's degree	QTASSOCCRED>0	12.20	0.54	0.28	1.93	3.74
Received a bachelor's degree	QTBACCRED>0	36.71	1.47	0.41	3.56	12.65
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	51.67	1.59	0.43	3.70	13.70
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	16.84	0.86	0.46	1.89	3.55
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	41.07	2.01	0.43	4.63	21.47
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	62.81	2.20	1.19	1.85	3.41
Had more than 44 months from known entry to first award	QTPS2AWD1>44	59.07	1.34	0.60	2.22	4.94
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.08	1.09	0.63	1.73	3.00
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	58.48	4.10	1.29	3.18	10.09
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	22.46	0.97	0.49	2.00	3.98
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	50.96	0.94	0.44	2.15	4.60
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	50.01	0.91	0.45	2.02	4.09
Ever enrolled in summer terms	QTSUMENROLL=1	47.79	0.88	0.43	2.04	4.17
Attempted at least nine credits in summer terms	QTSUMATT>=9	47.71	1.09	0.62	1.77	3.13
Earned at least seven credits during summer terms	QTSUMERN >=7	50.68	1.20	0.62	1.95	3.80
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	65.28	1.70	0.42	4.10	16.81
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	58.57	1.56	0.43	3.62	13.13
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	68.96	1.39	0.40	3.45	11.89
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	61.40	1.47	0.42	3.50	12.22
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	59.67	1.54	0.42	3.65	13.29
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	62.43	1.16	0.45	2.57	6.62
Received noncourse credit	QTEVERNCCRD=1	16.97	0.70	0.32	2.16	4.67
Took more than two remedial courses	QTREMTOT>2	32.59	1.44	0.67	2.15	4.61
Took remedial English courses	QTREMENTOT>1	27.80	1.98	1.11	1.78	3.19
Passed remedial English courses	QTREMENGPS>0	78.30	2.28	1.02	2.23	4.97
Took remedial mathematics courses	QTREMMTTOT>1	46.85	1.45	0.78	1.86	3.46
Passed remedial mathematics courses	QTREMMTHPS>0	77.66	1.39	0.65	2.14	4.56
Summary statistics						
Mean		†	†	†	†	2.57	7.28
Minimum		†	†	†	†	1.73	3.00
25th percentile		†	†	†	†	1.95	3.80
Median		†	†	†	†	2.16	4.67
75th percentile		†	†	†	†	3.45	11.89
Maximum		†	†	†	†	4.63	21.47

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-11. Design effects, using WTC000, for selected variables for first-time beginning Black or African American students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	57.06	3.78	0.79	4.80	23.02
Received an undergraduate certificate/diploma	QTCERTCRED>0	9.47	1.46	0.47	3.12	9.76
Received an associate's degree	QTASSOCCRED>0	9.65	2.05	0.47	4.36	19.05
Received a bachelor's degree	QTBACCRED>0	16.49	1.58	0.59	2.67	7.12
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	32.95	1.90	0.75	2.54	6.45
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	8.73	1.22	0.81	1.51	2.28
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	52.82	1.85	0.82	2.26	5.10
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	60.58	9.16	2.51	3.64	13.28
Had more than 44 months from known entry to first award	QTPS2AWD1>44	50.44	4.24	1.44	2.95	8.68
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	85.65	2.12	1.51	1.40	1.97
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	38.68	8.11	2.41	3.37	11.37
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	24.32	1.88	0.83	2.27	5.15
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	22.08	2.09	0.68	3.05	9.32
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	25.36	2.32	0.73	3.16	10.00
Ever enrolled in summer terms	QTSUMENROLL=1	42.05	2.88	0.79	3.64	13.28
Attempted at least nine credits in summer terms	QTSUMATT>=9	54.53	3.09	1.22	2.54	6.46
Earned at least seven credits during summer terms	QTSUMERN >=7	47.94	3.07	1.22	2.52	6.34
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	51.77	2.86	0.81	3.54	12.55
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	38.00	2.17	0.79	2.76	7.64
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	47.15	2.21	0.81	2.74	7.49
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	42.70	2.09	0.79	2.64	6.97
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	38.57	2.10	0.78	2.68	7.20
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	46.56	2.58	0.88	2.93	8.59
Received noncourse credit	QTEVERNCCRD=1	5.19	1.14	0.36	3.20	10.21
Took more than two remedial courses	QTREMTOT>2	50.33	3.52	1.10	3.21	10.33
Took remedial English courses	QTREMENTOT>1	43.08	4.60	1.49	3.09	9.53
Passed remedial English courses	QTREMENGPS>0	67.13	3.65	1.41	2.58	6.67
Took remedial mathematics courses	QTREMMTTOT>1	54.35	5.03	1.21	4.14	17.15
Passed remedial mathematics courses	QTREMMTHPS>0	66.20	2.97	1.15	2.57	6.62
Summary statistics						
Mean		†	†	†	†	2.96	9.30
Minimum		†	†	†	†	1.40	1.97
25th percentile		†	†	†	†	2.57	6.62
Median		†	†	†	†	2.93	8.59
75th percentile		†	†	†	†	3.21	10.33
Maximum		†	†	†	†	4.80	23.02

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-12. Design effects, using WTC000, for selected variables for first-time beginning Hispanic or Latino students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	57.00	2.43	0.72	3.40	11.55
Received an undergraduate certificate/diploma	QTCERTCRED>0	13.22	1.65	0.49	3.36	11.30
Received an associate's degree	QTASSOCCRED>0	13.11	1.99	0.49	4.08	16.61
Received a bachelor's degree	QTBACCRED>0	19.30	1.27	0.57	2.22	4.92
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	40.75	2.18	0.71	3.07	9.42
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	13.26	1.29	0.76	1.69	2.86
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	47.08	2.62	0.75	3.51	12.33
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	65.09	8.43	1.89	4.47	19.99
Had more than 44 months from known entry to first award	QTPS2AWD1>44	43.91	3.40	1.13	3.01	9.06
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.22	2.39	1.34	1.78	3.17
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	41.85	7.36	2.01	3.66	13.39
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	29.10	2.11	0.86	2.46	6.04
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	37.34	1.94	0.72	2.72	7.38
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	39.41	2.08	0.75	2.78	7.72
Ever enrolled in summer terms	QTSUMENROLL=1	44.81	1.95	0.72	2.70	7.28
Attempted at least nine credits in summer terms	QTSUMATT>=9	47.63	2.52	1.07	2.35	5.53
Earned at least seven credits during summer terms	QTSUMERN >=7	48.77	2.47	1.07	2.30	5.29
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	51.14	1.95	0.74	2.63	6.91
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	41.46	1.92	0.73	2.63	6.92
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	62.08	1.93	0.72	2.68	7.17
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	48.38	1.84	0.73	2.53	6.41
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	44.44	1.68	0.72	2.33	5.41
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	53.87	1.80	0.79	2.27	5.17
Received noncourse credit	QTEVERNCCRD=1	13.08	1.08	0.49	2.21	4.89
Took more than two remedial courses	QTREMTOT>2	48.16	2.32	1.03	2.25	5.06
Took remedial English courses	QTREMENTOT>1	35.85	2.82	1.47	1.92	3.69
Passed remedial English courses	QTREMENGPS>0	81.64	2.74	1.19	2.31	5.34
Took remedial mathematics courses	QTREMMTTOT>1	56.98	2.63	1.12	2.34	5.48
Passed remedial mathematics courses	QTREMMTHPS>0	79.83	1.86	0.91	2.04	4.16
Summary statistics						
Mean		†	†	†	†	2.68	7.60
Minimum		†	†	†	†	1.69	2.86
25th percentile		†	†	†	†	2.27	5.17
Median		†	†	†	†	2.53	6.41
75th percentile		†	†	†	†	3.01	9.06
Maximum		†	†	†	†	4.47	19.99

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-13. Design effects, using WTC000, for selected variables for first-time beginning Asian students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	57.17	2.57	1.46	1.77	3.12
Received an undergraduate certificate/diploma	QTCERTCRED>0	5.42	1.45	0.67	2.18	4.74
Received an associate's degree	QTASSOCCRED>0	9.02	1.31	0.84	1.55	2.41
Received a bachelor's degree	QTBACCRED>0	53.50	2.74	1.47	1.86	3.46
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	63.62	2.73	1.42	1.92	3.70
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	34.40	3.34	1.81	1.85	3.43
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	37.61	3.16	1.46	2.16	4.69
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	80.97	5.60	3.69	1.52	2.30
Had more than 44 months from known entry to first award	QTPS2AWD1>44	72.22	3.08	1.72	1.80	3.23
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.18	3.13	1.75	1.79	3.21
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	75.57	8.28	5.00	1.66	2.75
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	23.19	2.97	1.87	1.59	2.53
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	58.60	2.95	1.48	1.99	3.97
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	55.94	3.23	1.51	2.14	4.57
Ever enrolled in summer terms	QTSUMENROLL=1	61.13	3.39	1.44	2.35	5.52
Attempted at least nine credits in summer terms	QTSUMATT>=9	53.20	3.29	1.97	1.67	2.80
Earned at least seven credits during summer terms	QTSUMERN >=7	55.04	3.20	1.96	1.63	2.66
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	74.84	3.23	1.29	2.49	6.22
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	66.56	3.12	1.41	2.22	4.92
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	82.28	2.32	1.14	2.04	4.14
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	76.46	2.96	1.26	2.35	5.53
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	75.17	2.99	1.28	2.33	5.42
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	78.62	2.35	1.28	1.83	3.34
Received noncourse credit	QTEVERNCCRD=1	30.03	2.44	1.36	1.79	3.21
Took more than two remedial courses	QTREMTOT>2	41.47	4.34	2.52	1.73	2.98
Took remedial English courses	QTREMENTOT>1	50.12	7.21	3.74	1.93	3.72
Passed remedial English courses	QTREMENGPS>0	88.60	4.27	2.38	1.80	3.23
Took remedial mathematics courses	QTREMMTTOT>1	43.36	4.90	3.10	1.58	2.50
Passed remedial mathematics courses	QTREMMTHPS>0	85.42	3.69	2.21	1.67	2.79
Summary statistics						
Mean		†	†	†	1.90	3.69
Minimum		†	†	†	1.52	2.30
25th percentile		†	†	†	1.67	2.80
Median		†	†	†	1.83	3.34
75th percentile		†	†	†	2.14	4.57
Maximum		†	†	†	2.49	6.22

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-14. Design effects, using WTC000, for selected variables for first-time beginning students of other race/ethnicities, including more than one race: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	54.72	2.51	1.37	1.83	3.35
Received an undergraduate certificate/diploma	QTCERTCRED>0	9.82	1.82	0.82	2.21	4.89
Received an associate's degree	QTASSOCCRED>0	8.29	1.21	0.76	1.59	2.53
Received a bachelor's degree	QTBACCRED>0	26.88	2.08	1.23	1.70	2.88
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	41.09	2.63	1.36	1.93	3.73
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	12.81	2.43	1.50	1.63	2.65
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	44.73	2.82	1.41	2.00	4.01
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	70.34	6.33	4.12	1.54	2.36
Had more than 44 months from known entry to first award	QTPS2AWD1>44	60.88	3.97	2.20	1.80	3.25
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	83.02	4.24	2.20	1.93	3.71
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	51.57	8.65	4.49	1.93	3.72
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	27.13	3.77	1.56	2.41	5.81
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	35.56	2.64	1.36	1.94	3.75
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	40.95	2.89	1.43	2.03	4.11
Ever enrolled in summer terms	QTSUMENROLL=1	46.10	2.81	1.38	2.03	4.12
Attempted at least nine credits in summer terms	QTSUMATT>=9	46.18	3.96	2.02	1.96	3.85
Earned at least seven credits during summer terms	QTSUMERN >=7	46.23	3.65	2.02	1.81	3.27
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	60.90	3.20	1.37	2.33	5.45
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	49.12	2.60	1.41	1.85	3.41
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	63.03	2.65	1.36	1.95	3.81
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	55.15	2.56	1.38	1.86	3.44
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	51.70	2.75	1.39	1.98	3.92
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	57.25	2.91	1.50	1.94	3.76
Received noncourse credit	QTEVERNCCRD=1	11.72	1.94	0.89	2.18	4.74
Took more than two remedial courses	QTREMTOT>2	41.71	4.36	2.04	2.14	4.58
Took remedial English courses	QTREMENTOT>1	33.60	7.54	3.17	2.38	5.66
Passed remedial English courses	QTREMENGPS>0	71.90	8.82	3.02	2.93	8.56
Took remedial mathematics courses	QTREMMTTOT>1	52.40	5.02	2.26	2.22	4.94
Passed remedial mathematics courses	QTREMMTHPS>0	81.15	4.26	1.77	2.41	5.79
Summary statistics						
Mean		†	†	†	†	2.01	4.14
Minimum		†	†	†	†	1.54	2.36
25th percentile		†	†	†	†	1.85	3.41
Median		†	†	†	†	1.95	3.81
75th percentile		†	†	†	†	2.18	4.74
Maximum		†	†	†	†	2.93	8.56

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-15. Design effects, using WTC000, for selected variables for first-time beginning male White students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	47.78	1.36	0.65	2.10	4.43
Received an undergraduate certificate/diploma	QTCERTCRED>0	6.89	0.94	0.33	2.86	8.18
Received an associate's degree	QTASSOCCRED>0	11.84	0.88	0.42	2.11	4.43
Received a bachelor's degree	QTBACCRED>0	33.67	1.80	0.61	2.95	8.67
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	47.42	1.62	0.65	2.51	6.31
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	26.14	1.60	0.83	1.92	3.69
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	42.57	1.99	0.66	3.03	9.18
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	62.60	3.51	1.84	1.91	3.65
Had more than 44 months from known entry to first award	QTPS2AWD1>44	60.06	2.18	0.94	2.33	5.41
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	80.21	1.67	0.96	1.73	3.00
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	57.79	7.99	1.99	4.01	16.05
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	20.98	1.29	0.70	1.85	3.41
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	43.25	1.45	0.65	2.22	4.92
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	42.82	1.59	0.67	2.39	5.71
Ever enrolled in summer terms	QTSUMENROLL=1	44.54	1.28	0.64	1.98	3.91
Attempted at least nine credits in summer terms	QTSUMATT>=9	45.00	1.98	0.96	2.07	4.29
Earned at least seven credits during summer terms	QTSUMERN >=7	47.21	2.09	0.96	2.17	4.73
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	64.62	2.10	0.63	3.34	11.19
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	57.73	1.99	0.65	3.07	9.42
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	66.95	1.68	0.62	2.73	7.47
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	59.13	1.83	0.64	2.86	8.18
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	57.63	1.96	0.64	3.05	9.31
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	61.89	1.56	0.68	2.29	5.25
Received noncourse credit	QTEVERNCCRD=1	17.57	1.04	0.49	2.11	4.46
Took more than two remedial courses	QTREMTOT>2	30.14	1.91	1.02	1.88	3.53
Took remedial English courses	QTREMENTOT>1	30.37	3.18	1.71	1.86	3.47
Passed remedial English courses	QTREMENGPS>0	73.58	3.50	1.64	2.14	4.59
Took remedial mathematics courses	QTREMMTTOT>1	43.18	2.10	1.20	1.75	3.07
Passed remedial mathematics courses	QTREMMTHPS>0	72.51	2.43	1.08	2.25	5.06
Summary statistics						
Mean		†	†	†	†	2.40	6.03
Minimum		†	†	†	†	1.73	3.00
25th percentile		†	†	†	†	1.98	3.91
Median		†	†	†	†	2.22	4.92
75th percentile		†	†	†	†	2.86	8.18
Maximum		†	†	†	†	4.01	16.05

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-16. Design effects, using WTC000, for selected variables for first-time beginning male Black or African American students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	49.19	3.42	1.23	2.78	7.73
Received an undergraduate certificate/diploma	QTCERTCRED>0	6.27	1.39	0.60	2.32	5.38
Received an associate's degree	QTASSOCCRED>0	8.85	1.25	0.70	1.78	3.18
Received a bachelor's degree	QTBACCRED>0	13.75	1.61	0.85	1.89	3.58
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	26.87	2.13	1.09	1.95	3.80
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	12.88	2.37	1.55	1.53	2.34
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	51.35	2.71	1.26	2.15	4.63
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	72.28	6.84	3.55	1.93	3.72
Had more than 44 months from known entry to first award	QTPS2AWD1>44	56.77	4.96	2.32	2.14	4.58
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	89.18	2.38	2.19	1.09	1.18
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	60.50	10.71	4.19	2.55	6.52
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	25.45	2.65	1.28	2.07	4.30
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	16.22	1.66	0.93	1.78	3.16
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	21.43	2.17	1.06	2.06	4.24
Ever enrolled in summer terms	QTSUMENROLL=1	40.79	2.92	1.21	2.41	5.79
Attempted at least nine credits in summer terms	QTSUMATT>=9	51.82	4.31	1.93	2.24	5.01
Earned at least seven credits during summer terms	QTSUMERN >=7	39.67	3.63	1.89	1.92	3.70
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	49.13	3.27	1.24	2.64	6.96
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	34.81	3.06	1.18	2.59	6.68
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	45.87	2.79	1.24	2.25	5.08
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	43.51	2.90	1.22	2.37	5.62
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	37.64	2.73	1.20	2.28	5.21
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	45.03	2.97	1.36	2.18	4.75
Received noncourse credit	QTEVERNCCRD=1	5.50	2.45	0.56	4.35	18.92
Took more than two remedial courses	QTREMTOT>2	48.36	3.66	1.66	2.21	4.86
Took remedial English courses	QTREMENTOT>1	41.35	4.86	2.26	2.15	4.64
Passed remedial English courses	QTREMENGPS>0	67.06	4.07	2.15	1.89	3.58
Took remedial mathematics courses	QTREMMTTOT>1	52.93	4.19	1.86	2.25	5.06
Passed remedial mathematics courses	QTREMMTHPS>0	61.45	4.02	1.82	2.22	4.91
Summary statistics						
Mean		†	†	†	2.21	5.14
Minimum		†	†	†	1.09	1.18
25th percentile		†	†	†	1.93	3.72
Median		†	†	†	2.18	4.75
75th percentile		†	†	†	2.32	5.38
Maximum		†	†	†	4.35	18.92

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-17. Design effects, using WTC000, for selected variables for first-time beginning male Hispanic or Latino students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	53.34	4.32	1.09	3.95	15.57
Received an undergraduate certificate/diploma	QTCERTCRED>0	8.93	1.50	0.63	2.38	5.67
Received an associate's degree	QTASSOCCRED>0	12.23	4.17	0.72	5.77	33.32
Received a bachelor's degree	QTBACCRED>0	17.24	1.77	0.83	2.12	4.50
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	34.00	3.14	1.04	3.01	9.04
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	23.84	3.33	1.53	2.17	4.73
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	48.24	4.10	1.13	3.65	13.29
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	61.36	15.22	2.95	5.17	26.68
Had more than 44 months from known entry to first award	QTPS2AWD1>44	48.14	6.53	1.81	3.60	12.97
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	83.64	2.60	1.94	1.34	1.79
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	46.58	8.29	3.37	2.46	6.05
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	32.09	4.01	1.31	3.07	9.41
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	28.62	3.53	1.01	3.48	12.13
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	31.67	3.77	1.07	3.54	12.50
Ever enrolled in summer terms	QTSUMENROLL=1	44.00	2.59	1.09	2.37	5.60
Attempted at least nine credits in summer terms	QTSUMATT>=9	48.66	4.61	1.66	2.78	7.70
Earned at least seven credits during summer terms	QTSUMERN >=7	50.32	4.91	1.66	2.96	8.74
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	49.68	2.90	1.11	2.60	6.76
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	41.00	3.04	1.10	2.77	7.70
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	58.95	2.92	1.10	2.66	7.10
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	47.43	3.06	1.10	2.77	7.70
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	43.17	2.94	1.09	2.69	7.26
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	54.59	2.98	1.21	2.46	6.05
Received noncourse credit	QTEVERNCCRD=1	12.28	1.51	0.72	2.09	4.37
Took more than two remedial courses	QTREMTOT>2	48.38	2.91	1.57	1.85	3.43
Took remedial English courses	QTREMENTOT>1	41.70	3.61	2.23	1.62	2.63
Passed remedial English courses	QTREMENGPS>0	81.60	3.43	1.75	1.96	3.84
Took remedial mathematics courses	QTREMMTTOT>1	56.19	3.57	1.73	2.06	4.24
Passed remedial mathematics courses	QTREMMTHPS>0	76.26	3.45	1.48	2.32	5.39
Summary statistics						
Mean		†	†	†	†	2.82	8.83
Minimum		†	†	†	†	1.34	1.79
25th percentile		†	†	†	†	2.17	4.73
Median		†	†	†	†	2.66	7.10
75th percentile		†	†	†	†	3.07	9.41
Maximum		†	†	†	†	5.77	33.32

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-18. Design effects, using WTC000, for selected variables for first-time beginning male Asian students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	52.83	3.67	2.18	1.69	2.85
Received an undergraduate certificate/diploma	QTCERTCRED>0	6.34	2.51	1.07	2.36	5.55
Received an associate's degree	QTASSOCCRED>0	9.21	1.68	1.27	1.33	1.77
Received a bachelor's degree	QTBACCRED>0	47.33	3.14	2.19	1.44	2.06
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	57.50	3.75	2.16	1.73	3.00
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	47.87	5.17	2.97	1.74	3.02
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	35.53	5.49	2.14	2.56	6.55
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	81.03	9.01	5.60	1.61	2.59
Had more than 44 months from known entry to first award	QTPS2AWD1>44	70.83	3.59	2.74	1.31	1.71
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	78.41	3.19	2.76	1.16	1.34
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	86.89	9.79	6.49	1.51	2.27
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	30.62	4.91	2.93	1.68	2.81
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	52.55	3.78	2.22	1.70	2.88
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	48.89	3.68	2.25	1.63	2.67
Ever enrolled in summer terms	QTSUMENROLL=1	60.49	4.01	2.15	1.87	3.49
Attempted at least nine credits in summer terms	QTSUMATT>=9	55.87	4.32	2.92	1.48	2.18
Earned at least seven credits during summer terms	QTSUMERN >=7	56.56	3.97	2.92	1.36	1.85
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	73.13	3.86	1.96	1.97	3.89
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	62.86	3.50	2.14	1.64	2.67
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	82.91	2.71	1.66	1.63	2.66
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	75.28	4.05	1.90	2.13	4.55
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	73.66	4.11	1.94	2.12	4.50
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	80.29	2.82	1.83	1.54	2.38
Received noncourse credit	QTEVERNCCRD=1	30.17	3.27	2.02	1.62	2.62
Took more than two remedial courses	QTREMTOT>2	41.51	6.16	3.59	1.72	2.94
Took remedial English courses	QTREMENTOT>1	57.81	9.22	5.15	1.79	3.20
Passed remedial English courses	QTREMENGPS>0	86.33	6.50	3.58	1.82	3.30
Took remedial mathematics courses	QTREMMTTOT>1	43.98	7.35	4.35	1.69	2.85
Passed remedial mathematics courses	QTREMMTHPS>0	84.96	5.11	3.13	1.63	2.66
Summary statistics						
Mean		†	†	†	†	1.70	2.99
Minimum		†	†	†	†	1.16	1.34
25th percentile		†	†	†	†	1.54	2.38
Median		†	†	†	†	1.68	2.81
75th percentile		†	†	†	†	1.79	3.20
Maximum		†	†	†	†	2.56	6.55

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-19. Design effects, using WTC000, for selected variables for first-time beginning male students of other race/ethnicities, including more than one race: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	50.95	3.47	2.12	1.64	2.69
Received an undergraduate certificate/diploma	QTCERTCRED>0	11.85	3.30	1.37	2.40	5.77
Received an associate's degree	QTASSOCCRED>0	8.25	2.19	1.17	1.87	3.51
Received a bachelor's degree	QTBACCRED>0	22.82	2.72	1.78	1.52	2.33
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	38.06	4.08	2.06	1.98	3.92
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	18.01	5.83	2.77	2.10	4.42
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	44.69	4.39	2.18	2.02	4.06
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	76.84	9.66	5.91	1.63	2.67
Had more than 44 months from known entry to first award	QTPS2AWD1>44	58.82	6.51	3.57	1.82	3.33
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	83.95	7.35	3.62	2.03	4.13
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	54.52	16.89	6.71	2.52	6.33
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	26.60	4.88	2.33	2.09	4.37
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	30.26	3.91	2.02	1.94	3.76
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	33.06	4.14	2.09	1.98	3.91
Ever enrolled in summer terms	QTSUMENROLL=1	43.13	4.28	2.11	2.02	4.10
Attempted at least nine credits in summer terms	QTSUMATT>=9	45.44	5.71	3.23	1.77	3.12
Earned at least seven credits during summer terms	QTSUMERN >=7	44.40	5.20	3.23	1.61	2.60
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	62.28	4.26	2.09	2.04	4.16
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	48.20	3.83	2.15	1.78	3.16
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	62.10	3.83	2.09	1.84	3.37
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	54.77	3.68	2.13	1.73	3.00
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	51.51	3.75	2.13	1.76	3.08
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	54.97	4.17	2.36	1.77	3.12
Received noncourse credit	QTEVERNCCRD=1	11.28	3.33	1.35	2.47	6.08
Took more than two remedial courses	QTREMTOT>2	35.45	5.64	3.15	1.79	3.21
Took remedial English courses	QTREMENTOT>1	27.35	10.81	4.65	2.33	5.41
Passed remedial English courses	QTREMENGPS>0	80.14	7.49	4.16	1.80	3.24
Took remedial mathematics courses	QTREMMTTOT>1	50.09	6.36	3.63	1.75	3.07
Passed remedial mathematics courses	QTREMMTHPS>0	78.65	4.92	2.97	1.65	2.73
Summary statistics						
Mean		†	†	†	†	1.92	3.75
Minimum		†	†	†	†	1.52	2.33
25th percentile		†	†	†	†	1.76	3.08
Median		†	†	†	†	1.84	3.37
75th percentile		†	†	†	†	2.03	4.13
Maximum		†	†	†	†	2.52	6.33

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-20. Design effects, using WTC000, for selected variables for first-time beginning female White students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	58.87	1.15	0.56	2.04	4.17
Received an undergraduate certificate/diploma	QTCERTCRED>0	9.77	0.83	0.34	2.43	5.91
Received an associate's degree	QTASSOCCRED>0	12.51	0.76	0.38	2.01	4.04
Received a bachelor's degree	QTBACCRED>0	39.25	1.57	0.56	2.80	7.82
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	55.23	2.02	0.57	3.54	12.55
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	10.16	0.75	0.48	1.57	2.46
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	39.82	2.37	0.58	4.12	17.00
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	62.98	2.80	1.57	1.78	3.19
Had more than 44 months from known entry to first award	QTPS2AWD1>44	58.36	1.56	0.79	1.97	3.86
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	78.27	1.28	0.82	1.56	2.42
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	58.89	4.16	1.70	2.45	6.01
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	23.80	1.53	0.68	2.26	5.12
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	57.52	1.45	0.58	2.50	6.25
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	56.21	1.40	0.60	2.36	5.55
Ever enrolled in summer terms	QTSUMENROLL=1	50.50	1.17	0.58	2.02	4.08
Attempted at least nine credits in summer terms	QTSUMATT>=9	49.70	1.40	0.81	1.73	3.01
Earned at least seven credits during summer terms	QTSUMERN >=7	53.24	1.50	0.81	1.86	3.46
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	65.83	1.77	0.55	3.20	10.26
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	59.28	1.68	0.57	2.93	8.58
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	70.65	1.61	0.53	3.02	9.14
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	63.29	1.69	0.56	3.04	9.23
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	61.37	1.75	0.56	3.11	9.69
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	62.88	1.30	0.60	2.17	4.71
Received noncourse credit	QTEVERNCCRD=1	16.47	0.81	0.43	1.89	3.58
Took more than two remedial courses	QTREMTOT>2	34.44	1.88	0.89	2.10	4.42
Took remedial English courses	QTREMENTOT>1	25.73	2.59	1.46	1.78	3.16
Passed remedial English courses	QTREMENGPS>0	82.08	2.46	1.28	1.92	3.69
Took remedial mathematics courses	QTREMMTTOT>1	49.62	1.90	1.03	1.85	3.43
Passed remedial mathematics courses	QTREMMTHPS>0	81.53	1.60	0.80	2.01	4.05
Summary statistics						
Mean		†	†	†	2.35	5.89
Minimum		†	†	†	1.56	2.42
25th percentile		†	†	†	1.89	3.58
Median		†	†	†	2.10	4.42
75th percentile		†	†	†	2.80	7.82
Maximum		†	†	†	4.12	17.00

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-21. Design effects, using WTC000, for selected variables for first-time beginning female Black or African American students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	63.13	4.72	1.01	4.69	22.02
Received an undergraduate certificate/diploma	QTCERTCRED>0	11.92	2.45	0.68	3.62	13.09
Received an associate's degree	QTASSOCCRED>0	10.26	3.58	0.63	5.64	31.84
Received a bachelor's degree	QTBACCRED>0	18.60	2.13	0.81	2.62	6.85
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	37.62	3.11	1.01	3.07	9.45
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	6.46	1.29	0.89	1.45	2.11
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	53.95	2.73	1.07	2.54	6.46
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	53.25	15.38	3.37	4.56	20.80
Had more than 44 months from known entry to first award	QTPS2AWD1>44	47.06	5.61	1.82	3.08	9.49
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	83.67	2.79	2.02	1.38	1.92
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	29.83	9.33	2.76	3.37	11.38
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	23.41	2.45	1.09	2.25	5.07
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	26.67	3.50	0.96	3.64	13.27
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	28.56	3.29	1.01	3.27	10.69
Ever enrolled in summer terms	QTSUMENROLL=1	43.04	3.83	1.04	3.68	13.52
Attempted at least nine credits in summer terms	QTSUMATT>=9	56.53	3.88	1.56	2.48	6.17
Earned at least seven credits during summer terms	QTSUMERN >=7	54.05	4.02	1.57	2.56	6.54
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	53.84	3.46	1.06	3.26	10.65
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	40.50	2.83	1.05	2.70	7.31
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	48.16	3.05	1.06	2.87	8.22
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	42.06	3.50	1.04	3.37	11.35
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	39.31	3.16	1.03	3.07	9.42
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	47.76	3.44	1.16	2.98	8.87
Received noncourse credit	QTEVERNCCRD=1	4.95	0.58	0.46	1.27	1.60
Took more than two remedial courses	QTREMTOT>2	52.15	4.84	1.46	3.32	11.03
Took remedial English courses	QTREMENTOT>1	44.79	6.65	1.98	3.35	11.23
Passed remedial English courses	QTREMENGPS>0	67.20	5.72	1.87	3.06	9.34
Took remedial mathematics courses	QTREMMTTOT>1	55.61	6.96	1.60	4.35	18.91
Passed remedial mathematics courses	QTREMMTHPS>0	70.42	3.60	1.47	2.45	5.99
Summary statistics						
Mean		†	†	†	†	3.10	10.50
Minimum		†	†	†	†	1.27	1.60
25th percentile		†	†	†	†	2.56	6.54
Median		†	†	†	†	3.07	9.45
75th percentile		†	†	†	†	3.37	11.38
Maximum		†	†	†	†	5.64	31.84

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-22. Design effects, using WTC000, for selected variables for first-time beginning female Hispanic or Latino students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	59.81	2.41	0.94	2.57	6.58
Received an undergraduate certificate/diploma	QTCERTCRED>0	16.45	2.69	0.71	3.78	14.29
Received an associate's degree	QTASSOCCRED>0	13.77	1.16	0.66	1.75	3.07
Received a bachelor's degree	QTBACCRED>0	20.86	1.48	0.78	1.90	3.60
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	45.84	2.82	0.96	2.95	8.68
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	7.34	1.15	0.75	1.53	2.33
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	46.18	2.38	1.00	2.38	5.65
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	67.60	4.73	2.45	1.94	3.75
Had more than 44 months from known entry to first award	QTPS2AWD1>44	41.55	3.29	1.44	2.29	5.24
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	76.47	3.23	1.80	1.79	3.20
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	39.94	9.04	2.51	3.61	13.02
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	26.56	1.79	1.13	1.58	2.50
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	44.15	2.16	0.98	2.21	4.88
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	45.71	2.11	1.02	2.07	4.27
Ever enrolled in summer terms	QTSUMENROLL=1	45.43	2.38	0.96	2.48	6.13
Attempted at least nine credits in summer terms	QTSUMATT>=9	46.87	2.95	1.40	2.11	4.43
Earned at least seven credits during summer terms	QTSUMERN >=7	47.63	2.72	1.40	1.94	3.75
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	52.27	2.33	0.99	2.35	5.53
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	41.82	2.40	0.98	2.44	5.98
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	64.53	1.98	0.95	2.09	4.35
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	49.11	1.98	0.97	2.05	4.22
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	45.42	2.00	0.96	2.08	4.32
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	53.32	2.04	1.05	1.95	3.80
Received noncourse credit	QTEVERNCCRD=1	13.69	1.34	0.66	2.01	4.06
Took more than two remedial courses	QTREMTOT>2	48.01	3.00	1.36	2.20	4.85
Took remedial English courses	QTREMENTOT>1	30.82	4.01	1.93	2.08	4.33
Passed remedial English courses	QTREMENGPS>0	81.67	3.58	1.61	2.22	4.93
Took remedial mathematics courses	QTREMMTTOT>1	57.53	3.15	1.48	2.13	4.56
Passed remedial mathematics courses	QTREMMTHPS>0	82.37	1.96	1.14	1.72	2.95
Summary statistics						
Mean		†	†	†	†	2.21	5.15
Minimum		†	†	†	†	1.53	2.33
25th percentile		†	†	†	†	1.94	3.75
Median		†	†	†	†	2.09	4.35
75th percentile		†	†	†	†	2.35	5.53
Maximum		†	†	†	†	3.78	14.29

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-23. Design effects, using WTC000, for selected variables for first-time beginning female Asian students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	61.47	4.72	1.94	2.43	5.91
Received an undergraduate certificate/diploma	QTCERTCRED>0	4.53	1.07	0.83	1.29	1.65
Received an associate's degree	QTASSOCCRED>0	8.85	1.75	1.13	1.54	2.38
Received a bachelor's degree	QTBACCRED>0	59.51	3.78	1.96	1.93	3.72
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	69.59	3.47	1.84	1.89	3.58
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	23.54	3.55	2.10	1.70	2.87
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	39.65	3.82	1.99	1.92	3.70
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	80.91	6.88	4.91	1.40	1.96
Had more than 44 months from known entry to first award	QTPS2AWD1>44	73.31	4.59	2.19	2.09	4.38
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.77	4.90	2.26	2.17	4.71
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	62.29	10.41	7.07	1.47	2.17
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	14.21	3.18	2.15	1.48	2.18
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	64.54	3.79	1.94	1.95	3.81
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	62.78	3.90	1.99	1.96	3.83
Ever enrolled in summer terms	QTSUMENROLL=1	61.77	4.61	1.95	2.36	5.59
Attempted at least nine credits in summer terms	QTSUMATT>=9	50.29	4.60	2.66	1.73	2.99
Earned at least seven credits during summer terms	QTSUMERN >=7	53.39	4.60	2.66	1.73	3.00
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	76.54	3.87	1.71	2.26	5.11
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	70.21	4.17	1.85	2.25	5.08
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	81.66	3.50	1.57	2.24	5.00
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	77.63	3.22	1.67	1.92	3.70
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	76.67	3.20	1.70	1.88	3.53
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	76.96	3.56	1.80	1.98	3.92
Received noncourse credit	QTEVERNCCRD=1	29.90	3.44	1.84	1.87	3.51
Took more than two remedial courses	QTREMTOT>2	41.43	5.71	3.53	1.62	2.62
Took remedial English courses	QTREMENTOT>1	38.30	9.51	5.21	1.82	3.33
Passed remedial English courses	QTREMENGPS>0	92.09	3.33	2.89	1.15	1.32
Took remedial mathematics courses	QTREMMTTOT>1	42.64	6.48	4.41	1.47	2.16
Passed remedial mathematics courses	QTREMMTHPS>0	85.95	4.45	3.10	1.44	2.06
Summary statistics						
Mean		†	†	†	†	1.83	3.44
Minimum		†	†	†	†	1.15	1.32
25th percentile		†	†	†	†	1.54	2.38
Median		†	†	†	†	1.88	3.53
75th percentile		†	†	†	†	1.98	3.92
Maximum		†	†	†	†	2.43	5.91

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-24. Design effects, using WTC000, for selected variables for first-time beginning female students of other race/ethnicities, including more than one race: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	57.69	3.87	1.80	2.15	4.64
Received an undergraduate certificate/diploma	QTCERTCRED>0	8.21	2.38	1.00	2.39	5.70
Received an associate's degree	QTASSOCCRED>0	8.33	1.35	1.01	1.34	1.81
Received a bachelor's degree	QTBACCRED>0	30.09	3.16	1.67	1.90	3.59
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	43.49	3.95	1.80	2.19	4.79
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	9.21	2.04	1.65	1.24	1.54
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	44.76	3.60	1.85	1.94	3.78
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	65.17	7.97	5.61	1.42	2.01
Had more than 44 months from known entry to first award	QTPS2AWD1>44	62.31	4.44	2.79	1.59	2.54
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	82.46	4.28	2.77	1.54	2.38
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	48.17	10.03	6.02	1.67	2.78
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	27.58	5.41	2.11	2.57	6.58
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	39.78	3.35	1.83	1.83	3.37
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	47.55	3.67	1.91	1.92	3.68
Ever enrolled in summer terms	QTSUMENROLL=1	48.44	3.68	1.82	2.02	4.07
Attempted at least nine credits in summer terms	QTSUMATT>=9	46.69	4.93	2.58	1.91	3.65
Earned at least seven credits during summer terms	QTSUMERN >=7	47.50	4.50	2.58	1.74	3.03
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	59.77	3.89	1.82	2.14	4.57
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	49.87	3.46	1.86	1.86	3.47
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	63.79	3.31	1.78	1.86	3.46
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	55.45	3.45	1.82	1.90	3.60
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	51.85	3.57	1.83	1.95	3.82
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	59.10	4.03	1.94	2.08	4.32
Received noncourse credit	QTEVERNCCRD=1	12.08	2.07	1.19	1.74	3.04
Took more than two remedial courses	QTREMTOT>2	46.30	6.26	2.65	2.36	5.58
Took remedial English courses	QTREMENTOT>1	37.74	10.80	4.25	2.54	6.46
Passed remedial English courses	QTREMENGPS>0	66.44	13.05	4.14	3.15	9.93
Took remedial mathematics courses	QTREMMTTOT>1	53.97	7.45	2.89	2.58	6.66
Passed remedial mathematics courses	QTREMMTHPS>0	82.84	5.61	2.18	2.57	6.59
Summary statistics						
Mean		†	†	†	†	2.00	4.19
Minimum		†	†	†	†	1.24	1.54
25th percentile		†	†	†	†	1.74	3.04
Median		†	†	†	†	1.92	3.68
75th percentile		†	†	†	†	2.19	4.79
Maximum		†	†	†	†	3.15	9.93

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-25. Design effects, using WTD000, for selected variables for all first-time beginning students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	54.46	0.98	0.40	2.43	5.88
Received an undergraduate certificate/diploma	QTCERTCRED>0	9.99	0.70	0.24	2.91	8.47
Received an associate's degree	QTASSOCCRED>0	13.56	0.64	0.28	2.30	5.28
Received a bachelor's degree	QTBACCRED>0	32.35	1.10	0.38	2.92	8.52
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	50.21	1.04	0.40	2.58	6.68
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	16.42	0.70	0.42	1.68	2.83
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	45.04	2.32	0.41	5.68	32.24
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	66.24	2.38	1.03	2.31	5.36
Had more than 44 months from known entry to first award	QTPS2AWD1>44	56.38	1.39	0.56	2.49	6.18
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	80.15	1.00	0.56	1.77	3.13
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	53.82	3.65	1.26	2.90	8.42
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	28.03	1.01	0.51	2.00	3.98
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	48.94	0.89	0.41	2.15	4.64
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	48.89	0.89	0.42	2.13	4.54
Ever enrolled in summer terms	QTSUMENROLL=1	49.75	0.88	0.41	2.18	4.74
Attempted at least nine credits in summer terms	QTSUMATT>=9	48.47	1.24	0.57	2.19	4.81
Earned at least seven credits during summer terms	QTSUMERN >=7	50.27	1.17	0.57	2.05	4.22
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	61.08	1.35	0.40	3.36	11.28
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	53.09	1.24	0.41	3.03	9.18
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	68.04	1.00	0.38	2.60	6.76
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	60.59	1.07	0.40	2.68	7.20
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	57.83	1.15	0.40	2.87	8.25
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	61.98	1.23	0.42	2.94	8.66
Received noncourse credit	QTEVERNCCRD=1	16.00	0.50	0.30	1.68	2.82
Took more than two remedial courses	QTREMTOT>2	42.15	1.29	0.63	2.04	4.14
Took remedial English courses	QTREMENTOT>1	36.75	2.64	0.99	2.68	7.16
Passed remedial English courses	QTREMENGPS>0	80.22	2.16	0.82	2.65	7.01
Took remedial mathematics courses	QTREMMTTOT>1	51.51	1.47	0.70	2.10	4.41
Passed remedial mathematics courses	QTREMMTHPS>0	81.11	1.33	0.55	2.42	5.87
Summary statistics						
Mean		†	†	†	†	2.54	6.99
Minimum		†	†	†	†	1.68	2.82
25th percentile		†	†	†	†	2.13	4.54
Median		†	†	†	†	2.43	5.88
75th percentile		†	†	†	†	2.87	8.25
Maximum		†	†	†	†	5.68	32.24

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-26. Design effects, using WTD000, for selected variables for first-time beginning students whose base-year institution was public 2-year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	49.96	1.30	0.71	1.85	3.41
Received an undergraduate certificate/diploma	QTCERTCRED>0	11.33	0.83	0.45	1.85	3.42
Received an associate's degree	QTASSOCCRED>0	21.53	1.06	0.58	1.83	3.36
Received a bachelor's degree	QTBACCRED>0	9.14	0.70	0.41	1.71	2.93
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	33.12	1.20	0.66	1.81	3.27
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	12.38	0.99	0.75	1.32	1.75
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	54.12	2.86	0.71	4.05	16.40
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	73.11	2.29	1.32	1.74	3.04
Had more than 44 months from known entry to first award	QTPS2AWD1>44	37.40	2.20	1.11	1.99	3.95
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	78.81	2.64	1.70	1.55	2.40
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	78.38	3.35	1.56	2.16	4.65
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	38.75	1.70	0.90	1.90	3.60
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	36.07	1.45	0.69	2.11	4.46
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	38.01	1.49	0.70	2.11	4.46
Ever enrolled in summer terms	QTSUMENROLL=1	45.13	1.50	0.70	2.13	4.56
Attempted at least nine credits in summer terms	QTSUMATT>=9	46.82	1.97	1.00	1.97	3.89
Earned at least seven credits during summer terms	QTSUMERN >=7	47.56	2.01	1.00	2.01	4.05
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	40.45	1.82	0.70	2.62	6.85
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	30.78	1.40	0.65	2.13	4.54
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	55.83	1.82	0.70	2.59	6.69
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	47.52	1.48	0.71	2.10	4.42
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	42.74	1.46	0.70	2.08	4.34
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	53.03	1.63	0.74	2.20	4.85
Received noncourse credit	QTEVERNCCRD=1	5.16	0.62	0.31	1.98	3.92
Took more than two remedial courses	QTREMTOT>2	51.00	1.53	0.88	1.73	3.01
Took remedial English courses	QTREMENTOT>1	41.07	3.14	1.34	2.34	5.50
Passed remedial English courses	QTREMENGPS>0	81.17	2.49	1.06	2.34	5.46
Took remedial mathematics courses	QTREMMTTOT>1	57.12	1.77	0.94	1.88	3.52
Passed remedial mathematics courses	QTREMMTHPS>0	80.41	1.48	0.76	1.95	3.81
Summary statistics						
Mean		†	†	†	†	2.07	4.50
Minimum		†	†	†	†	1.32	1.75
25th percentile		†	†	†	†	1.85	3.41
Median		†	†	†	†	1.99	3.95
75th percentile		†	†	†	†	2.13	4.56
Maximum		†	†	†	†	4.05	16.40

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-27. Design effects, using WTD000, for selected variables for first-time beginning students whose base-year institution was public 4-year, non-doctorate-granting or public 4-year, doctorate-granting: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	59.93	1.55	0.86	1.80	3.25
Received an undergraduate certificate/diploma	QTCERTCRED>0	3.09	0.43	0.30	1.41	1.98
Received an associate's degree	QTASSOCCRED>0	7.67	0.73	0.47	1.57	2.45
Received a bachelor's degree	QTBACCRED>0	56.70	1.47	0.87	1.69	2.86
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	63.12	1.40	0.85	1.65	2.73
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	21.42	1.35	0.88	1.53	2.34
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	25.51	2.24	0.77	2.90	8.39
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	71.24	4.95	2.77	1.79	3.20
Had more than 44 months from known entry to first award	QTPS2AWD1>44	77.74	1.32	0.90	1.47	2.16
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	84.23	1.24	0.83	1.49	2.21
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	89.86	3.44	3.20	1.08	1.16
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	23.08	2.54	1.27	1.99	3.97
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	54.61	1.56	0.88	1.77	3.14
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	52.06	2.06	0.89	2.31	5.35
Ever enrolled in summer terms	QTSUMENROLL=1	60.39	1.44	0.86	1.67	2.80
Attempted at least nine credits in summer terms	QTSUMATT>=9	48.34	1.90	1.10	1.73	2.99
Earned at least seven credits during summer terms	QTSUMERN >=7	52.39	1.86	1.10	1.69	2.87
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	79.37	1.48	0.72	2.06	4.25
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	70.37	1.75	0.81	2.15	4.64
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	80.96	1.37	0.70	1.96	3.84
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	80.93	2.02	0.69	2.92	8.51
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	77.81	2.21	0.73	3.02	9.10
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	76.00	1.59	0.77	2.08	4.31
Received noncourse credit	QTEVERNCCRD=1	29.49	1.03	0.81	1.28	1.65
Took more than two remedial courses	QTREMTOT>2	29.15	3.08	1.50	2.05	4.19
Took remedial English courses	QTREMENTOT>1	27.51	5.49	2.70	2.03	4.14
Passed remedial English courses	QTREMENGPS>0	80.42	6.67	2.40	2.78	7.73
Took remedial mathematics courses	QTREMMTTOT>1	46.41	4.44	1.81	2.45	6.02
Passed remedial mathematics courses	QTREMMTHPS>0	82.36	3.69	1.38	2.67	7.12
Summary statistics						
Mean		†	†	†	†	1.97	4.12
Minimum		†	†	†	†	1.08	1.16
25th percentile		†	†	†	†	1.65	2.73
Median		†	†	†	†	1.80	3.25
75th percentile		†	†	†	†	2.15	4.64
Maximum		†	†	†	†	3.02	9.10

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-28. Design effects, using WTD000, for selected variables for first-time beginning students whose base-year institution was private nonprofit 4-year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	57.91	1.84	0.88	2.10	4.41
Received an undergraduate certificate/diploma	QTCERTCRED>0	1.83	0.35	0.24	1.47	2.16
Received an associate's degree	QTASSOCCRED>0	5.37	1.07	0.40	2.68	7.19
Received a bachelor's degree	QTBACCRED>0	69.77	1.88	0.82	2.30	5.30
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	73.46	1.72	0.78	2.19	4.81
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	20.20	1.43	0.85	1.69	2.85
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	23.59	2.16	0.77	2.82	7.96
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	69.63	11.25	3.87	2.90	8.44
Had more than 44 months from known entry to first award	QTPS2AWD1>44	71.15	2.17	0.96	2.26	5.11
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	75.99	1.95	0.94	2.08	4.33
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	89.39	5.54	3.26	1.70	2.88
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	15.03	2.97	1.05	2.83	8.04
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	71.25	1.77	0.82	2.16	4.67
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	67.90	1.70	0.85	2.01	4.02
Ever enrolled in summer terms	QTSUMENROLL=1	48.08	1.73	0.90	1.92	3.70
Attempted at least nine credits in summer terms	QTSUMATT>=9	42.50	2.79	1.27	2.20	4.86
Earned at least seven credits during summer terms	QTSUMERN >=7	48.02	3.04	1.28	2.38	5.66
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	88.53	1.66	0.58	2.88	8.32
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	84.49	1.96	0.65	3.00	8.99
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	86.24	1.38	0.62	2.21	4.89
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	86.50	1.39	0.61	2.26	5.13
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	85.54	1.45	0.63	2.29	5.25
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	70.41	1.79	0.85	2.11	4.46
Received noncourse credit	QTEVERNCCRD=1	29.93	1.95	0.82	2.37	5.63
Took more than two remedial courses	QTREMTOT>2	20.06	5.20	1.74	3.00	8.98
Took remedial English courses	QTREMENTOT>1	12.54	4.64	2.97	1.56	2.44
Passed remedial English courses	QTREMENGPS>0	88.76	9.36	2.84	3.30	10.89
Took remedial mathematics courses	QTREMMTTOT>1	30.81	4.89	2.25	2.17	4.72
Passed remedial mathematics courses	QTREMMTHPS>0	87.86	4.20	1.59	2.64	6.96
Summary statistics						
Mean		†	†	†	†	2.33	5.62
Minimum		†	†	†	†	1.47	2.16
25th percentile		†	†	†	†	2.10	4.41
Median		†	†	†	†	2.26	5.11
75th percentile		†	†	†	†	2.68	7.19
Maximum		†	†	†	†	3.30	10.89

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-29. Design effects, using WTD000, for selected variables for first-time beginning students whose base-year institution was private for-profit less than 2-year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	65.88	13.18	2.72	4.85	23.49
Received an undergraduate certificate/diploma	QTCERTCRED>0	51.46	16.71	2.87	5.83	33.97
Received an associate's degree	QTASSOCCRED>0	2.14	1.44	0.83	1.74	3.01
Received a bachelor's degree	QTBACCRED>0	#	#	#	†	†
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	52.25	16.86	2.86	5.89	34.64
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	0.58	0.72	0.63	1.15	1.33
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	79.41	5.18	2.50	2.07	4.29
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	73.92	25.78	14.64	1.76	3.10
Had more than 44 months from known entry to first award	QTPS2AWD1>44	#	#	#	†	†
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	100.00	0.00	0.00	†	†
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	20.83	11.18	3.41	3.28	10.77
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	15.40	6.91	2.48	2.79	7.77
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	56.49	6.80	3.01	2.26	5.09
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	57.51	8.28	3.48	2.38	5.67
Ever enrolled in summer terms	QTSUMENROLL=1	26.38	6.44	2.54	2.53	6.42
Attempted at least nine credits in summer terms	QTSUMATT>=9	65.50	13.85	4.98	2.78	7.73
Earned at least seven credits during summer terms	QTSUMERN >=7	41.99	13.21	5.17	2.55	6.52
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	41.26	9.12	3.07	2.97	8.82
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	33.78	8.81	2.97	2.96	8.78
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	46.71	8.43	3.18	2.65	7.03
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	14.24	4.75	2.04	2.33	5.42
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	13.40	4.29	2.01	2.13	4.55
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	45.06	13.34	3.77	3.54	12.51
Received noncourse credit	QTEVERNCCRD=1	#	#	#	†	†
Took more than two remedial courses	QTREMTOT>2	27.75	12.79	4.25	3.01	9.06
Took remedial English courses	QTREMENTOT>1	48.46	21.56	9.44	2.28	5.21
Passed remedial English courses	QTREMENGPS>0	86.60	12.91	6.44	2.00	4.02
Took remedial mathematics courses	QTREMMTTOT>1	34.72	18.59	4.91	3.79	14.33
Passed remedial mathematics courses	QTREMMTHPS>0	88.74	11.18	3.26	3.43	11.76
Summary statistics						
Mean		†	†	†	†	2.92	9.81
Minimum		†	†	†	†	1.15	1.33
25th percentile		†	†	†	†	2.26	5.09
Median		†	†	†	†	2.65	7.03
75th percentile		†	†	†	†	3.28	10.77
Maximum		†	†	†	†	5.89	34.64

† Not applicable.
# Rounds to zero.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-30. Design effects, using WTD000, for selected variables for first-time beginning students whose base-year institution was private for-profit 2-year or 4-year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	48.38	4.61	0.86	5.36	28.68
Received an undergraduate certificate/diploma	QTCERTCRED>0	18.78	2.59	0.67	3.84	14.78
Received an associate's degree	QTASSOCCRED>0	18.11	4.77	0.66	7.18	51.51
Received a bachelor's degree	QTBACCRED>0	8.23	0.76	0.47	1.60	2.55
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	42.22	3.68	0.85	4.32	18.67
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	4.61	1.02	0.57	1.79	3.20
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	85.13	2.79	0.63	4.40	19.39
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	25.31	11.17	1.88	5.93	35.20
Had more than 44 months from known entry to first award	QTPS2AWD1>44	10.88	1.36	0.86	1.58	2.49
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	59.37	6.05	2.44	2.47	6.12
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	14.21	3.14	1.57	2.00	4.00
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	15.73	1.61	0.76	2.11	4.46
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	45.60	4.07	0.88	4.60	21.15
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	50.84	4.36	0.93	4.71	22.17
Ever enrolled in summer terms	QTSUMENROLL=1	52.69	4.83	0.86	5.58	31.16
Attempted at least nine credits in summer terms	QTSUMATT>=9	60.39	5.55	1.25	4.43	19.66
Earned at least seven credits during summer terms	QTSUMERN >=7	57.82	4.28	1.27	3.38	11.43
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	55.83	4.12	0.89	4.65	21.64
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	51.03	4.85	0.89	5.44	29.60
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	57.71	4.79	0.88	5.44	29.64
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	32.90	5.70	0.81	6.99	48.93
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	35.19	4.96	0.83	5.99	35.92
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	41.14	4.97	0.98	5.09	25.89
Received noncourse credit	QTEVERNCCRD=1	5.38	0.92	0.39	2.36	5.59
Took more than two remedial courses	QTREMTOT>2	28.85	3.33	1.26	2.63	6.94
Took remedial English courses	QTREMENTOT>1	24.26	6.85	1.78	3.86	14.88
Passed remedial English courses	QTREMENGPS>0	71.70	6.42	1.87	3.44	11.84
Took remedial mathematics courses	QTREMMTTOT>1	38.03	7.77	1.55	5.02	25.22
Passed remedial mathematics courses	QTREMMTHPS>0	74.10	5.97	1.40	4.27	18.25
Summary statistics						
Mean		†	†	†	†	4.16	19.69
Minimum		†	†	†	†	1.58	2.49
25th percentile		†	†	†	†	2.63	6.94
Median		†	†	†	†	4.40	19.39
75th percentile		†	†	†	†	5.36	28.68
Maximum		†	†	†	†	7.18	51.51

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-31. Design effects, using WTD000, for selected variables for first-time beginning students whose base-year institution was public less-than-2-year or private nonprofit less-than-4–year: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	39.75	13.78	3.39	4.06	16.49
Received an undergraduate certificate/diploma	QTCERTCRED>0	35.66	10.02	3.33	3.01	9.07
Received an associate's degree	QTASSOCCRED>0	6.40	2.82	1.70	1.66	2.74
Received a bachelor's degree	QTBACCRED>0	4.48	2.33	1.44	1.62	2.63
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	45.50	9.89	3.46	2.86	8.16
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	9.11	6.59	2.95	2.23	4.99
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	82.32	5.84	2.67	2.19	4.77
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	66.83	27.20	10.27	2.65	7.01
Had more than 44 months from known entry to first award	QTPS2AWD1>44	9.76	5.22	3.09	1.69	2.85
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	40.93	20.25	10.25	1.97	3.90
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	28.84	11.64	6.11	1.91	3.63
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	19.25	8.89	3.43	2.59	6.71
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	39.94	13.23	3.82	3.46	11.97
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	37.29	16.31	4.03	4.05	16.38
Ever enrolled in summer terms	QTSUMENROLL=1	17.34	5.64	2.64	2.14	4.58
Attempted at least nine credits in summer terms	QTSUMATT>=9	36.72	11.86	6.44	1.84	3.39
Earned at least seven credits during summer terms	QTSUMERN >=7	34.61	10.78	6.36	1.70	2.88
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	38.16	8.10	3.41	2.38	5.64
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	29.43	8.77	3.20	2.74	7.52
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	56.50	10.45	3.48	3.00	9.01
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	31.08	10.23	3.23	3.17	10.02
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	28.75	9.60	3.16	3.04	9.22
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	41.71	11.57	4.04	2.86	8.20
Received noncourse credit	QTEVERNCCRD=1	2.11	1.62	1.00	1.62	2.61
Took more than two remedial courses	QTREMTOT>2	25.73	16.48	5.89	2.80	7.82
Took remedial English courses	QTREMENTOT>1	38.36	17.91	11.16	1.61	2.58
Passed remedial English courses	QTREMENGPS>0	38.37	17.58	11.16	1.58	2.48
Took remedial mathematics courses	QTREMMTTOT>1	44.29	13.69	7.17	1.91	3.65
Passed remedial mathematics courses	QTREMMTHPS>0	80.16	15.33	5.76	2.66	7.09
Summary statistics						
Mean		†	†	†	2.45	6.48
Minimum		†	†	†	1.58	2.48
25th percentile		†	†	†	1.84	3.39
Median		†	†	†	2.38	5.64
75th percentile		†	†	†	2.86	8.20
Maximum		†	†	†	4.06	16.49

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-32. Design effects, using WTD000, for selected variables for first-time beginning male students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	48.45	1.66	0.64	2.60	6.77
Received an undergraduate certificate/diploma	QTCERTCRED>0	8.03	0.76	0.35	2.19	4.79
Received an associate's degree	QTASSOCCRED>0	13.29	1.20	0.43	2.77	7.67
Received a bachelor's degree	QTBACCRED>0	30.29	1.06	0.59	1.81	3.29
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	46.10	1.27	0.63	2.00	3.99
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	26.85	1.48	0.80	1.85	3.41
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	45.60	2.86	0.64	4.45	19.81
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	67.33	5.95	1.61	3.70	13.68
Had more than 44 months from known entry to first award	QTPS2AWD1>44	58.61	2.23	0.89	2.50	6.23
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	81.92	1.37	0.87	1.57	2.46
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	58.58	5.17	2.06	2.51	6.31
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	29.00	1.91	0.79	2.40	5.75
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	42.60	1.46	0.64	2.28	5.20
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	43.14	1.35	0.65	2.07	4.28
Ever enrolled in summer terms	QTSUMENROLL=1	47.82	1.28	0.64	2.00	4.01
Attempted at least nine credits in summer terms	QTSUMATT>=9	46.22	1.94	0.91	2.13	4.55
Earned at least seven credits during summer terms	QTSUMERN >=7	47.34	2.30	0.91	2.52	6.34
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	59.18	1.46	0.63	2.30	5.31
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	51.35	1.40	0.64	2.18	4.73
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	66.29	1.37	0.61	2.25	5.06
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	60.20	1.65	0.63	2.63	6.92
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	57.03	1.45	0.63	2.28	5.22
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	62.70	1.40	0.66	2.13	4.54
Received noncourse credit	QTEVERNCCRD=1	16.56	0.82	0.48	1.72	2.97
Took more than two remedial courses	QTREMTOT>2	40.76	2.13	1.01	2.12	4.49
Took remedial English courses	QTREMENTOT>1	38.46	3.57	1.57	2.28	5.19
Passed remedial English courses	QTREMENGPS>0	79.48	3.14	1.30	2.41	5.81
Took remedial mathematics courses	QTREMMTTOT>1	49.81	2.37	1.13	2.09	4.39
Passed remedial mathematics courses	QTREMMTHPS>0	78.35	1.98	0.93	2.12	4.51
Summary statistics						
Mean		†	†	†	†	2.34	5.78
Minimum		†	†	†	†	1.57	2.46
25th percentile		†	†	†	†	2.09	4.39
Median		†	†	†	†	2.25	5.06
75th percentile		†	†	†	†	2.50	6.23
Maximum		†	†	†	†	4.45	19.81

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-33. Design effects, using WTD000, for selected variables for first-time beginning female students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	58.84	1.22	0.51	2.37	5.61
Received an undergraduate certificate/diploma	QTCERTCRED>0	11.42	1.05	0.33	3.16	9.96
Received an associate's degree	QTASSOCCRED>0	13.76	0.89	0.36	2.46	6.05
Received a bachelor's degree	QTBACCRED>0	33.86	1.50	0.49	3.04	9.25
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	53.22	1.68	0.52	3.22	10.39
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	9.81	0.66	0.43	1.54	2.38
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	44.63	2.17	0.53	4.10	16.84
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	65.46	3.02	1.34	2.26	5.09
Had more than 44 months from known entry to first award	QTPS2AWD1>44	54.97	1.72	0.72	2.39	5.70
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	78.99	1.28	0.74	1.74	3.02
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	51.39	4.29	1.58	2.71	7.34
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	27.27	1.57	0.66	2.39	5.69
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	53.68	1.32	0.53	2.48	6.15
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	53.28	1.34	0.54	2.47	6.09
Ever enrolled in summer terms	QTSUMENROLL=1	51.16	1.18	0.53	2.24	5.02
Attempted at least nine credits in summer terms	QTSUMATT>=9	50.00	1.69	0.72	2.33	5.41
Earned at least seven credits during summer terms	QTSUMERN >=7	52.27	1.68	0.72	2.32	5.37
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	62.49	1.70	0.52	3.29	10.80
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	54.38	1.57	0.53	2.95	8.72
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	69.34	1.28	0.49	2.60	6.76
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	60.87	1.22	0.51	2.38	5.68
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	58.43	1.49	0.52	2.87	8.25
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	61.45	1.67	0.54	3.07	9.44
Received noncourse credit	QTEVERNCCRD=1	15.58	0.66	0.38	1.73	3.00
Took more than two remedial courses	QTREMTOT>2	43.13	1.65	0.81	2.03	4.14
Took remedial English courses	QTREMENTOT>1	35.40	3.15	1.27	2.48	6.13
Passed remedial English courses	QTREMENGPS>0	80.79	3.07	1.05	2.93	8.60
Took remedial mathematics courses	QTREMMTTOT>1	52.70	1.94	0.90	2.16	4.69
Passed remedial mathematics courses	QTREMMTHPS>0	83.04	1.61	0.67	2.39	5.73
Summary statistics						
Mean		†	†	†	†	2.56	6.80
Minimum		†	†	†	†	1.54	2.38
25th percentile		†	†	†	†	2.32	5.37
Median		†	†	†	†	2.46	6.05
75th percentile		†	†	†	†	2.93	8.60
Maximum		†	†	†	†	4.10	16.84

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-34. Design effects, using WTD000, for selected variables for first-time beginning White students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	52.20	1.06	0.54	1.96	3.84
Received an undergraduate certificate/diploma	QTCERTCRED>0	9.50	0.78	0.32	2.47	6.09
Received an associate's degree	QTASSOCCRED>0	13.76	0.75	0.37	2.02	4.07
Received a bachelor's degree	QTBACCRED>0	39.09	1.64	0.53	3.11	9.67
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	55.85	1.83	0.54	3.41	11.64
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	16.27	0.90	0.53	1.70	2.87
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	41.67	3.13	0.54	5.78	33.42
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	66.39	2.57	1.37	1.87	3.50
Had more than 44 months from known entry to first award	QTPS2AWD1>44	58.49	1.38	0.71	1.95	3.79
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.44	1.18	0.71	1.67	2.77
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	58.47	4.14	1.67	2.48	6.16
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	26.76	1.45	0.69	2.10	4.43
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	57.90	1.23	0.54	2.26	5.12
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	55.95	1.21	0.56	2.17	4.72
Ever enrolled in summer terms	QTSUMENROLL=1	50.82	1.01	0.54	1.85	3.43
Attempted at least nine credits in summer terms	QTSUMATT>=9	46.51	1.25	0.75	1.67	2.79
Earned at least seven credits during summer terms	QTSUMERN >=7	50.92	1.36	0.75	1.81	3.28
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	65.69	1.87	0.52	3.59	12.91
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	59.59	1.96	0.54	3.63	13.20
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	72.82	1.22	0.49	2.51	6.29
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	66.17	1.49	0.52	2.90	8.41
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	64.29	1.68	0.52	3.22	10.37
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	66.36	1.66	0.54	3.05	9.27
Received noncourse credit	QTEVERNCCRD=1	18.52	0.75	0.42	1.77	3.13
Took more than two remedial courses	QTREMTOT>2	35.35	2.15	0.89	2.41	5.80
Took remedial English courses	QTREMENTOT>1	29.62	2.95	1.54	1.92	3.68
Passed remedial English courses	QTREMENGPS>0	85.01	2.76	1.20	2.29	5.26
Took remedial mathematics courses	QTREMMTTOT>1	50.44	2.29	1.02	2.25	5.08
Passed remedial mathematics courses	QTREMMTHPS>0	83.94	1.78	0.75	2.38	5.68
Summary statistics						
Mean		†	†	†	†	2.49	6.92
Minimum		†	†	†	†	1.67	2.77
25th percentile		†	†	†	†	1.92	3.68
Median		†	†	†	†	2.26	5.12
75th percentile		†	†	†	†	2.90	8.41
Maximum		†	†	†	†	5.78	33.42

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-35. Design effects, using WTD000, for selected variables for first-time beginning Black or African American students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	59.41	3.48	1.03	3.39	11.47
Received an undergraduate certificate/diploma	QTCERTCRED>0	10.44	1.56	0.64	2.44	5.95
Received an associate's degree	QTASSOCCRED>0	12.96	2.33	0.70	3.32	11.00
Received a bachelor's degree	QTBACCRED>0	17.70	1.67	0.80	2.09	4.35
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	37.22	2.38	1.01	2.35	5.52
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	9.58	1.77	1.00	1.76	3.11
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	56.64	2.08	1.05	1.98	3.92
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	61.20	8.51	2.92	2.91	8.47
Had more than 44 months from known entry to first award	QTPS2AWD1>44	48.98	3.85	1.72	2.24	5.02
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	85.43	2.17	1.74	1.25	1.56
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	46.86	8.55	3.18	2.69	7.22
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	29.33	2.98	1.20	2.48	6.16
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	22.20	1.79	0.90	2.00	3.98
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	26.14	2.08	0.96	2.16	4.66
Ever enrolled in summer terms	QTSUMENROLL=1	47.11	3.06	1.05	2.91	8.48
Attempted at least nine credits in summer terms	QTSUMATT>=9	58.05	3.76	1.51	2.49	6.18
Earned at least seven credits during summer terms	QTSUMERN >=7	48.71	3.79	1.53	2.48	6.13
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	54.40	3.05	1.06	2.88	8.31
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	38.78	2.25	1.04	2.17	4.70
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	51.71	2.43	1.06	2.29	5.25
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	46.78	2.93	1.05	2.79	7.76
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	41.54	2.49	1.04	2.39	5.74
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	48.71	3.38	1.14	2.97	8.84
Received noncourse credit	QTEVERNCCRD=1	4.79	0.58	0.45	1.29	1.66
Took more than two remedial courses	QTREMTOT>2	51.89	3.43	1.44	2.37	5.63
Took remedial English courses	QTREMENTOT>1	45.38	5.43	2.00	2.71	7.36
Passed remedial English courses	QTREMENGPS>0	73.28	4.32	1.78	2.43	5.88
Took remedial mathematics courses	QTREMMTTOT>1	52.92	5.13	1.59	3.22	10.35
Passed remedial mathematics courses	QTREMMTHPS>0	72.51	3.39	1.43	2.37	5.63
Summary statistics						
Mean		†	†	†	†	2.44	6.22
Minimum		†	†	†	†	1.25	1.56
25th percentile		†	†	†	†	2.17	4.70
Median		†	†	†	†	2.43	5.88
75th percentile		†	†	†	†	2.79	7.76
Maximum		†	†	†	†	3.39	11.47

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-36. Design effects, using WTD000, for selected variables for first-time beginning Hispanic or Latino students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	55.83	2.50	0.91	2.74	7.53
Received an undergraduate certificate/diploma	QTCERTCRED>0	11.44	1.98	0.59	3.38	11.43
Received an associate's degree	QTASSOCCRED>0	15.04	2.40	0.66	3.65	13.33
Received a bachelor's degree	QTBACCRED>0	20.42	1.43	0.74	1.92	3.70
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	41.79	2.79	0.91	3.07	9.44
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	14.79	1.72	0.96	1.79	3.20
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	48.67	3.01	0.94	3.19	10.21
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	65.37	7.32	2.20	3.33	11.06
Had more than 44 months from known entry to first award	QTPS2AWD1>44	47.88	3.92	1.36	2.88	8.31
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	81.20	2.53	1.45	1.74	3.04
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	44.77	7.87	2.74	2.87	8.24
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	29.31	2.25	1.15	1.95	3.80
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	41.47	2.60	0.92	2.82	7.94
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	44.70	2.20	0.96	2.29	5.24
Ever enrolled in summer terms	QTSUMENROLL=1	47.51	2.39	0.92	2.59	6.71
Attempted at least nine credits in summer terms	QTSUMATT>=9	48.62	3.15	1.32	2.40	5.74
Earned at least seven credits during summer terms	QTSUMERN >=7	50.17	2.81	1.32	2.14	4.56
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	51.24	2.02	0.94	2.14	4.58
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	43.47	2.19	0.94	2.34	5.46
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	64.30	2.25	0.90	2.49	6.22
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	51.83	2.59	0.92	2.81	7.88
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	48.37	2.32	0.92	2.51	6.31
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	55.76	2.36	0.98	2.40	5.77
Received noncourse credit	QTEVERNCCRD=1	14.00	1.24	0.64	1.93	3.73
Took more than two remedial courses	QTREMTOT>2	49.10	2.59	1.31	1.98	3.93
Took remedial English courses	QTREMENTOT>1	36.41	4.48	1.90	2.36	5.57
Passed remedial English courses	QTREMENGPS>0	80.68	4.19	1.56	2.69	7.25
Took remedial mathematics courses	QTREMMTTOT>1	53.66	2.71	1.43	1.89	3.56
Passed remedial mathematics courses	QTREMMTHPS>0	80.35	2.24	1.14	1.96	3.85
Summary statistics						
Mean		†	†	†	†	2.49	6.47
Minimum		†	†	†	†	1.74	3.04
25th percentile		†	†	†	†	1.98	3.93
Median		†	†	†	†	2.40	5.77
75th percentile		†	†	†	†	2.82	7.94
Maximum		†	†	†	†	3.65	13.33

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-37. Design effects, using WTD000, for selected variables for first-time beginning Asian students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	60.56	2.98	1.81	1.65	2.71
Received an undergraduate certificate/diploma	QTCERTCRED>0	7.30	2.08	0.97	2.16	4.66
Received an associate's degree	QTASSOCCRED>0	10.28	1.73	1.13	1.54	2.36
Received a bachelor's degree	QTBACCRED>0	50.25	2.98	1.86	1.61	2.58
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	63.00	3.39	1.79	1.89	3.58
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	34.84	3.59	2.17	1.65	2.73
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	34.84	3.86	1.79	2.15	4.62
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	78.26	8.14	4.53	1.80	3.23
Had more than 44 months from known entry to first award	QTPS2AWD1>44	70.91	3.50	2.08	1.68	2.83
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.40	3.46	2.08	1.66	2.76
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	80.65	7.99	5.82	1.37	1.88
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	31.41	5.65	2.78	2.03	4.12
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	59.34	3.64	1.85	1.97	3.87
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	54.19	3.20	1.90	1.68	2.84
Ever enrolled in summer terms	QTSUMENROLL=1	59.45	3.50	1.83	1.91	3.64
Attempted at least nine credits in summer terms	QTSUMATT>=9	49.45	5.34	2.45	2.18	4.77
Earned at least seven credits during summer terms	QTSUMERN >=7	50.71	4.44	2.45	1.82	3.30
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	70.54	3.58	1.72	2.08	4.34
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	63.24	3.42	1.82	1.89	3.56
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	78.47	3.35	1.55	2.16	4.68
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	73.86	3.46	1.64	2.10	4.42
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	72.41	3.55	1.67	2.12	4.50
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	74.08	3.87	1.71	2.27	5.13
Received noncourse credit	QTEVERNCCRD=1	29.90	2.69	1.71	1.57	2.47
Took more than two remedial courses	QTREMTOT>2	42.07	5.50	3.23	1.70	2.90
Took remedial English courses	QTREMENTOT>1	49.82	9.32	4.64	2.01	4.03
Passed remedial English courses	QTREMENGPS>0	86.09	6.26	3.21	1.95	3.79
Took remedial mathematics courses	QTREMMTTOT>1	43.63	6.63	3.87	1.71	2.93
Passed remedial mathematics courses	QTREMMTHPS>0	85.36	5.57	2.76	2.02	4.07
Summary statistics						
Mean		†	†	†	†	1.87	3.56
Minimum		†	†	†	†	1.37	1.88
25th percentile		†	†	†	†	1.68	2.83
Median		†	†	†	†	1.89	3.58
75th percentile		†	†	†	†	2.08	4.34
Maximum		†	†	†	†	2.27	5.13

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-38. Design effects, using WTD000, for selected variables for first-time beginning students of other race/ethnicities, including more than one race: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	54.42	2.94	1.74	1.69	2.84
Received an undergraduate certificate/diploma	QTCERTCRED>0	11.19	2.39	1.10	2.17	4.70
Received an associate's degree	QTASSOCCRED>0	10.43	1.52	1.07	1.42	2.01
Received a bachelor's degree	QTBACCRED>0	26.68	2.38	1.55	1.54	2.37
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	43.35	3.06	1.73	1.76	3.11
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	14.50	2.93	1.86	1.58	2.49
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	46.52	3.36	1.77	1.89	3.58
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	74.20	7.51	4.42	1.70	2.89
Had more than 44 months from known entry to first award	QTPS2AWD1>44	54.35	4.04	2.64	1.53	2.34
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	80.18	4.23	2.71	1.56	2.44
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	47.81	10.23	5.81	1.76	3.11
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	28.82	3.76	2.10	1.79	3.22
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	39.75	3.22	1.75	1.84	3.38
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	41.59	3.40	1.80	1.89	3.57
Ever enrolled in summer terms	QTSUMENROLL=1	44.12	3.11	1.75	1.78	3.18
Attempted at least nine credits in summer terms	QTSUMATT>=9	43.16	4.25	2.47	1.72	2.96
Earned at least seven credits during summer terms	QTSUMERN >=7	46.29	3.52	2.48	1.42	2.01
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	56.66	3.53	1.76	2.00	4.00
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	46.95	3.08	1.78	1.73	3.00
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	63.95	3.15	1.71	1.84	3.40
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	57.76	3.46	1.74	1.99	3.95
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	53.47	3.52	1.76	2.01	4.02
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	59.56	3.46	1.84	1.88	3.52
Received noncourse credit	QTEVERNCCRD=1	12.94	1.89	1.18	1.60	2.55
Took more than two remedial courses	QTREMTOT>2	37.65	5.33	2.59	2.06	4.22
Took remedial English courses	QTREMENTOT>1	31.90	6.39	4.22	1.51	2.29
Passed remedial English courses	QTREMENGPS>0	70.65	7.58	4.12	1.84	3.38
Took remedial mathematics courses	QTREMMTTOT>1	52.65	5.64	2.92	1.93	3.74
Passed remedial mathematics courses	QTREMMTHPS>0	83.55	3.88	2.17	1.79	3.21
Summary statistics						
Mean		†	†	†	†	1.77	3.15
Minimum		†	†	†	†	1.42	2.01
25th percentile		†	†	†	†	1.60	2.55
Median		†	†	†	†	1.78	3.18
75th percentile		†	†	†	†	1.89	3.57
Maximum		†	†	†	†	2.17	4.70

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-39. Design effects, using WTD000, for selected variables for first-time beginning male White students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	46.77	1.74	0.84	2.06	4.26
Received an undergraduate certificate/diploma	QTCERTCRED>0	7.72	0.95	0.45	2.11	4.46
Received an associate's degree	QTASSOCCRED>0	13.36	1.10	0.57	1.92	3.70
Received a bachelor's degree	QTBACCRED>0	36.83	1.82	0.81	2.24	5.01
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	52.07	1.81	0.84	2.14	4.59
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	26.83	1.75	1.01	1.73	2.99
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	42.07	3.64	0.85	4.31	18.54
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	67.45	4.11	2.17	1.89	3.59
Had more than 44 months from known entry to first award	QTPS2AWD1>44	61.13	2.05	1.12	1.84	3.37
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	81.25	1.71	1.09	1.57	2.48
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	59.52	6.94	2.64	2.63	6.89
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	26.34	2.63	1.05	2.50	6.26
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	51.50	1.67	0.86	1.95	3.80
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	50.08	1.75	0.87	2.01	4.05
Ever enrolled in summer terms	QTSUMENROLL=1	48.20	1.58	0.85	1.86	3.47
Attempted at least nine credits in summer terms	QTSUMATT>=9	42.45	2.18	1.20	1.82	3.31
Earned at least seven credits during summer terms	QTSUMERN >=7	47.31	2.32	1.21	1.92	3.70
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	63.28	2.45	0.83	2.97	8.83
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	56.91	2.26	0.85	2.66	7.08
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	68.72	1.65	0.79	2.08	4.31
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	63.79	2.02	0.82	2.48	6.15
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	62.23	2.05	0.82	2.49	6.22
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	66.52	2.01	0.85	2.37	5.61
Received noncourse credit	QTEVERNCCRD=1	19.28	1.10	0.67	1.64	2.68
Took more than two remedial courses	QTREMTOT>2	34.97	3.52	1.44	2.44	5.98
Took remedial English courses	QTREMENTOT>1	32.26	5.43	2.44	2.22	4.93
Passed remedial English courses	QTREMENGPS>0	80.27	5.06	2.08	2.43	5.92
Took remedial mathematics courses	QTREMMTTOT>1	48.09	3.19	1.65	1.94	3.76
Passed remedial mathematics courses	QTREMMTHPS>0	79.88	2.47	1.32	1.87	3.48
Summary statistics						
Mean		†	†	†	†	2.21	5.15
Minimum		†	†	†	†	1.57	2.48
25th percentile		†	†	†	†	1.89	3.59
Median		†	†	†	†	2.08	4.31
75th percentile		†	†	†	†	2.44	5.98
Maximum		†	†	†	†	4.31	18.54

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-40. Design effects, using WTD000, for selected variables for first-time beginning male, Black or African American students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	50.77	4.47	1.72	2.61	6.80
Received an undergraduate certificate/diploma	QTCERTCRED>0	7.76	1.75	0.92	1.91	3.63
Received an associate's degree	QTASSOCCRED>0	11.50	2.10	1.10	1.92	3.68
Received a bachelor's degree	QTBACCRED>0	17.34	2.53	1.30	1.95	3.79
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	33.51	3.65	1.62	2.25	5.06
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	14.58	4.05	2.01	2.02	4.07
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	56.88	3.68	1.71	2.15	4.63
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	74.05	7.70	4.22	1.82	3.33
Had more than 44 months from known entry to first award	QTPS2AWD1>44	54.23	5.30	2.86	1.85	3.43
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	87.81	2.97	2.62	1.13	1.28
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	61.47	11.86	5.86	2.02	4.09
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	30.83	4.92	1.97	2.49	6.22
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	17.05	2.50	1.32	1.90	3.60
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	21.53	2.88	1.46	1.96	3.86
Ever enrolled in summer terms	QTSUMENROLL=1	47.04	3.98	1.71	2.32	5.38
Attempted at least nine credits in summer terms	QTSUMATT>=9	53.66	5.91	2.53	2.34	5.47
Earned at least seven credits during summer terms	QTSUMERN >=7	39.13	5.98	2.47	2.42	5.84
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	53.08	3.73	1.72	2.16	4.69
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	36.42	3.54	1.67	2.12	4.50
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	52.23	3.62	1.73	2.10	4.39
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	49.80	3.72	1.72	2.16	4.68
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	40.00	3.53	1.69	2.09	4.38
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	50.03	4.33	1.84	2.35	5.51
Received noncourse credit	QTEVERNCCRD=1	4.92	0.99	0.74	1.33	1.78
Took more than two remedial courses	QTREMTOT>2	50.35	4.45	2.31	1.92	3.70
Took remedial English courses	QTREMENTOT>1	41.96	7.03	3.19	2.20	4.85
Passed remedial English courses	QTREMENGPS>0	77.33	6.71	2.71	2.48	6.15
Took remedial mathematics courses	QTREMMTTOT>1	50.79	5.81	2.57	2.26	5.09
Passed remedial mathematics courses	QTREMMTHPS>0	70.98	5.38	2.34	2.30	5.30
Summary statistics						
Mean		†	†	†	†	2.09	4.45
Minimum		†	†	†	†	1.13	1.28
25th percentile		†	†	†	†	1.92	3.70
Median		†	†	†	†	2.12	4.50
75th percentile		†	†	†	†	2.30	5.30
Maximum		†	†	†	†	2.61	6.80

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-41. Design effects, using WTD000, for selected variables for first-time beginning male Hispanic or Latino students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	51.29	3.88	1.45	2.67	7.11
Received an undergraduate certificate/diploma	QTCERTCRED>0	7.79	1.35	0.78	1.73	3.00
Received an associate's degree	QTASSOCCRED>0	15.84	5.36	1.06	5.03	25.34
Received a bachelor's degree	QTBACCRED>0	18.30	1.79	1.13	1.59	2.52
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	36.41	4.70	1.40	3.35	11.23
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	26.39	4.58	1.93	2.38	5.67
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	50.73	3.96	1.47	2.69	7.25
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	59.24	13.41	3.50	3.83	14.66
Had more than 44 months from known entry to first award	QTPS2AWD1>44	49.25	6.71	2.20	3.05	9.30
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	84.94	2.90	2.14	1.35	1.83
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	48.00	9.39	4.66	2.01	4.06
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	32.10	4.04	1.85	2.19	4.80
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	31.83	4.91	1.38	3.56	12.69
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	38.16	4.00	1.46	2.73	7.45
Ever enrolled in summer terms	QTSUMENROLL=1	45.49	3.42	1.45	2.36	5.56
Attempted at least nine credits in summer terms	QTSUMATT>=9	51.38	6.50	2.09	3.11	9.66
Earned at least seven credits during summer terms	QTSUMERN >=7	52.55	6.76	2.09	3.24	10.47
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	49.25	3.94	1.47	2.68	7.19
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	44.85	3.42	1.46	2.34	5.46
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	65.13	3.41	1.40	2.43	5.93
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	54.30	3.81	1.45	2.62	6.86
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	51.20	3.59	1.46	2.46	6.04
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	57.12	5.12	1.55	3.30	10.87
Received noncourse credit	QTEVERNCCRD=1	14.49	2.30	1.03	2.23	4.99
Took more than two remedial courses	QTREMTOT>2	46.18	4.14	2.07	1.99	3.98
Took remedial English courses	QTREMENTOT>1	42.55	6.26	3.07	2.04	4.17
Passed remedial English courses	QTREMENGPS>0	81.48	4.78	2.41	1.98	3.93
Took remedial mathematics courses	QTREMMTTOT>1	53.62	5.28	2.30	2.29	5.26
Passed remedial mathematics courses	QTREMMTHPS>0	78.51	4.30	1.89	2.27	5.15
Summary statistics						
Mean		†	†	†	†	2.60	7.33
Minimum		†	†	†	†	1.35	1.83
25th percentile		†	†	†	†	2.19	4.80
Median		†	†	†	†	2.43	5.93
75th percentile		†	†	†	†	3.05	9.30
Maximum		†	†	†	†	5.03	25.34

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-42. Design effects, using WTD000, for selected variables for first-time beginning male Asian students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	53.33	4.80	2.82	1.70	2.88
Received an undergraduate certificate/diploma	QTCERTCRED>0	9.69	3.69	1.67	2.20	4.86
Received an associate's degree	QTASSOCCRED>0	10.00	2.36	1.70	1.39	1.93
Received a bachelor's degree	QTBACCRED>0	42.49	4.67	2.80	1.67	2.79
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	55.40	6.00	2.81	2.13	4.54
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	46.59	6.16	3.62	1.70	2.90
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	36.71	6.26	2.77	2.26	5.10
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	75.93	14.47	7.03	2.06	4.24
Had more than 44 months from known entry to first award	QTPS2AWD1>44	68.83	5.91	3.39	1.75	3.05
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.67	4.52	3.28	1.38	1.91
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	85.86	11.31	8.45	1.34	1.79
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	39.96	8.14	4.35	1.87	3.51
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	55.64	5.73	2.85	2.01	4.03
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	49.21	4.58	2.90	1.58	2.50
Ever enrolled in summer terms	QTSUMENROLL=1	58.85	4.71	2.81	1.68	2.81
Attempted at least nine credits in summer terms	QTSUMATT>=9	46.86	6.92	3.76	1.84	3.39
Earned at least seven credits during summer terms	QTSUMERN >=7	46.33	6.17	3.76	1.64	2.69
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	69.31	5.60	2.65	2.12	4.47
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	58.79	5.24	2.83	1.85	3.42
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	80.59	5.32	2.27	2.34	5.49
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	72.86	5.56	2.54	2.19	4.78
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	70.69	5.74	2.60	2.20	4.86
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	73.59	5.87	2.58	2.27	5.16
Received noncourse credit	QTEVERNCCRD=1	26.25	3.61	2.52	1.43	2.06
Took more than two remedial courses	QTREMTOT>2	46.88	8.22	4.74	1.73	3.01
Took remedial English courses	QTREMENTOT>1	59.91	11.88	6.67	1.78	3.17
Passed remedial English courses	QTREMENGPS>0	86.35	7.64	4.67	1.63	2.67
Took remedial mathematics courses	QTREMMTTOT>1	54.04	10.24	5.57	1.84	3.38
Passed remedial mathematics courses	QTREMMTHPS>0	84.25	7.78	4.07	1.91	3.65
Summary statistics						
Mean		†	†	†	†	1.84	3.48
Minimum		†	†	†	†	1.34	1.79
25th percentile		†	†	†	†	1.67	2.79
Median		†	†	†	†	1.84	3.38
75th percentile		†	†	†	†	2.12	4.47
Maximum		†	†	†	†	2.34	5.49

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-43. Design effects, using WTD000, for selected variables for first-time beginning male students of other race/ethnicities, including more than one race: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	45.39	4.53	2.80	1.62	2.62
Received an undergraduate certificate/diploma	QTCERTCRED>0	11.13	3.52	1.77	1.99	3.95
Received an associate's degree	QTASSOCCRED>0	11.59	3.20	1.80	1.78	3.15
Received a bachelor's degree	QTBACCRED>0	20.01	3.21	2.25	1.42	2.03
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	36.10	4.23	2.71	1.56	2.45
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	23.35	7.02	3.73	1.89	3.55
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	46.67	5.15	2.85	1.81	3.26
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	80.32	10.78	6.21	1.74	3.01
Had more than 44 months from known entry to first award	QTPS2AWD1>44	44.70	6.62	4.39	1.51	2.27
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	78.19	7.70	4.87	1.58	2.50
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	49.68	20.39	9.45	2.16	4.66
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	27.71	5.26	3.28	1.60	2.57
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	32.16	4.99	2.69	1.86	3.44
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	31.00	5.00	2.70	1.85	3.42
Ever enrolled in summer terms	QTSUMENROLL=1	41.59	4.86	2.79	1.74	3.02
Attempted at least nine credits in summer terms	QTSUMATT>=9	51.37	7.42	4.09	1.81	3.28
Earned at least seven credits during summer terms	QTSUMERN >=7	52.78	6.04	4.09	1.48	2.18
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	54.42	5.54	2.84	1.95	3.80
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	43.63	4.70	2.83	1.66	2.76
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	63.95	5.35	2.74	1.95	3.82
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	54.48	5.33	2.82	1.89	3.56
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	49.10	5.20	2.83	1.83	3.36
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	58.84	5.74	3.00	1.91	3.66
Received noncourse credit	QTEVERNCCRD=1	12.91	3.06	1.90	1.61	2.59
Took more than two remedial courses	QTREMTOT>2	29.97	6.31	4.05	1.56	2.43
Took remedial English courses	QTREMENTOT>1	11.07	7.29	4.68	1.56	2.43
Passed remedial English courses	QTREMENGPS>0	64.61	17.55	7.13	2.46	6.06
Took remedial mathematics courses	QTREMMTTOT>1	43.44	8.52	4.84	1.76	3.10
Passed remedial mathematics courses	QTREMMTHPS>0	83.06	5.79	3.66	1.58	2.50
Summary statistics						
Mean		†	†	†	†	1.76	3.15
Minimum		†	†	†	†	1.42	2.03
25th percentile		†	†	†	†	1.58	2.50
Median		†	†	†	†	1.76	3.10
75th percentile		†	†	†	†	1.89	3.55
Maximum		†	†	†	†	2.46	6.06

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-44. Design effects, using WTD000, for selected variables for first-time beginning female White students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	56.29	1.62	0.70	2.32	5.40
Received an undergraduate certificate/diploma	QTCERTCRED>0	10.84	1.22	0.44	2.78	7.75
Received an associate's degree	QTASSOCCRED>0	14.06	1.06	0.49	2.16	4.66
Received a bachelor's degree	QTBACCRED>0	40.79	2.02	0.69	2.91	8.46
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	58.70	2.48	0.69	3.56	12.70
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	9.20	0.67	0.53	1.27	1.60
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	41.37	3.05	0.70	4.33	18.72
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	65.63	3.32	1.78	1.87	3.50
Had more than 44 months from known entry to first award	QTPS2AWD1>44	56.73	1.93	0.92	2.10	4.42
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	78.21	1.46	0.93	1.57	2.47
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	57.91	4.72	2.15	2.20	4.84
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	27.10	2.20	0.92	2.39	5.73
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	62.81	1.62	0.69	2.33	5.43
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	60.53	1.70	0.71	2.38	5.66
Ever enrolled in summer terms	QTSUMENROLL=1	52.79	1.47	0.71	2.08	4.31
Attempted at least nine credits in summer terms	QTSUMATT>=9	49.29	1.71	0.96	1.78	3.18
Earned at least seven credits during summer terms	QTSUMERN >=7	53.39	1.75	0.96	1.83	3.34
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	67.50	1.95	0.67	2.91	8.48
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	61.61	2.30	0.70	3.31	10.94
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	75.91	1.66	0.61	2.71	7.33
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	67.96	1.78	0.66	2.69	7.22
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	65.84	2.04	0.67	3.02	9.14
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	66.23	1.93	0.71	2.73	7.46
Received noncourse credit	QTEVERNCCRD=1	17.94	0.95	0.54	1.75	3.05
Took more than two remedial courses	QTREMTOT>2	35.62	2.37	1.14	2.08	4.31
Took remedial English courses	QTREMENTOT>1	27.56	3.68	1.97	1.87	3.49
Passed remedial English courses	QTREMENGPS>0	88.72	2.43	1.40	1.74	3.03
Took remedial mathematics courses	QTREMMTTOT>1	52.09	3.05	1.29	2.36	5.57
Passed remedial mathematics courses	QTREMMTHPS>0	86.81	2.41	0.88	2.75	7.58
Summary statistics						
Mean		†	†	†	†	2.41	6.20
Minimum		†	†	†	†	1.27	1.60
25th percentile		†	†	†	†	1.87	3.50
Median		†	†	†	†	2.33	5.43
75th percentile		†	†	†	†	2.75	7.58
Maximum		†	†	†	†	4.33	18.72

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-45. Design effects, using WTD000, for selected variables for first-time beginning female Black or African American students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	65.06	4.06	1.26	3.23	10.45
Received an undergraduate certificate/diploma	QTCERTCRED>0	12.20	2.30	0.86	2.66	7.09
Received an associate's degree	QTASSOCCRED>0	13.92	3.58	0.91	3.92	15.34
Received a bachelor's degree	QTBACCRED>0	17.93	2.25	1.01	2.22	4.95
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	39.67	3.24	1.29	2.51	6.29
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	6.81	1.54	1.08	1.43	2.04
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	56.48	2.48	1.33	1.86	3.48
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	54.40	11.68	3.82	3.06	9.35
Had more than 44 months from known entry to first award	QTPS2AWD1>44	46.11	5.49	2.14	2.56	6.57
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	83.96	2.81	2.29	1.23	1.50
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	40.54	9.17	3.69	2.48	6.17
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	28.27	3.50	1.51	2.32	5.40
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	25.78	3.12	1.20	2.61	6.80
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	29.34	3.51	1.27	2.77	7.66
Ever enrolled in summer terms	QTSUMENROLL=1	47.16	3.61	1.33	2.71	7.35
Attempted at least nine credits in summer terms	QTSUMATT>=9	61.01	4.37	1.88	2.33	5.41
Earned at least seven credits during summer terms	QTSUMERN >=7	55.15	5.18	1.91	2.71	7.32
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	55.28	3.95	1.34	2.95	8.72
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	40.37	3.15	1.32	2.38	5.68
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	51.36	3.37	1.35	2.51	6.28
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	44.73	4.25	1.33	3.20	10.26
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	42.59	3.40	1.32	2.57	6.62
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	47.79	3.97	1.44	2.75	7.59
Received noncourse credit	QTEVERNCCRD=1	4.70	0.77	0.57	1.36	1.85
Took more than two remedial courses	QTREMTOT>2	53.07	4.52	1.85	2.45	5.99
Took remedial English courses	QTREMENTOT>1	48.40	6.35	2.57	2.47	6.12
Passed remedial English courses	QTREMENGPS>0	69.70	6.57	2.36	2.78	7.75
Took remedial mathematics courses	QTREMMTTOT>1	54.50	6.98	2.03	3.44	11.86
Passed remedial mathematics courses	QTREMMTHPS>0	73.64	4.34	1.79	2.42	5.86
Summary statistics						
Mean		†	†	†	†	2.55	6.82
Minimum		†	†	†	†	1.23	1.50
25th percentile		†	†	†	†	2.38	5.68
Median		†	†	†	†	2.56	6.57
75th percentile		†	†	†	†	2.77	7.66
Maximum		†	†	†	†	3.92	15.34

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-46. Design effects, using WTD000, for selected variables for first-time beginning female Hispanic or Latino students: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	58.85	3.12	1.17	2.68	7.17
Received an undergraduate certificate/diploma	QTCERTCRED>0	13.86	3.24	0.82	3.95	15.63
Received an associate's degree	QTASSOCCRED>0	14.51	1.42	0.84	1.70	2.89
Received a bachelor's degree	QTBACCRED>0	21.82	1.90	0.98	1.94	3.75
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	45.36	3.69	1.18	3.12	9.72
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	8.61	1.79	0.96	1.86	3.47
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	47.22	3.26	1.23	2.66	7.05
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	69.87	5.08	2.79	1.82	3.31
Had more than 44 months from known entry to first award	QTPS2AWD1>44	47.16	3.95	1.73	2.28	5.21
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.11	3.40	1.93	1.77	3.12
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	43.57	9.73	3.39	2.87	8.24
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	27.34	2.72	1.47	1.84	3.40
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	47.97	2.58	1.21	2.14	4.56
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	49.41	2.98	1.26	2.36	5.57
Ever enrolled in summer terms	QTSUMENROLL=1	48.86	2.77	1.19	2.32	5.38
Attempted at least nine credits in summer terms	QTSUMATT>=9	46.91	4.30	1.69	2.54	6.48
Earned at least seven credits during summer terms	QTSUMERN >=7	48.69	4.05	1.69	2.39	5.71
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	52.62	2.80	1.23	2.28	5.20
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	42.51	2.91	1.22	2.39	5.70
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	63.72	2.88	1.18	2.44	5.93
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	50.19	2.77	1.19	2.32	5.37
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	46.48	2.67	1.19	2.24	5.02
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	54.83	2.74	1.27	2.16	4.65
Received noncourse credit	QTEVERNCCRD=1	13.67	1.76	0.82	2.14	4.59
Took more than two remedial courses	QTREMTOT>2	50.81	3.47	1.68	2.06	4.26
Took remedial English courses	QTREMENTOT>1	32.71	5.50	2.40	2.29	5.26
Passed remedial English courses	QTREMENGPS>0	80.20	5.80	2.04	2.85	8.12
Took remedial mathematics courses	QTREMMTTOT>1	53.69	3.54	1.84	1.93	3.73
Passed remedial mathematics courses	QTREMMTHPS>0	81.46	2.93	1.43	2.05	4.21
Summary statistics						
Mean		†	†	†	†	2.32	5.61
Minimum		†	†	†	†	1.70	2.89
25th percentile		†	†	†	†	2.05	4.21
Median		†	†	†	†	2.28	5.21
75th percentile		†	†	†	†	2.44	5.93
Maximum		†	†	†	†	3.95	15.63

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-47. Design effects, using WTD000, for selected variables for first-time beginning female Asian students 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	67.60	3.80	2.30	1.65	2.73
Received an undergraduate certificate/diploma	QTCERTCRED>0	4.98	1.40	1.07	1.31	1.71
Received an associate's degree	QTASSOCCRED>0	10.56	2.38	1.51	1.57	2.48
Received a bachelor's degree	QTBACCRED>0	57.82	3.82	2.43	1.57	2.48
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	70.42	3.53	2.24	1.58	2.48
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	25.82	3.92	2.57	1.53	2.33
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	33.03	3.92	2.34	1.67	2.80
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	80.41	8.36	5.85	1.43	2.04
Had more than 44 months from known entry to first award	QTPS2AWD1>44	72.49	3.94	2.62	1.50	2.25
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	79.21	4.35	2.69	1.61	2.61
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	72.27	10.33	8.31	1.24	1.55
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	17.86	4.61	3.12	1.48	2.19
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	62.98	4.18	2.41	1.73	2.99
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	59.09	4.41	2.49	1.77	3.13
Ever enrolled in summer terms	QTSUMENROLL=1	60.03	5.22	2.42	2.16	4.65
Attempted at least nine credits in summer terms	QTSUMATT>=9	51.93	6.54	3.21	2.04	4.15
Earned at least seven credits during summer terms	QTSUMERN >=7	54.89	5.33	3.20	1.67	2.77
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	71.75	3.68	2.24	1.64	2.70
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	67.55	3.70	2.33	1.59	2.51
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	76.40	3.78	2.12	1.79	3.19
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	74.84	3.58	2.15	1.67	2.78
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	74.08	3.57	2.17	1.64	2.70
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	74.57	4.11	2.27	1.81	3.28
Received noncourse credit	QTEVERNCCRD=1	33.45	3.68	2.33	1.58	2.49
Took more than two remedial courses	QTREMTOT>2	36.48	7.28	4.34	1.68	2.81
Took remedial English courses	QTREMENTOT>1	33.89	12.89	6.01	2.15	4.60
Passed remedial English courses	QTREMENGPS>0	85.68	9.61	4.45	2.16	4.66
Took remedial mathematics courses	QTREMMTTOT>1	32.41	8.27	5.11	1.62	2.62
Passed remedial mathematics courses	QTREMMTHPS>0	86.56	7.69	3.72	2.07	4.27
Summary statistics						
Mean		†	†	†	†	1.69	2.90
Minimum		†	†	†	†	1.24	1.55
25th percentile		†	†	†	†	1.57	2.48
Median		†	†	†	†	1.64	2.70
75th percentile		†	†	†	†	1.77	3.13
Maximum		†	†	†	†	2.16	4.66

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table G-48. Design effects, using WTD000, for selected variables for first-time beginning female students of other race/ethnicities, including more than one race: 2012–17

Variable description	Definition	Percent estimate	Design standard error	Simple random sample standard error	DEFT[1]	DEFF[2]
Attended more than one institution	QTSCHTOTAL>1	61.39	3.90	2.17	1.79	3.22
Received an undergraduate certificate/diploma	QTCERTCRED>0	11.23	3.52	1.41	2.49	6.22
Received an associate's degree	QTASSOCCRED>0	9.53	1.67	1.31	1.27	1.62
Received a bachelor's degree	QTBACCRED>0	31.83	3.61	2.08	1.74	3.01
Received an undergraduate degree or certificate/diploma	QT1STCRED>0	48.95	4.33	2.23	1.94	3.76
Received a degree in STEM field (using the SMART Grant definition of STEM)	QTSTEM1CRED=1	9.46	2.49	1.93	1.29	1.68
Had more than 6 months between high school exit and postsecondary entry	QTHS2PS1>3	46.40	3.82	2.27	1.68	2.83
Had more than 28 months from known entry to first associate's degree	QTPS2ASOC1 >28	68.44	8.69	6.16	1.41	1.99
Had more than 44 months from known entry to first award	QTPS2AWD1>44	59.86	5.23	3.25	1.61	2.59
Had more than 44 months from known entry to first bachelor's degree	QTPS2BACC1>44	81.15	4.40	3.25	1.35	1.84
Had more than 15 months from known entry to first undergraduate certificate	QTPS2CERT1>15	46.37	14.65	7.35	1.99	3.97
Had at least one stopout longer than 4 months	QTSTOPGT4M>0	29.79	5.08	2.73	1.86	3.46
Attained a GPA of at least 3.00 at all known institutions attended	QTGPAALL >=3	45.52	3.53	2.27	1.55	2.41
Attained a GPA of at least 3.00 during first-year enrollment	QTYR1GPA>=3	49.96	3.62	2.34	1.55	2.40
Ever enrolled in summer terms	QTSUMENROLL=1	46.09	4.21	2.24	1.88	3.54
Attempted at least nine credits in summer terms	QTSUMATT>=9	37.38	4.25	3.04	1.40	1.96
Earned at least seven credits during summer terms	QTSUMERN >=7	41.73	4.41	3.09	1.42	2.03
Attempted at least 24 credits in first-year enrollment	QTYR1ATT>=24	58.45	4.01	2.24	1.79	3.20
Earned at least 21 credits in first-year enrollment	QTYR1ERN>=21	49.61	3.94	2.28	1.73	2.99
Earned more than 24 credits at first known institution attended	QTERN1STSC>24	63.95	3.93	2.18	1.80	3.23
Attempted at least 66 credits during postsecondary career	QTPOSTATT>=66	60.32	4.28	2.20	1.94	3.78
Earned at least 60 credits earned during postsecondary career	QTPOSTERN>=60	56.88	4.36	2.23	1.96	3.84
Earned at least 10 STEM credits (using NCES definition of STEM)	QTSTEM3ERN>=10	60.13	4.12	2.33	1.77	3.12
Received noncourse credit	QTEVERNCCRD=1	12.97	2.35	1.51	1.56	2.42
Took more than two remedial courses	QTREMTOT>2	43.99	7.30	3.34	2.19	4.79
Took remedial English courses	QTREMENTOT>1	49.24	10.43	5.70	1.83	3.35
Passed remedial English courses	QTREMENGPS>0	75.69	8.27	4.89	1.69	2.86
Took remedial mathematics courses	QTREMMTTOT>1	59.90	6.15	3.57	1.72	2.96
Passed remedial mathematics courses	QTREMMTHPS>0	83.93	5.01	2.68	1.87	3.51
Summary statistics						
Mean		†	†	†	†	1.73	3.05
Minimum		†	†	†	†	1.27	1.62
25th percentile		†	†	†	†	1.55	2.41
Median		†	†	†	†	1.74	3.01
75th percentile		†	†	†	†	1.87	3.51
Maximum		†	†	†	†	2.49	6.22

† Not applicable.
[1] DEFT is the square root of DEFF and can also be defined as the ratio of the design-based standard error over the standard error that would have been obtained from a simple random sample of the same size (if that were practical).
[2] DEFF is the survey design effect for a statistic and is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical).
NOTE: GPA = grade point average; NCES = National Center for Education Statistics; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Responses that include logical skips, not applicable, missing, unknown, or multiple possible answers were excluded from analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

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	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Control and level of institution						(Effect size = 0.10)				(Effect size = 0.03)	
Public less-than-2-year	130	60	0.19	0.13	0.48	-0.05	-28.92	0.19	0.16	-0.03	-13.85
Public 2-year	9,040	1,600	37.09	36.59	39.79	-0.50	-1.34	37.09	37.00	-0.09	-0.24
Public 4-year, non-doctorate-granting	1,710	170	11.36	11.98	7.97	0.62*	5.48	11.36	11.56	0.19	1.71
Public 4-year, doctorate-granting	3,230	350	23.08	24.83	13.53	1.75*	7.59	23.08	23.20	0.13	0.55
Private nonprofit less-than-4-year	210	200	0.36	0.20	1.26	-0.17*	-45.91	0.36	0.40	0.04	11.56
Private nonprofit 4-year, non-doctorate-granting	2,110	190	8.49	9.06	5.37	0.57*	6.75	8.49	8.85	0.36	4.21
Private nonprofit 4-year, doctorate-granting	2,430	350	9.02	9.43	6.77	0.41	4.58	9.02	8.94	-0.08	-0.85
Private for-profit less-than-2-year	660	780	2.99	2.10	7.88	-0.90*	-29.92	2.99	2.76	-0.23	-7.68
Private for-profit 2-year	1,700	1,320	2.95	1.93	8.49	-1.02*	-34.50	2.95	2.73	-0.22	-7.43
Private for-profit 4-year	4,700	4,080	4.47	3.74	8.47	-0.73*	-16.37	4.47	4.39	-0.08	-1.77
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = 0.05)				(Effect size = 0.01)	
New England	1,210	440	5.85	5.68	6.81	-0.18	-3.00	5.85	5.83	-0.02	-0.42
Mid East	4,250	1,180	15.25	15.26	15.18	0.01	0.09	15.25	15.21	-0.04	-0.25
Great Lakes	4,430	960	15.00	15.86	10.32	0.86*	5.72	15.00	15.37	0.37	2.49
Plains	1,670	750	7.48	7.35	8.19	-0.13	-1.74	7.48	7.63	0.15	2.04
Southeast	5,710	2,350	23.82	23.30	26.65	-0.52	-2.18	23.82	23.64	-0.18	-0.75
Southwest	3,670	940	12.88	13.96	6.99	1.08*	8.38	12.88	12.92	0.04	0.31
Rocky Mountains	1,130	450	3.95	4.07	3.31	0.12	2.98	3.95	3.90	-0.06	-1.40
Far West	3,840	2,030	15.77	14.52	22.55	-1.24*	-7.89	15.77	15.50	-0.27	-1.69
Institution total enrollment						(Effect size = 0.06)				(Effect size = #)	
0–2,628	5,290	4,460	13.85	11.87	24.62	-1.98*	-14.27	13.85	13.76	-0.09	-0.62
2,629–10,233	7,840	2,360	24.17	24.45	22.64	0.28	1.16	24.17	24.12	-0.06	-0.24
10,234–26,884	6,670	1,550	32.91	33.11	31.80	0.20	0.62	32.91	32.96	0.05	0.15
26,885 or more	6,100	730	29.07	30.56	20.93	1.49*	5.14	29.07	29.16	0.09	0.32
Age as of December 31, 2011						(Effect size = 0.05)				(Effect size = 0.01)	
15–23	21,470	6,360	87.69	89.25	79.21	1.56*	1.77	87.69	87.88	0.18	0.21
24–29	2,010	1,240	5.43	4.92	8.22	-0.51*	-9.39	5.43	5.55	0.12	2.21
30 or more	2,430	1,500	6.87	5.83	12.58	-1.05*	-15.21	6.87	6.57	-0.30	-4.42
Pell Grant status						(Effect size = 0.03)				(Effect size = #)	
Received	11,530	2,750	51.93	53.46	43.62	1.52*	2.94	51.93	52.03	0.10	0.19
Did not receive	14,380	6,350	48.07	46.54	56.38	-1.52*	-3.17	48.07	47.97	-0.10	-0.20

See notes at end of table.

Table H-1. Student-level nonresponse bias analysis for selected variables for students in all institutions using weight WTC000: 2012–17 —Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Pell Grant amount received						(Effect size = 0.05)				(Effect size = 0.01)	
$0 or unknown	9,420	2,420	43.80	44.69	38.97	0.89*	2.02	43.80	43.85	0.05	0.12
$1–$3,500	3,830	1,930	13.52	12.50	19.05	-1.02*	-7.51	13.52	13.17	-0.34	-2.54
$3,501–$6,352	3,570	2,210	11.89	11.04	16.54	-0.85*	-7.16	11.89	11.75	-0.15	-1.24
$6,353–$13,088	4,290	1,500	13.86	13.93	13.47	0.07	0.51	13.86	14.15	0.29	2.11
$13,089 or more	4,790	1,030	16.93	17.84	11.97	0.91*	5.38	16.93	17.08	0.15	0.86
Stafford Loan status						(Effect size = #)				(Effect size = #)	
Received	11,760	2,750	52.36	52.44	51.93	0.08	0.15	52.36	52.31	-0.04	-0.08
Did not receive	14,150	6,350	47.64	47.56	48.07	-0.08	-0.16	47.64	47.69	0.04	0.09
Total Stafford Loan amount received						(Effect size = 0.04)				(Effect size = 0.01)	
$0 or unknown	9,320	2,680	42.31	41.33	47.68	-0.98*	-2.33	42.31	42.16	-0.16	-0.37
$1–$6,365	3,910	1,820	13.05	12.79	14.48	-0.26	-2.00	13.05	13.07	0.02	0.13
$6,366–$12,755	3,690	2,040	11.82	11.35	14.39	-0.47*	-3.99	11.82	11.75	-0.07	-0.58
$12,756–$26,000	4,560	1,340	16.10	16.83	12.09	0.74*	4.57	16.10	16.24	0.14	0.90
$26,001 or more	4,430	1,230	16.72	17.70	11.36	0.98*	5.87	16.72	16.78	0.06	0.38
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = 0.02)				(Effect size = #)	
$0 or unknown	22,550	8,060	88.39	87.85	91.31	-0.54*	-0.61	88.39	88.35	-0.03	-0.04
$1–$6,900	770	320	2.39	2.41	2.25	0.03	1.05	2.39	2.41	0.02	0.70
$6,901–$14,995	810	290	2.87	3.00	2.21	0.12*	4.24	2.87	2.88	0.01	0.31
$14,996–$34,345	860	240	2.98	3.16	1.97	0.18*	6.21	2.98	2.99	0.01	0.23
$34,346 or more	910	190	3.37	3.58	2.25	0.20*	6.08	3.37	3.37	#	0.07
Federal aid status						(Effect size = 0.02)				(Effect size = #)	
Did not receive	9,300	2,680	42.22	41.22	47.67	-1.00*	-2.37	42.22	42.04	-0.17	-0.41
Received	16,600	6,420	57.78	58.78	52.33	1.00*	1.73	57.78	57.96	0.17	0.30
Institutional aid status						(Effect size = 0.05)				(Effect size = 0.05)	
Did not receive	17,460	6,320	64.31	63.67	67.80	-0.64	-0.99	64.31	64.89	0.58	0.90
Received	5,970	880	28.75	30.49	19.27	1.74*	6.04	28.75	29.46	0.71	2.47
Unknown	2,490	1,900	6.94	5.84	12.93	-1.10*	-15.82	6.94	5.65	-1.29*	-18.56
State aid status						(Effect size = 0.05)				(Effect size = 0.05)	
Did not receive	18,640	6,250	71.14	71.21	70.75	0.07	0.10	71.14	71.83	0.69	0.97
Received	4,790	960	21.92	22.95	16.32	1.03*	4.68	21.92	22.52	0.60*	2.73
Unknown	2,490	1,900	6.94	5.84	12.93	-1.10*	-15.82	6.94	5.65	-1.29*	-18.56

See notes at end of table.

Table H-1. Student-level nonresponse bias analysis for selected variables for students in all institutions using weight WTC000: 2012–17 —Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = #)				(Effect size = 0.01)	
Yes	21,810	8,170	79.73	79.67	80.05	-0.06	-0.07	79.73	79.97	0.24	0.31
No	4,090	930	20.27	20.33	19.95	0.06	0.29	20.27	20.03	-0.24	-1.21
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	5,190	870	23.44	24.51	17.60	1.07*	4.57	23.44	24.24	0.80*	3.43
Social/behavioral sciences	870	130	4.53	4.64	3.95	0.11	2.33	4.53	4.48	-0.05	-1.12
Life sciences	1,380	150	7.05	7.44	4.93	0.39*	5.52	7.05	6.96	-0.09	-1.22
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	1,100	950	2.23	2.09	2.99	-0.14*	-6.27	2.23	2.19	-0.04	-1.75
Engineering	1,080	860	4.59	4.80	3.44	0.21*	4.57	4.59	4.64	0.06	1.28
Education	690	90	3.17	3.36	2.15	0.19*	5.91	3.17	3.39	0.22	7.02
Business/management	2,700	930	9.83	9.80	9.97	-0.03	-0.27	9.83	9.65	-0.17	-1.76
Health	3,930	2,210	10.12	9.68	12.57	-0.45*	-4.43	10.12	10.22	0.10	0.99
Vocational/technical	1,370	650	3.59	2.88	7.46	-0.71*	-19.80	3.59	3.17	-0.41	-11.48
Other technical/professional	3,380	1,290	10.39	9.66	14.41	-0.74*	-7.08	10.39	10.19	-0.20	-1.96
Unknown	3,990	940	19.71	19.79	19.30	0.08	0.38	19.71	19.55	-0.16	-0.83
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	7,470	1,610	34.69	35.60	29.72	0.91	2.63	34.69	35.05	0.37	1.05
65%–80%	7,270	3,060	29.13	29.00	29.85	-0.13	-0.45	29.13	29.43	0.30	1.03
81%–92%	6,570	3,100	20.49	19.47	26.09	-1.03*	-5.01	20.49	19.82	-0.67	-3.28
93% or more	4,550	1,300	15.42	15.75	13.66	0.32	2.10	15.42	15.50	0.07	0.48
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = 0.06)				(Effect size = 0.01)	
23.64% or less	8,830	2,340	31.49	31.27	32.74	-0.23	-0.72	31.49	31.44	-0.06	-0.18
23.65%–41.64%	6,050	2,440	21.61	21.48	22.27	-0.12	-0.57	21.61	21.82	0.22	1.00
41.65%–60.34%	4,140	1,340	19.41	20.21	15.09	0.79*	4.08	19.41	19.62	0.20	1.05
60.35% or more	5,460	1,680	23.27	24.00	19.25	0.74	3.16	23.27	23.10	-0.16	-0.71
Unknown	1,420	1,290	4.22	3.04	10.65	-1.18*	-27.93	4.22	4.02	-0.20	-4.70

See notes at end of table.

Table H-1. Student-level nonresponse bias analysis for selected variables for students in all institutions using weight WTC000: 2012–17 —Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.03)				(Effect size = 0.01)	
No	22,150	6,390	88.47	89.56	82.54	1.09*	1.23	88.47	88.68	0.21	0.23
Yes	3,760	2,710	11.53	10.44	17.46	-1.09*	-9.43	11.53	11.32	-0.21	-1.80
Total number of institutions attended						(Effect size = 0.11)				(Effect size = #)	
1	9,110	4,410	39.15	34.30	65.58	-4.85*	-12.38	39.15	39.14	-0.01	-0.03
2	8,340	3,430	32.84	34.15	25.70	1.31*	3.99	32.84	32.83	-0.02	-0.05
3	4,740	910	16.79	18.75	6.14	1.95*	11.63	16.79	16.81	0.02	0.12
4	2,140	250	7.06	7.98	2.00	0.93*	13.13	7.06	7.07	0.01	0.19
5 or more	1,590	110	4.16	4.82	0.57	0.66*	15.81	4.16	4.15	#	-0.12

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-2. Student-level nonresponse bias analysis for selected variables for students in public less-than-2-year institutions using weight WTC000: 2012–17

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mid East	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	130	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	130	60	99.69	100.00	99.22	0.31	0.31	99.69	100.00	0.31	0.31
2,629–10,233	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = ‡)				(Effect size = ‡)	
15–23	90	30	63.76	72.33	50.88	8.57	13.43	63.76	71.97	8.21	12.87
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status						(Effect size = ‡)				(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total Pell Grant amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$1–$3,500	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$13,089 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-2. Student-level nonresponse bias analysis for selected variables for students in public less-than-2-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Stafford Loan status						(Effect size = ‡)				(Effect size = ‡)	
Received	80	30	58.33	66.48	46.08	8.15	13.97	58.33	68.35	10.02	17.18
Did not receive	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	70	30	53.53	59.10	45.16	5.57	10.40	53.53	62.79	9.26	17.30
$1–$6,365	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,366–$12,755	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$12,756–$26,000	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$26,001 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	120	60	98.62	98.77	98.39	0.15	0.15	98.62	98.88	0.26	0.27
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	70	30	53.53	59.10	45.16	5.57	10.40	53.53	62.79	9.26	17.30
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	120	60	95.95	95.97	95.92	0.02	0.02	95.95	96.28	0.32	0.34
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	120	50	91.44	92.90	89.24	1.46	1.60	91.44	93.82	2.38	2.60
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-2. Student-level nonresponse bias analysis for selected variables for students in public less-than-2-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = ‡)				(Effect size = ‡)	
Yes	100	40	73.77	74.92	72.05	1.14	1.55	73.77	72.18	-1.59	-2.16
No	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
81%–92%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
93% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	130	60	100.00	100.00	100.00	#	#	100.00	100.00	#	#

See notes at end of table.

Table H-2. Student-level nonresponse bias analysis for selected variables for students in public less-than-2-year institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = ‡)				(Effect size = ‡)	
No	110	50	86.12	89.34	81.27	3.22	3.74	86.12	90.01	3.89	4.52
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	60	50	51.11	35.19	75.04	-15.91§	-31.14	51.11	45.28	-5.83	-11.41
2	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
3	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
§ $p < 0.05$ for difference between weighted respondent mean and weighted nonrespondent mean but not for estimated bias.
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-3. Student-level nonresponse bias analysis for selected variables for students in public 2-year institutions using weight WTC000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = 0.09)				(Effect size = 0.04)	
New England	280	90	4.10	3.87	5.23	-0.23	-5.51	4.10	4.01	-0.09	-2.10
Mid East	1,150	130	13.15	13.69	10.46	0.54	4.08	13.15	13.56	0.41	3.09
Great Lakes	1,860	180	14.74	15.84	9.26	1.09	7.42	14.74	15.25	0.51	3.45
Plains	510	130	7.91	7.33	10.79	-0.58	-7.29	7.91	7.75	-0.15	-1.91
Southeast	2,110	420	19.94	19.50	22.11	-0.43	-2.18	19.94	20.27	0.33	1.67
Southwest	130	110	16.40	18.41	6.34	2.01*	12.24	16.40	16.91	0.51	3.13
Rocky Mountains	370	40	2.76	3.02	1.43	0.27	9.62	2.76	2.86	0.10	3.62
Far West	1,520	500	21.01	18.34	34.38	-2.67*	-12.69	21.01	19.38	-1.62	-7.73
Institution total enrollment						(Effect size = 0.04)				(Effect size = 0.03)	
0–2,628	200	90	2.66	2.27	4.63	-0.39	-14.79	2.66	2.25	-0.41	-15.56
2,629–10,233	2,630	350	25.69	26.76	20.31	1.07	4.18	25.69	26.56	0.87	3.40
10,234–26,884	3,760	900	43.55	42.06	51.01	-1.49	-3.42	43.55	43.18	-0.37	-0.85
26,885 or more	2,450	260	28.10	28.91	24.04	0.81	2.88	28.10	28.01	-0.09	-0.32
Age as of December 31, 2011						(Effect size = 0.03)				(Effect size = 0.02)	
15–23	7,310	1,250	82.24	82.94	78.68	0.71*	0.86	82.24	82.28	0.04	0.05
24–29	770	120	8.21	8.32	7.71	0.10	1.23	8.21	8.54	0.32	3.93
30 or more	970	230	9.55	8.74	13.61	-0.81*	-8.48	9.55	9.19	-0.36	-3.80
Pell Grant status						(Effect size = 0.01)				(Effect size = 0.01)	
Received	3,960	680	45.17	45.58	43.13	0.41	0.90	45.17	44.86	-0.31	-0.69
Did not receive	5,090	920	54.83	54.42	56.87	-0.41	-0.74	54.83	55.14	0.31	0.57
Total Pell Grant amount received						(Effect size = 0.04)				(Effect size = 0.02)	
$0 or unknown	3,100	620	36.02	35.40	39.15	-0.62	-1.73	36.02	35.24	-0.78	-2.16
$1–$3,500	1,680	330	18.41	17.55	22.76	-0.87*	-4.71	18.41	18.13	-0.28	-1.51
$3,501–$6,352	1,270	250	14.22	14.02	15.20	-0.20	-1.38	14.22	14.28	0.07	0.46
$6,353–$13,088	1,520	230	16.12	16.62	13.62	0.50§	3.10	16.12	16.84	0.72*	4.46
$13,089 or more	1,470	160	15.23	16.42	9.27	1.19*	7.80	15.23	15.50	0.27	1.79
Stafford Loan status						(Effect size = 0.02)				(Effect size = 0.01)	
Received	6,790	1,280	75.70	74.97	79.38	-0.73	-0.97	75.70	75.29	-0.41	-0.54
Did not receive	2,250	320	24.30	25.03	20.62	0.73	3.02	24.30	24.71	0.41	1.68

See notes at end of table.

Table H-3. Student-level nonresponse bias analysis for selected variables for students in public 2-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.05)				(Effect size = 0.02)	
$0 or unknown	5,160	1,150	58.08	55.66	70.18	-2.41*	-4.16	58.08	57.26	-0.82	-1.41
$1–$6,365	1,340	190	14.34	14.71	12.48	0.37	2.58	14.34	14.58	0.24	1.65
$6,366–$12,755	980	130	10.62	11.09	8.27	0.47*	4.42	10.62	10.88	0.25	2.37
$12,756–$26,000	1,050	80	11.25	12.29	6.00	1.05*	9.31	11.25	11.61	0.36	3.20
$26,001 or more	510	50	5.71	6.24	3.07	0.53*	9.23	5.71	5.68	-0.03	-0.54
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	8,700	1,590	96.53	95.94	99.50	-0.59*	-0.61	96.53	96.15	-0.38*	-0.39
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.05)				(Effect size = 0.02)	
Did not receive	5,160	1,150	58.00	55.57	70.18	-2.43*	-4.19	58.00	57.18	-0.82	-1.41
Received	3,890	450	42.00	44.43	29.82	2.43*	5.79	42.00	42.82	0.82	1.95
Institutional aid status						(Effect size = 0.05)				(Effect size = 0.06)	
Did not receive	7,080	1,110	78.08	79.89	69.00	1.81*	2.32	78.08	79.64	1.56	1.99
Received	1,090	260	13.62	13.20	15.71	-0.42	-3.07	13.62	13.56	-0.05	-0.39
Unknown	870	230	8.31	6.91	15.29	-1.39	-16.78	8.31	6.80	-1.50	-18.10
State aid status						(Effect size = 0.05)				(Effect size = 0.05)	
Did not receive	6,540	1,100	74.23	75.28	68.97	1.05	1.41	74.23	75.24	1.01	1.36
Received	1,630	270	17.46	17.81	15.74	0.34	1.97	17.46	17.96	0.49	2.81
Unknown	870	230	8.31	6.91	15.29	-1.39	-16.78	8.31	6.80	-1.50	-18.10

See notes at end of table.

Table H-3. Student-level nonresponse bias analysis for selected variables for students in public 2-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = #)				(Effect size = 0.01)	
Yes	6,900	1,190	75.19	75.37	74.31	0.17	0.23	75.19	75.47	0.28	0.37
No	2,150	410	24.81	24.63	25.69	-0.17	-0.70	24.81	24.53	-0.28	-1.11
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	2,590	360	35.01	36.61	27.00	1.60*	4.57	35.01	36.22	1.21	3.45
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	230	30	2.91	2.81	3.40	-0.10	-3.37	2.91	2.68	-0.23	-7.88
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	250	40	2.14	2.26	1.52	0.12	5.78	2.14	2.28	0.15	6.83
Engineering	370	40	3.28	3.39	2.72	0.11	3.38	3.28	3.42	0.14	4.23
Education	200	30	2.10	2.11	2.08	#	0.23	2.10	2.05	-0.05	-2.30
Business/management	770	140	8.53	8.58	8.28	0.05	0.59	8.53	8.51	-0.02	-0.24
Health	1,000	190	9.08	8.90	10.00	-0.18	-2.01	9.08	8.99	-0.09	-0.96
Vocational/technical	810	190	5.30	4.84	7.60	-0.46*	-8.67	5.30	5.00	-0.30	-5.68
Other technical/professional	990	200	10.03	9.73	11.54	-0.30	-2.99	10.03	10.01	-0.02	-0.18
Unknown	1,680	360	19.42	18.79	22.63	-0.64	-3.29	19.42	18.97	-0.46	-2.35
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	3,920	580	46.27	46.75	43.87	0.48	1.03	46.27	46.46	0.19	0.41
65%–80%	3,260	590	33.85	33.71	34.59	-0.15	-0.43	33.85	33.85	#	-0.01
81%–92%	1,110	350	13.83	13.08	17.60	-0.75	-5.43	13.83	12.87	-0.96	-6.94
93% or more	750	70	5.70	6.23	3.03	0.53	9.35	5.70	6.62	0.92*	16.11
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	6,490	1,180	71.31	71.91	68.26	0.61	0.85	71.31	71.60	0.30	0.42
23.65%–41.64%	2,210	310	24.68	24.40	26.08	-0.28	-1.13	24.68	24.81	0.13	0.51
41.65%–60.34%	260	70	3.00	2.90	3.51	-0.10	-3.35	3.00	2.82	-0.19	-6.17
60.35% or more	80	40	0.67	0.55	1.25	-0.12	-17.44	0.67	0.57	-0.10	-14.70
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-3. Student-level nonresponse bias analysis for selected variables for students in public 2-year institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.01)				(Effect size = #)	
No	8,200	1,440	90.16	90.41	88.89	0.25	0.28	90.16	90.27	0.11	0.13
Yes	840	160	9.84	9.59	11.11	-0.25	-2.57	9.84	9.73	-0.11	-1.15
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	3,920	1,150	45.02	40.08	69.83	-4.95*	-10.99	45.02	44.20	-0.83	-1.84
2	2,990	330	32.37	34.54	21.51	2.17*	6.69	32.37	33.09	0.72	2.22
3	1,260	90	13.67	15.24	5.79	1.57*	11.49	13.67	13.66	-0.01	-0.05
4	500	30	5.53	6.16	2.34	0.64*	11.51	5.53	5.63	0.10	1.80
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
§ $p < 0.05$ for difference between weighted respondent mean and weighted nonrespondent mean but not for estimated bias.
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-4. Student-level nonresponse bias analysis for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mid East	300	30	16.83	16.53	19.26	-0.30	-1.76	16.83	16.68	-0.15	-0.91
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	620	90	34.64	32.85	49.30	-1.79	-5.16	34.64	32.83	-1.80	-5.20
Southwest	130	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
2,629–10,233	680	90	38.50	36.94	51.28	-1.56	-4.05	38.50	37.14	-1.36	-3.53
10,234–26,884	580	60	36.81	36.37	40.48	-0.45	-1.21	36.81	36.54	-0.27	-0.73
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = ‡)				(Effect size = ‡)	
15–23	1,580	160	92.85	93.21	89.89	0.36	0.39	92.85	93.14	0.29	0.31
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status						(Effect size = 0.01)				(Effect size = 0.01)	
Received	890	80	52.79	53.43	47.49	0.65	1.22	52.79	53.43	0.65	1.23
Did not receive	810	90	47.21	46.57	52.51	-0.65	-1.37	47.21	46.57	-0.65	-1.37
Total Pell Grant amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	750	70	44.19	44.64	40.53	0.45	1.01	44.19	44.87	0.68	1.53
$1–$3,500	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$13,089 or more	340	50	20.45	20.19	22.58	-0.26	-1.27	20.45	20.01	-0.43	-2.12
Stafford Loan status						(Effect size = 0.01)				(Effect size = 0.01)	
Received	880	90	52.15	51.52	57.32	-0.63	-1.21	52.15	51.71	-0.44	-0.84
Did not receive	830	80	47.85	48.48	42.68	0.63	1.32	47.85	48.29	0.44	0.91

See notes at end of table.

Table H-4. Student-level nonresponse bias analysis for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	690	80	41.61	40.45	51.14	-1.16	-2.79	41.61	41.05	-0.57	-1.36
$1–$6,365	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,366–$12,755	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$12,756–$26,000	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$26,001 or more	290	30	16.66	16.47	18.25	-0.19	-1.17	16.66	16.32	-0.34	-2.03
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	1,550	150	90.88	91.00	89.87	0.12	0.14	90.88	91.10	0.22	0.24
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.02)				(Effect size = 0.01)	
Did not receive	690	80	41.61	40.45	51.14	-1.16	-2.79	41.61	41.05	-0.57	-1.36
Received	1,020	90	58.39	59.55	48.86	1.16	1.99	58.39	58.95	0.57	0.97
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	1,290	140	77.57	76.60	85.47	-0.96	-1.24	77.57	76.95	-0.62	-0.80
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	1,200	110	69.78	69.82	69.45	0.04	0.06	69.78	70.11	0.33	0.48
Received	470	50	28.06	28.24	26.63	0.17	0.62	28.06	28.00	-0.07	-0.23
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-4. Student-level nonresponse bias analysis for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.01)				(Effect size = 0.01)	
Yes	1,400	140	78.95	79.23	76.60	0.29	0.36	78.95	79.19	0.24	0.30
No	310	30	21.05	20.77	23.40	-0.29	-1.36	21.05	20.81	-0.24	-1.14
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	510	50	32.22	31.69	36.64	-0.54	-1.67	32.22	31.64	-0.58	-1.81
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	520	40	30.94	31.42	27.04	0.48	1.54	30.94	31.42	0.47	1.53
65%–80%	690	40	38.96	40.92	22.83	1.97§	5.05	38.96	40.98	2.03	5.20
81%–92%	350	70	23.66	21.77	39.17	-1.89	-7.99	23.66	21.85	-1.81	-7.66
93% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	840	80	43.99	43.64	46.89	-0.35	-0.80	43.99	43.35	-0.64	-1.45
41.65%–60.34%	450	40	28.52	29.23	22.62	0.72	2.52	28.52	29.39	0.87	3.07
60.35% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-4. Student-level nonresponse bias analysis for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = ‡)				(Effect size = ‡)	
No	1,540	150	89.41	89.43	89.21	0.02	0.03	89.41	89.28	-0.13	-0.14
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	640	120	40.60	36.88	71.18	-3.73*	-9.18	40.60	41.03	0.43	1.06
2	570	40	33.03	34.48	21.12	1.45*	4.40	33.03	33.01	-0.02	-0.06
3	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
§ $p < 0.05$ for difference between weighted respondent mean and weighted nonrespondent mean but not for estimated bias.
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-5. Student-level nonresponse bias analysis for selected variables for students in public 4-year, doctorate-granting institutions using weight WTC000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mid East	350	90	9.62	9.46	11.22	-0.16	-1.67	9.62	9.52	-0.09	-0.97
Great Lakes	530	70	17.37	17.14	19.61	-0.22	-1.29	17.37	16.75	-0.62	-3.57
Plains	240	40	7.98	7.53	12.54	-0.46	-5.71	7.98	7.43	-0.55	-6.93
Southeast	930	120	29.73	28.73	39.69	-1.00	-3.35	29.73	29.75	0.02	0.08
Southwest	130	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
2,629–10,233	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
10,234–26,884	1,300	160	38.00	38.27	35.34	0.27	0.70	38.00	38.38	0.38	0.99
26,885 or more	1,700	180	55.43	55.09	58.84	-0.34	-0.61	55.43	54.72	-0.71	-1.28
Age as of December 31, 2011						(Effect size = ‡)				(Effect size = ‡)	
15–23	3,200	350	98.76	98.88	97.52	0.12	0.13	98.76	98.88	0.12	0.13
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status						(Effect size = #)				(Effect size = 0.01)	
Received	2,070	240	65.76	65.67	66.66	-0.09	-0.14	65.76	65.49	-0.27	-0.41
Did not receive	1,160	120	34.24	34.33	33.34	0.09	0.26	34.24	34.51	0.27	0.79
Total Pell Grant amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	1,780	210	56.77	56.69	57.59	-0.08	-0.15	56.77	56.54	-0.23	-0.40
$1–$3,500	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,353–$13,088	330	30	10.11	10.15	9.80	0.03	0.31	10.11	10.26	0.14	1.43
$13,089 or more	680	70	19.44	19.47	19.21	0.02	0.12	19.44	19.54	0.09	0.49
Stafford Loan status						(Effect size = 0.01)				(Effect size = 0.01)	
Received	1,330	160	42.94	42.36	48.77	-0.58	-1.36	42.94	42.32	-0.62	-1.44
Did not receive	1,900	190	57.06	57.64	51.23	0.58	1.02	57.06	57.68	0.62	1.08

See notes at end of table.

Table H-5. Student-level nonresponse bias analysis for selected variables for students in public 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	1,070	140	35.66	34.85	43.74	-0.81§	-2.27	35.66	34.85	-0.81	-2.26
$1–$6,365	290	30	9.01	9.06	8.46	0.05	0.60	9.01	9.07	0.07	0.72
$6,366–$12,755	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$12,756–$26,000	660	60	19.94	20.26	16.79	0.32	1.58	19.94	20.33	0.39	1.93
$26,001 or more	880	90	26.11	26.36	23.60	0.25	0.96	26.11	26.27	0.16	0.60
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	2,640	290	82.42	82.29	83.76	-0.13	-0.16	82.42	82.46	0.04	0.05
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.02)				(Effect size = 0.02)	
Did not receive	1,070	140	35.59	34.78	43.74	-0.81§	-2.29	35.59	34.78	-0.81	-2.29
Received	2,160	210	64.41	65.22	56.26	0.81§	1.26	64.41	65.22	0.81	1.26
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	1,880	230	59.73	59.42	62.84	-0.31	-0.52	59.73	59.60	-0.13	-0.22
Received	1,190	100	36.33	37.21	27.57	0.88	2.41	36.33	37.09	0.76	2.09
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	1,960	210	62.97	63.58	56.87	0.61	0.97	62.97	63.22	0.25	0.40
Received	1,110	120	33.09	33.04	33.54	-0.05	-0.14	33.09	33.46	0.37	1.13
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-5. Student-level nonresponse bias analysis for selected variables for students in public 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.01)				(Effect size = 0.01)	
Yes	2,650	280	80.37	80.64	77.64	0.27	0.34	80.37	80.83	0.47	0.58
No	580	70	19.63	19.36	22.36	-0.27	-1.39	19.63	19.17	-0.47	-2.38
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	270	30	8.00	7.83	9.68	-0.17	-2.10	8.00	7.93	-0.07	-0.87
Life sciences	470	50	14.49	14.60	13.33	0.12	0.80	14.49	14.46	-0.02	-0.16
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	330	40	11.24	10.90	14.66	-0.34	-3.04	11.24	11.02	-0.22	-1.92
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	250	40	7.66	7.29	11.31	-0.37	-4.77	7.66	7.14	-0.52*	-6.76
Unknown	640	80	20.12	20.26	18.71	0.14	0.70	20.12	20.29	0.18	0.88
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	1,300	130	42.89	43.12	40.62	0.23	0.53	42.89	42.92	0.03	0.08
65%–80%	880	90	28.76	28.80	28.31	0.05	0.16	28.76	28.54	-0.22	-0.76
81%–92%	850	120	21.48	21.29	23.30	-0.18	-0.85	21.48	21.61	0.13	0.62
93% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	670	90	18.60	17.55	29.10	-1.05	-5.65	18.60	17.91	-0.69	-3.70
41.65%–60.34%	1,170	60	35.96	37.71	18.41	1.75*	4.88	35.96	37.98	2.02*	5.63
60.35% or more	1,360	200	44.09	43.59	49.09	-0.50	-1.13	44.09	42.98	-1.11	-2.51
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-5. Student-level nonresponse bias analysis for selected variables for students in public 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = ‡)				(Effect size = ‡)	
No	3,040	330	93.83	93.98	92.25	0.16	0.17	93.83	93.83	#	#
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	830	240	30.75	27.11	67.13	-3.64*	-11.83	30.75	30.73	-0.02	-0.06
2	1,160	90	34.73	35.58	26.23	0.85*	2.45	34.73	34.62	-0.11	-0.33
3	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
§ $p < 0.05$ for difference between weighted respondent mean and weighted nonrespondent mean but not for estimated bias.
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-6. Student-level nonresponse bias analysis for selected variables for students in private nonprofit less-than-4-year institutions using weight WTC000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mid East	40	40	21.01	18.41	23.20	-2.60	-12.37	21.01	10.97	-10.04	-47.79
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	70	70	34.26	33.21	35.15	-1.05	-3.08	34.26	17.68	-16.58	-48.40
Southwest	130	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	50	50	18.73	17.23	20.00	-1.51	-8.04	18.73	47.46	28.72	153.33
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	200	200	98.73	97.99	99.36	-0.74	-0.75	98.73	97.67	-1.06	-1.07
2,629–10,233	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = ‡)				(Effect size = ‡)	
15–23	150	140	70.55	72.05	69.29	1.50	2.13	70.55	53.44	-17.11	-24.25
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	30	30	16.69	15.55	17.65	-1.14	-6.81	16.69	26.61	9.92	59.46
Pell Grant status						(Effect size = 0.03)				(Effect size = 0.15)	
Received	60	60	29.48	30.96	28.23	1.48	5.02	29.48	22.63	-6.85	-23.25
Did not receive	150	140	70.52	69.04	71.77	-1.48	-2.10	70.52	77.37	6.85	9.72
Total Pell Grant amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	50	50	25.80	24.96	26.50	-0.84	-3.25	25.80	19.84	-5.96	-23.09
$1–$3,500	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$3,501–$6,352	40	80	32.96	22.08	42.12	-10.88	-33.01	32.96	40.30	7.34	22.28
$6,353–$13,088	40	40	17.65	19.64	15.97	1.99	11.30	17.65	15.45	-2.20	-12.47
$13,089 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Stafford Loan status						(Effect size = 0.07)				(Effect size = 0.03)	
Received	50	50	29.09	32.26	26.42	3.17	10.89	29.09	30.58	1.49	5.12
Did not receive	150	150	70.91	67.74	73.58	-3.17	-4.47	70.91	69.42	-1.49	-2.10

See notes at end of table.

Table H-6. Student-level nonresponse bias analysis for selected variables for students in private nonprofit less-than-4-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	40	60	26.32	24.92	27.51	-1.40	-5.34	26.32	27.16	0.83	3.16
$1–$6,365	30	50	21.79	17.88	25.08	-3.91	-17.95	21.79	16.53	-5.26	-24.14
$6,366–$12,755	60	60	29.52	26.90	31.73	-2.62	-8.88	29.52	40.71	11.19	37.91
$12,756–$26,000	40	30	13.58	17.39	10.38	3.80	28.01	13.58	9.15	-4.43	-32.62
$26,001 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	160	180	82.76	74.19	89.98	-8.57	-10.36	82.76	85.08	2.31	2.80
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.03)				(Effect size = 0.02)	
Did not receive	40	60	26.32	24.92	27.51	-1.40	-5.34	26.32	27.16	0.83	3.16
Received	160	150	73.68	75.08	72.49	1.40	1.91	73.68	72.84	-0.83	-1.13
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	110	140	60.17	46.76	71.45	-13.41	-22.28	60.17	64.64	4.47	7.43
Received	80	60	33.61	39.62	28.55	6.01	17.89	33.61	19.62	-13.99	-41.64
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	130	160	74.21	62.10	84.41	-12.11	-16.32	74.21	70.98	-3.23	-4.35
Received	60	40	19.57	24.28	15.59	4.72	24.12	19.57	13.27	-6.29	-32.17
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-6. Student-level nonresponse bias analysis for selected variables for students in private nonprofit less-than-4-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.07)				(Effect size = 0.12)	
Yes	190	170	85.35	87.77	83.31	2.42	2.84	85.35	89.55	4.20	4.92
No	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	90	60	37.55	49.64	27.37	12.10	32.21	37.55	33.96	-3.59	-9.57
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
81%–92%	110	110	47.60	50.99	44.74	3.39	7.13	47.60	63.13	15.54	32.64
93% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
60.35% or more	50	50	25.87	27.13	24.81	1.26	4.87	25.87	15.35	-10.52	-40.66
Unknown	50	40	18.32	17.09	19.36	-1.23	-6.72	18.32	47.40	29.08	158.70

See notes at end of table.

Table H-6. Student-level nonresponse bias analysis for selected variables for students in private nonprofit less-than-4-year institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.15)				(Effect size = 0.09)	
No	160	140	74.42	80.81	69.05	6.39	8.59	74.42	78.54	4.12	5.53
Yes	50	70	25.58	19.19	30.95	-6.39	-24.98	25.58	21.46	-4.12	-16.11
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	60	100	38.03	29.60	45.13	-8.43	-22.18	38.03	62.31	24.28	63.85
2	70	80	38.55	32.98	43.24	-5.57	-14.45	38.55	19.21	-19.34	-50.17
3	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-7. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	210	40	13.69	12.51	24.53	-1.18	-8.60	13.69	13.12	-0.57	-4.17
Mid East	490	50	21.19	21.10	22.01	-0.09	-0.42	21.19	21.22	0.03	0.13
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	370	50	21.34	21.86	16.55	0.52	2.44	21.34	22.24	0.90	4.23
Southwest	130	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	990	150	60.37	58.46	77.94	-1.91*	-3.16	60.37	59.47	-0.89	-1.48
2,629–10,233	1,070	50	36.64	38.26	21.75	1.62*	4.41	36.64	36.72	0.08	0.23
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = ‡)				(Effect size = ‡)	
15–23	1,980	180	97.72	98.18	93.42	0.47	0.48	97.72	98.01	0.29	0.30
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status						(Effect size = 0.01)				(Effect size = 0.01)	
Received	1,170	100	60.86	61.22	57.59	0.36	0.58	60.86	61.34	0.48	0.79
Did not receive	940	90	39.14	38.78	42.41	-0.36	-0.91	39.14	38.66	-0.48	-1.23
Total Pell Grant amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	1,020	100	53.58	53.47	54.62	-0.11	-0.21	53.58	53.88	0.30	0.55
$1–$3,500	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$13,089 or more	420	40	20.00	19.78	22.07	-0.22	-1.12	20.00	19.24	-0.76	-3.81
Stafford Loan status						(Effect size = 0.01)				(Effect size = 0.02)	
Received	630	60	30.34	29.79	35.40	-0.55	-1.81	30.34	31.13	0.79	2.61
Did not receive	1,480	130	69.66	70.21	64.60	0.55	0.79	69.66	68.87	-0.79	-1.14

See notes at end of table.

Table H-7. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	530	60	27.34	26.47	35.36	-0.87	-3.18	27.34	28.56	1.23	4.48
$1–$6,365	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,366–$12,755	230	30	9.94	9.69	12.21	-0.25	-2.48	9.94	9.40	-0.54	-5.48
$12,756–$26,000	420	30	18.37	18.76	14.73	0.39	2.15	18.37	18.04	-0.33	-1.79
$26,001 or more	690	50	34.58	35.30	27.90	0.72	2.10	34.58	34.29	-0.28	-0.82
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	1,590	160	75.27	74.36	83.66	-0.91*	-1.21	75.27	75.41	0.14	0.19
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.02)				(Effect size = 0.03)	
Did not receive	530	60	27.29	26.42	35.36	-0.88	-3.21	27.29	28.52	1.22	4.49
Received	1,580	130	72.71	73.58	64.64	0.88	1.20	72.71	71.48	-1.22	-1.68
Institutional aid status						(Effect size = 0.04)				(Effect size = 0.04)	
Did not receive	320	50	17.81	17.46	21.06	-0.35	-1.98	17.81	17.87	0.06	0.32
Received	1,380	120	76.69	77.86	65.84	1.18*	1.54	76.69	77.54	0.85	1.11
Unknown	420	30	5.50	4.68	13.10	-0.83	-15.00	5.50	4.59	-0.91	-16.48
State aid status						(Effect size = 0.04)				(Effect size = 0.04)	
Did not receive	1,190	120	66.74	66.99	64.40	0.25	0.38	66.74	66.52	-0.22	-0.33
Received	500	40	27.76	28.33	22.50	0.57	2.06	27.76	28.88	1.13	4.05
Unknown	420	30	5.50	4.68	13.10	-0.83	-15.00	5.50	4.59	-0.91	-16.48

See notes at end of table.

Table H-7. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.02)				(Effect size = 0.01)	
Yes	1,870	160	86.01	86.68	79.87	0.67	0.77	86.01	86.49	0.48	0.56
No	240	30	13.99	13.32	20.13	-0.67	-4.77	13.99	13.51	-0.48	-3.42
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	560	90	35.58	34.38	46.67	-1.20	-3.38	35.58	34.02	-1.57	-4.41
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
81%–92%	570	50	18.51	18.34	20.07	-0.17	-0.92	18.51	18.28	-0.22	-1.20
93% or more	1,260	130	64.66	64.10	69.87	-0.57	-0.87	64.66	61.61	-3.05	-4.72
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
41.65%–60.34%	610	100	34.78	32.86	52.51	-1.92§	-5.53	34.78	32.84	-1.94	-5.58
60.35% or more	880	60	46.65	48.15	32.85	1.50	3.21	46.65	48.05	1.40	2.99
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-7. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = ‡)				(Effect size = ‡)	
No	1,850	170	89.86	89.79	90.51	-0.07	-0.08	89.86	89.86	#	#
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	670	130	33.00	28.21	77.13	-4.79*	-14.51	33.00	34.26	1.26	3.82
2	730	50	34.30	35.98	18.85	1.68*	4.89	34.30	33.75	-0.56	-1.62
3	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
§ $p < 0.05$ for difference between weighted respondent mean and weighted nonrespondent mean but not for estimated bias.
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-8. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTC000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	260	40	14.09	13.04	22.03	-1.05	-7.42	14.09	13.09	-1.00	-7.06
Mid East	890	140	33.26	32.52	38.89	-0.74	-2.23	33.26	31.34	-1.92	-5.77
Great Lakes	500	50	12.84	12.65	14.25	-0.19	-1.45	12.84	12.35	-0.48	-3.77
Plains	210	60	5.66	6.31	0.77	0.64*	11.36	5.66	6.42	0.76*	13.46
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	130	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
2,629–10,233	1,240	230	44.16	43.69	47.73	-0.47	-1.06	44.16	43.53	-0.64	-1.44
10,234–26,884	700	80	34.37	34.68	32.04	0.31	0.89	34.37	35.45	1.08	3.14
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = ‡)				(Effect size = ‡)	
15–23	2,340	340	98.56	98.85	96.40	0.28	0.29	98.56	98.79	0.23	0.23
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status						(Effect size = 0.01)				(Effect size = 0.02)	
Received	1,680	250	71.22	70.58	76.08	-0.64	-0.90	71.22	70.50	-0.73	-1.02
Did not receive	750	100	28.78	29.42	23.92	0.64	2.22	28.78	29.50	0.73	2.53
Total Pell Grant amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	1,480	230	64.34	63.90	67.69	-0.44	-0.69	64.34	64.04	-0.30	-0.47
$1–$3,500	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$13,089 or more	420	60	16.79	16.99	15.30	0.20	1.17	16.79	16.99	0.19	1.16
Stafford Loan status						(Effect size = #)				(Effect size = #)	
Received	960	150	42.34	42.22	43.31	-0.13	-0.30	42.34	42.45	0.11	0.26
Did not receive	1,470	200	57.66	57.78	56.69	0.13	0.22	57.66	57.55	-0.11	-0.19

See notes at end of table.

Table H-8. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	830	140	38.65	38.29	41.39	-0.36	-0.93	38.65	38.73	0.08	0.22
$1–$6,365	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,366–$12,755	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$12,756–$26,000	500	60	19.03	19.42	16.08	0.39	2.04	19.03	18.98	-0.05	-0.26
$26,001 or more	760	110	29.65	29.55	30.38	-0.10	-0.33	29.65	29.74	0.10	0.32
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	1,920	270	78.87	79.09	77.19	0.22	0.28	78.87	79.30	0.43	0.55
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	240	40	10.16	9.70	13.68	-0.46	-4.56	10.16	9.56	-0.61	-5.98
Federal aid status						(Effect size = 0.01)				(Effect size = #)	
Did not receive	820	140	38.15	37.73	41.39	-0.43	-1.12	38.15	38.08	-0.07	-0.19
Received	1,610	210	61.85	62.27	58.61	0.43	0.69	61.85	61.92	0.07	0.12
Institutional aid status						(Effect size = 0.05)				(Effect size = 0.06)	
Did not receive	580	110	24.69	24.84	23.55	0.15	0.61	24.69	25.50	0.81	3.27
Received	1,600	190	65.62	66.95	55.48	1.33	2.03	65.62	66.42	0.80	1.22
Unknown	250	50	9.70	8.21	20.97	-1.48	-15.30	9.70	8.09	-1.61	-16.58
State aid status						(Effect size = 0.05)				(Effect size = 0.05)	
Did not receive	1,670	220	70.79	71.77	63.40	0.97	1.37	70.79	71.91	1.12	1.58
Received	510	80	19.51	20.02	15.63	0.51	2.62	19.51	20.00	0.49	2.50
Unknown	250	50	9.70	8.21	20.97	-1.48	-15.30	9.70	8.09	-1.61	-16.58

See notes at end of table.

Table H-8. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.03)				(Effect size = 0.02)	
Yes	2,000	260	74.68	75.81	66.12	1.13	1.51	74.68	75.53	0.85	1.14
No	430	90	25.32	24.19	33.88	-1.13	-4.45	25.32	24.47	-0.85	-3.35
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	380	70	16.56	16.41	17.66	-0.14	-0.88	16.56	16.80	0.24	1.43
Social/behavioral sciences	200	30	9.35	9.35	9.42	-0.01	-0.09	9.35	9.32	-0.03	-0.34
Life sciences	240	30	10.30	10.42	9.41	0.12	1.14	10.30	10.14	-0.17	-1.62
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	310	30	11.86	11.24	16.59	-0.62	-5.24	11.86	11.35	-0.51	-4.34
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	590	100	25.43	25.96	21.39	0.53	2.09	25.43	26.14	0.71	2.81
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	540	40	22.16	23.71	10.37	1.55*	7.00	22.16	23.49	1.33	6.00
65%–80%	270	90	16.25	15.60	21.22	-0.65	-4.02	16.25	15.32	-0.94	-5.76
81%–92%	520	40	15.81	16.06	13.91	0.25	1.58	15.81	16.50	0.69	4.37
93% or more	1,100	190	45.60	44.43	54.50	-1.17	-2.57	45.60	44.51	-1.09	-2.39
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
41.65%–60.34%	650	60	26.39	26.91	22.43	0.52	1.97	26.39	27.31	0.92	3.49
60.35% or more	1,540	280	66.14	65.20	73.31	-0.94	-1.43	66.14	64.47	-1.67	-2.53
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-8. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = ‡)				(Effect size = ‡)	
No	2,300	330	95.27	95.05	96.94	-0.22	-0.23	95.27	95.20	-0.07	-0.08
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	790	220	37.87	34.18	65.92	-3.69*	-9.74	37.87	37.90	0.03	0.07
2	770	90	30.78	31.72	23.71	0.93	3.02	30.78	30.67	-0.11	-0.37
3	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-9. Student-level nonresponse bias analysis for selected variables for students in private for-profit less-than-2-year institutions using weight WTC000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = 0.33)				(Effect size = 0.25)	
New England	50	40	8.31	7.15	10.01	-1.17	-14.02	8.31	9.13	0.81	9.79
Mid East	120	110	11.18	10.97	11.48	-0.21	-1.87	11.18	15.47	4.29	38.38
Great Lakes	70	180	6.96	4.29	10.83	-2.67	-38.34	6.96	4.62	-2.33	-33.54
Plains	70	40	6.76	8.44	4.33	1.68	24.78	6.76	8.70	1.93	28.60
Southeast	150	110	19.56	15.78	25.06	-3.78	-19.35	19.56	15.11	-4.45	-22.75
Southwest	130	140	28.23	39.74	11.51	11.51	40.78	28.23	31.63	3.40	12.04
Rocky Mountains	40	70	7.24	8.60	5.25	1.37	18.88	7.24	7.76	0.52	7.25
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	650	750	98.23	99.55	96.31	1.32	1.35	98.23	99.53	1.30	1.32
2,629–10,233	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = 0.11)				(Effect size = 0.08)	
15–23	460	490	64.86	70.14	57.18	5.28*	8.15	64.86	67.93	3.07	4.73
24–29	90	140	14.13	11.98	17.26	-2.15§	-15.22	14.13	11.60	-2.53*	-17.89
30 or more	110	150	21.01	17.88	25.56	-3.13§	-14.91	21.01	20.47	-0.54	-2.57
Pell Grant status						(Effect size = 0.04)				(Effect size = 0.04)	
Received	120	80	14.97	16.50	12.76	1.52	10.17	14.97	16.25	1.28	8.53
Did not receive	530	700	85.03	83.50	87.24	-1.52	-1.79	85.03	83.75	-1.28	-1.50
Total Pell Grant amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	100	80	12.59	12.14	13.24	-0.45	-3.56	12.59	12.37	-0.21	-1.70
$1–$3,500	120	190	20.39	17.15	25.08	-3.23*	-15.86	20.39	19.54	-0.85	-4.16
$3,501–$6,352	210	390	37.99	35.33	41.85	-2.66	-7.00	37.99	34.46	-3.53	-9.29
$6,353–$13,088	180	100	23.40	27.37	17.62	3.98§	17.00	23.40	26.73	3.33	14.23
$13,089 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Stafford Loan status						(Effect size = 0.01)				(Effect size = 0.11)	
Received	90	70	14.86	15.23	14.31	0.37	2.52	14.86	18.63	3.77	25.35
Did not receive	560	700	85.14	84.77	85.69	-0.37	-0.44	85.14	81.37	-3.77	-4.42

See notes at end of table.

Table H-9. Student-level nonresponse bias analysis for selected variables for students in private for-profit less-than-2-year institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	90	130	15.58	13.01	19.32	-2.58	-16.53	15.58	16.43	0.85	5.44
$1–$6,365	160	210	28.37	27.88	29.09	-0.49	-1.73	28.37	29.33	0.95	3.36
$6,366–$12,755	250	390	39.98	37.79	43.15	-2.19	-5.47	39.98	36.10	-3.88	-9.70
$12,756–$26,000	130	50	13.30	16.85	8.13	3.56*	26.74	13.30	15.00	1.70	12.77
$26,001 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	570	710	91.10	89.57	93.32	-1.53§	-1.68	91.10	89.44	-1.65	-1.82
$1–$6,900	40	40	5.48	6.33	4.24	0.85	15.53	5.48	7.03	1.55	28.23
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.07)				(Effect size = 0.02)	
Did not receive	90	130	15.58	13.01	19.32	-2.58	-16.53	15.58	16.43	0.85	5.44
Received	570	650	84.42	86.99	80.68	2.58	3.05	84.42	83.57	-0.85	-1.00
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	560	750	75.53	63.56	92.91	-11.97	-15.85	75.53	73.88	-1.65	-2.19
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	540	760	75.98	61.74	96.66	-14.24	-18.74	75.98	72.40	-3.58	-4.71
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-9. Student-level nonresponse bias analysis for selected variables for students in private for-profit less-than-2-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = ‡)				(Effect size = ‡)	
Yes	610	750	94.39	93.78	95.28	-0.61	-0.65	94.39	92.62	-1.77	-1.87
No	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	350	470	47.15	58.40	30.82	11.24	23.85	47.15	53.79	6.64	14.09
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	180	200	39.54	31.42	51.35	-8.13	-20.55	39.54	33.88	-5.66	-14.31
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	70	70	5.34	5.72	4.79	0.38	7.10	5.34	6.24	0.90	16.84
65%–80%	380	240	52.43	63.34	36.59	10.91	20.80	52.43	58.08	5.65	10.77
81%–92%	170	450	35.46	22.94	53.64	-12.52	-35.30	35.46	27.07	-8.39	-23.65
93% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	650	770	99.88	99.85	99.91	-0.02	-0.02	99.88	99.90	0.02	0.02

See notes at end of table.

Table H-9. Student-level nonresponse bias analysis for selected variables for students in private for-profit less-than-2-year institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.05)				(Effect size = 0.05)	
No	450	450	61.47	64.02	57.76	2.56§	4.16	61.47	63.98	2.52	4.09
Yes	210	330	38.53	35.98	42.24	-2.56§	-6.63	38.53	36.02	-2.52	-6.53
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	190	450	36.23	20.77	58.68	-15.46*	-42.67	36.23	31.14	-5.08	-14.04
2	160	260	24.26	19.08	31.79	-5.18	-21.36	24.26	24.25	-0.01	-0.06
3	180	50	24.36	36.53	6.70	12.17*	49.93	24.36	28.67	4.31	17.69
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
§ $p < 0.05$ for difference between weighted respondent mean and weighted nonrespondent mean but not for estimated bias.
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-10. Student-level nonresponse bias analysis for selected variables for students in private for-profit 2-year institutions using weight WTC000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	40	40	3.12	1.83	4.72	-1.29	-41.40	3.12	2.98	-0.14	-4.48
Mid East	340	210	20.76	19.72	22.06	-1.05	-5.04	20.76	20.88	0.12	0.58
Great Lakes	260	50	12.29	17.62	5.67	5.34*	43.44	12.29	16.81	4.52	36.80
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	270	140	20.07	20.25	19.85	0.18	0.88	20.07	22.20	2.14	10.64
Southwest	130	190	13.53	12.83	14.40	-0.70	-5.18	13.53	9.58	-3.95	-29.21
Rocky Mountains	70	130	6.09	6.09	6.10	#	-0.02	6.09	5.23	-0.87	-14.21
Far West	440	540	22.31	20.17	24.97	-2.15	-9.62	22.31	19.44	-2.87	-12.87
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	1,250	920	71.57	76.55	65.39	4.98	6.96	71.57	79.25	7.69	10.74
2,629–10,233	400	400	25.63	18.89	33.98	-6.73	-26.28	25.63	16.91	-8.71	-34.01
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = 0.05)				(Effect size = 0.08)	
15–23	1,250	920	70.73	72.96	67.95	2.24	3.16	70.73	68.08	-2.65	-3.74
24–29	220	180	13.24	12.85	13.73	-0.40	-2.99	13.24	15.73	2.49	18.78
30 or more	230	210	16.03	14.19	18.31	-1.84	-11.48	16.03	16.19	0.16	1.01
Pell Grant status						(Effect size = #)				(Effect size = 0.02)	
Received	330	260	22.30	22.36	22.22	0.06	0.27	22.30	21.61	-0.68	-3.07
Did not receive	1,370	1,060	77.70	77.64	77.78	-0.06	-0.08	77.70	78.39	0.68	0.88
Total Pell Grant amount received						(Effect size = 0.14)				(Effect size = 0.08)	
$0 or unknown	250	240	17.64	16.19	19.43	-1.45	-8.19	17.64	16.09	-1.54	-8.75
$1–$3,500	310	250	20.10	18.58	21.98	-1.52	-7.55	20.10	20.56	0.46	2.29
$3,501–$6,352	580	540	32.03	31.67	32.47	-0.36	-1.11	32.03	34.98	2.95	9.22
$6,353–$13,088	410	260	22.98	22.90	23.08	-0.08	-0.35	22.98	20.75	-2.23	-9.69
$13,089 or more	150	40	7.26	10.66	3.05	3.40*	46.82	7.26	7.62	0.36	4.91
Stafford Loan status						(Effect size = 0.02)				(Effect size = 0.03)	
Received	180	170	13.72	14.39	12.89	0.67	4.88	13.72	12.83	-0.90	-6.53
Did not receive	1,510	1,150	86.28	85.61	87.11	-0.67	-0.78	86.28	87.17	0.90	1.04

See notes at end of table.

Table H-10. Student-level nonresponse bias analysis for selected variables for students in private for-profit 2-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.05)				(Effect size = 0.09)	
$0 or unknown	200	180	14.28	14.22	14.36	-0.06	-0.44	14.28	14.63	0.35	2.43
$1–$6,365	430	290	23.73	24.13	23.24	0.40	1.67	23.73	23.69	-0.04	-0.17
$6,366–$12,755	650	570	32.99	32.18	33.99	-0.81	-2.46	32.99	36.30	3.31	10.04
$12,756–$26,000	330	230	23.17	22.54	23.93	-0.62	-2.68	23.17	20.37	-2.80	-12.07
$26,001 or more	90	50	5.84	6.93	4.48	1.10	18.78	5.84	5.01	-0.82	-14.09
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	1,440	1,120	84.00	85.35	82.33	1.34	1.60	84.00	87.48	3.48*	4.14
$1–$6,900	100	80	5.62	5.42	5.87	-0.20	-3.53	5.62	4.91	-0.72	-12.75
$6,901–$14,995	80	60	5.25	5.14	5.39	-0.11	-2.13	5.25	4.38	-0.86	-16.48
$14,996–$34,345	70	60	4.75	3.73	6.01	-1.02	-21.50	4.75	2.86	-1.89	-39.73
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = #)				(Effect size = 0.01)	
Did not receive	200	180	14.28	14.22	14.36	-0.06	-0.44	14.28	14.63	0.35	2.43
Received	1,500	1,140	85.72	85.78	85.64	0.06	0.07	85.72	85.37	-0.35	-0.40
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	1,380	1,140	82.78	79.89	86.36	-2.89	-3.49	82.78	83.74	0.96	1.16
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	210	180	9.87	7.26	13.11	-2.61	-26.46	9.87	5.58	-4.29	-43.47
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	1,430	1,120	85.66	87.05	83.93	1.39	1.62	85.66	88.83	3.17	3.70
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	210	180	9.87	7.26	13.11	-2.61	-26.46	9.87	5.58	-4.29	-43.47

See notes at end of table.

Table H-10. Student-level nonresponse bias analysis for selected variables for students in private for-profit 2-year institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.03)				(Effect size = 0.05)	
Yes	1,630	1,280	96.01	95.42	96.75	-0.59	-0.62	96.01	95.09	-0.92	-0.96
No	70	40	3.99	4.58	3.25	0.59	14.88	3.99	4.91	0.92	23.05
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	1,020	670	37.67	43.28	30.72	5.61	14.89	37.67	44.80	7.13	18.93
Vocational/technical	260	370	30.27	21.16	41.56	-9.11§	-30.08	30.27	16.60	-13.67*	-45.17
Other technical/professional	250	80	11.90	16.54	6.15	4.64*	39.00	11.90	20.62	8.72*	73.26
Unknown	30	100	8.19	3.67	13.79	-4.52	-55.16	8.19	3.09	-5.10*	-62.28
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	430	370	21.45	13.91	30.81	-7.55*	-35.17	21.45	12.97	-8.49*	-39.56
65%–80%	480	530	33.16	29.24	38.03	-3.92	-11.83	33.16	36.64	3.48	10.50
81%–92%	550	370	28.42	33.11	22.60	4.69	16.51	28.42	30.20	1.78	6.27
93% or more	230	60	16.97	23.75	8.57	6.78	39.94	16.97	20.19	3.22	19.00
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	130	50	6.04	6.99	4.86	0.95	15.71	6.04	7.84	1.80	29.79
41.65%–60.34%	450	490	34.40	25.66	45.24	-8.74	-25.42	34.40	25.94	-8.46	-24.58
60.35% or more	1,110	760	56.88	64.28	47.69	7.41	13.03	56.88	63.27	6.40	11.24
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-10. Student-level nonresponse bias analysis for selected variables for students in private for-profit 2-year institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.01)				(Effect size = 0.02)	
No	1,140	830	64.02	64.62	63.28	0.60	0.93	64.02	63.18	-0.84	-1.31
Yes	550	490	35.98	35.38	36.72	-0.60	-1.66	35.98	36.82	0.84	2.32
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	460	770	50.26	34.05	70.35	-16.21*	-32.25	50.26	40.82	-9.44*	-18.79
2	620	410	28.52	34.32	21.33	5.80*	20.33	28.52	37.36	8.84*	31.00
3	310	100	11.62	15.91	6.31	4.29*	36.89	11.62	11.94	0.32	2.71
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
§ $p < 0.05$ for difference between weighted respondent mean and weighted nonrespondent mean but not for estimated bias.
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-11. Student-level nonresponse bias analysis for selected variables for students in private for-profit 4-year institutions using weight WTC000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = 0.19)				(Effect size = 0.21)	
New England	140	170	2.32	1.86	3.41	-0.45	-19.54	2.32	2.33	0.01	0.63
Mid East	550	370	8.49	7.23	11.51	-1.26	-14.79	8.49	6.95	-1.54	-18.09
Great Lakes	360	410	6.98	5.35	10.89	-1.63	-23.32	6.98	9.32	2.35	33.65
Plains	380	440	15.27	17.66	9.52	2.39	15.63	15.27	18.99	3.72	24.39
Southeast	880	1,310	21.67	16.77	33.46	-4.90	-22.60	21.67	14.90	-6.76*	-31.22
Southwest	130	460	25.73	31.47	11.90	5.74	22.32	25.73	25.91	0.18	0.72
Rocky Mountains	270	170	7.03	8.08	4.51	1.05	14.91	7.03	6.79	-0.25	-3.54
Far West	930	760	12.53	11.58	14.80	-0.95	-7.55	12.53	14.80	2.28	18.19
Institution total enrollment						(Effect size = 0.20)				(Effect size = 0.11)	
0–2,628	1,720	2,280	25.73	21.40	36.17	-4.33*	-16.84	25.73	27.85	2.12	8.24
2,629–10,233	1,570	1,210	18.96	16.51	24.88	-2.45	-12.94	18.96	17.48	-1.48	-7.82
10,234–26,884	240	350	8.38	5.62	15.03	-2.76	-32.96	8.38	5.65	-2.73	-32.53
26,885 or more	1,170	250	46.92	56.47	23.92	9.55*	20.35	46.92	49.01	2.09	4.45
Age as of December 31, 2011						(Effect size = 0.04)				(Effect size = 0.05)	
15–23	3,110	2,510	50.64	49.04	54.50	-1.60	-3.16	50.64	49.02	-1.62	-3.21
24–29	730	750	20.06	19.86	20.54	-0.20	-1.00	20.06	21.96	1.90	9.47
30 or more	860	820	29.30	31.10	24.96	1.80	6.15	29.30	29.02	-0.28	-0.94
Pell Grant status						(Effect size = 0.01)				(Effect size = 0.01)	
Received	1,190	970	24.97	25.61	23.43	0.64	2.56	24.97	25.40	0.43	1.72
Did not receive	3,510	3,110	75.03	74.39	76.57	-0.64	-0.85	75.03	74.60	-0.43	-0.57
Total Pell Grant amount received						(Effect size = 0.06)				(Effect size = 0.12)	
$0 or unknown	850	800	20.29	20.55	19.67	0.26	1.27	20.29	24.74	4.45	21.94
$1–$3,500	870	1,030	26.27	25.39	28.40	-0.88	-3.36	26.27	24.65	-1.62	-6.16
$3,501–$6,352	720	860	14.15	12.54	18.02	-1.61*	-11.35	14.15	12.41	-1.74	-12.28
$6,353–$13,088	1,050	780	20.83	21.28	19.75	0.45	2.15	20.83	19.63	-1.20	-5.77
$13,089 or more	1,210	600	18.46	20.24	14.17	1.78*	9.65	18.46	18.56	0.11	0.57
Stafford Loan status						(Effect size = 0.04)				(Effect size = 0.02)	
Received	770	680	22.05	23.51	18.53	1.46	6.62	22.05	22.98	0.93	4.21
Did not receive	3,930	3,400	77.95	76.49	81.47	-1.46	-1.87	77.95	77.02	-0.93	-1.19

See notes at end of table.

Table H-11. Student-level nonresponse bias analysis for selected variables for students in private for-profit 4-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.03)				(Effect size = 0.10)	
$0 or unknown	640	720	20.67	20.64	20.76	-0.04	-0.17	20.67	24.66	3.99	19.28
$1–$6,365	1,000	960	24.94	24.75	25.42	-0.20	-0.79	24.94	23.99	-0.95	-3.82
$6,366–$12,755	800	790	15.08	14.13	17.37	-0.95	-6.32	15.08	13.12	-1.96*	-12.97
$12,756–$26,000	1,120	780	21.83	22.97	19.09	1.14	5.21	21.83	21.14	-0.69	-3.16
$26,001 or more	1,150	840	17.47	17.52	17.35	0.05	0.28	17.47	17.08	-0.39	-2.22
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = 0.03)				(Effect size = 0.05)	
$0 or unknown	3,840	3,530	90.53	91.02	89.34	0.49	0.54	90.53	90.83	0.30	0.33
$1–$6,900	210	160	2.94	2.61	3.73	-0.33	-11.22	2.94	2.41	-0.53	-17.89
$6,901–$14,995	200	160	2.03	1.85	2.45	-0.17	-8.61	2.03	1.83	-0.19	-9.61
$14,996–$34,345	230	130	2.43	2.26	2.81	-0.16	-6.62	2.43	2.36	-0.07	-2.71
$34,346 or more	230	110	2.08	2.25	1.67	0.17	8.31	2.08	2.57	0.48	23.22
Federal aid status						(Effect size = #)				(Effect size = 0.10)	
Did not receive	640	720	20.65	20.64	20.66	-0.01	-0.04	20.65	24.66	4.01	19.44
Received	4,060	3,360	79.35	79.36	79.34	0.01	0.01	79.35	75.34	-4.01	-5.06
Institutional aid status						(Effect size = 0.18)				(Effect size = 0.20)	
Did not receive	4,140	2,600	87.58	93.09	74.31	5.51*	6.29	87.58	93.28	5.70*	6.51
Received	140	110	3.67	3.10	5.05	-0.57	-15.59	3.67	3.55	-0.12	-3.21
Unknown	430	1,360	8.75	3.81	20.64	-4.94*	-56.43	8.75	3.17	-5.58*	-63.79
State aid status						(Effect size = 0.18)				(Effect size = 0.20)	
Did not receive	3,860	2,400	86.26	92.16	72.05	5.90*	6.84	86.26	91.91	5.65*	6.55
Received	410	320	4.99	4.03	7.31	-0.96	-19.32	4.99	4.92	-0.07	-1.44
Unknown	430	1,360	8.75	3.81	20.64	-4.94*	-56.43	8.75	3.17	-5.58*	-63.79

See notes at end of table.

Table H-11. Student-level nonresponse bias analysis for selected variables for students in private for-profit 4-year institutions using weight WTC000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.01)				(Effect size = #)	
Yes	4,470	3,910	93.59	93.26	94.38	-0.33	-0.35	93.59	93.47	-0.12	-0.13
No	230	170	6.41	6.74	5.62	0.33	5.12	6.41	6.53	0.12	1.90
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	720	330	10.10	11.47	6.80	1.37	13.55	10.10	11.39	1.29	12.77
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	650	850	11.36	9.38	16.15	-1.99*	-17.49	11.36	9.28	-2.08	-18.32
Engineering	150	710	3.59	0.93	10.01	-2.66*	-74.06	3.59	0.88	-2.71*	-75.45
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	920	640	28.94	29.90	26.64	0.96	3.31	28.94	26.55	-2.40	-8.29
Health	700	720	12.97	13.33	12.08	0.37	2.84	12.97	13.04	0.07	0.54
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	1,200	690	22.29	22.68	21.37	0.38	1.71	22.29	22.74	0.44	1.98
Unknown	80	70	2.77	2.23	4.08	-0.54	-19.63	2.77	3.25	0.48	17.25
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	460	360	10.00	11.23	7.03	1.23	12.34	10.00	11.32	1.32	13.25
65%–80%	1,130	1,410	16.56	13.45	24.04	-3.11	-18.75	16.56	17.79	1.23	7.42
81%–92%	2,320	1,550	58.56	62.86	48.20	4.30	7.34	58.56	58.20	-0.36	-0.62
93% or more	800	760	14.88	12.45	20.73	-2.43	-16.32	14.88	12.69	-2.19	-14.72
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = 0.14)				(Effect size = 0.12)	
23.64% or less	1,690	1,070	49.51	55.14	35.96	5.62	11.36	49.51	47.15	-2.37	-4.78
23.65%–41.64%	1,710	1,890	27.82	24.09	36.81	-3.73	-13.41	27.82	31.61	3.79	13.62
41.65%–60.34%	530	430	6.81	6.40	7.80	-0.41	-6.05	6.81	6.44	-0.37	-5.41
60.35% or more	220	300	2.72	1.35	6.02	-1.37	-50.45	2.72	1.27	-1.45	-53.30
Unknown	550	400	13.14	13.03	13.40	-0.11	-0.83	13.14	13.53	0.39	3.00

See notes at end of table.

Table H-11. Student-level nonresponse bias analysis for selected variables for students in private for-profit 4-year institutions using weight WTC000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.04)				(Effect size = 0.01)	
No	3,360	2,510	63.48	65.44	58.78	1.95	3.07	63.48	63.05	-0.43	-0.68
Yes	1,340	1,570	36.52	34.56	41.22	-1.95	-5.35	36.52	36.95	0.43	1.19
Total number of institutions attended						(Effect size = 0.15)				(Effect size = 0.24)	
1	1,500	1,200	38.53	40.23	34.42	1.71	4.43	38.53	49.90	11.37*	29.50
2	1,240	2,070	36.23	30.10	51.02	-6.14*	-16.94	36.23	27.15	-9.08*	-25.06
3	950	580	13.95	15.24	10.83	1.29	9.27	13.95	12.20	-1.74*	-12.51
4	510	160	5.08	6.05	2.75	0.97§	19.03	5.08	4.65	-0.43	-8.48
5 or more	500	70	6.21	8.38	0.98	2.17*	34.96	6.21	6.10	-0.11	-1.81

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
§ $p < 0.05$ for difference between weighted respondent mean and weighted nonrespondent mean but not for estimated bias.
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-12. Student-level nonresponse bias analysis for selected variables for students in all institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Control and level of institution						(Effect size = 0.23)				(Effect size = 0.05)	
Public less-than-2-year	70	110	0.19	0.09	0.27	-0.09*	-49.59	0.19	0.14	-0.05	-25.05
Public 2-year	4,950	5,690	37.09	32.01	41.84	-5.07*	-13.68	37.09	37.00	-0.09	-0.24
Public 4-year non-doctorate-granting	1,070	800	11.36	11.88	10.88	0.52	4.58	11.36	11.61	0.25	2.19
Public 4-year doctorate-granting	2,270	1,310	23.08	28.36	18.14	5.28*	22.88	23.08	23.24	0.16	0.69
Private nonprofit less-than-4-year	120	290	0.36	0.18	0.53	-0.18*	-49.07	0.36	0.35	-0.01	-2.81
Private nonprofit 4-year non-doctorate-granting	1,410	890	8.49	10.21	6.88	1.72*	20.25	8.49	9.13	0.64	7.55
Private nonprofit 4-year doctorate-granting	1,790	990	9.02	11.59	6.62	2.57*	28.47	9.02	9.31	0.29	3.17
Private for-profit less-than-2-year	300	1,130	2.99	1.37	4.51	-1.62*	-54.29	2.99	2.57	-0.42	-14.10
Private for-profit 2-year	840	2,180	2.95	1.37	4.42	-1.57*	-53.40	2.95	2.74	-0.21	-7.00
Private for-profit 4-year	2,520	6,260	4.47	2.93	5.92	-1.55*	-34.54	4.47	3.91	-0.56	-12.53
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = 0.04)				(Effect size = 0.02)	
New England	800	850	5.85	6.09	5.63	0.24	4.02	5.85	5.96	0.10	1.78
Mid East	2,610	2,820	15.25	15.50	15.01	0.25	1.67	15.25	15.33	0.09	0.56
Great Lakes	2,540	2,860	15.00	15.89	14.17	0.89*	5.92	15.00	15.31	0.31	2.08
Plains	1,040	1,370	7.48	7.56	7.40	0.09	1.16	7.48	7.75	0.28	3.68
Southeast	3,410	4,650	23.82	23.86	23.78	0.05	0.19	23.82	23.94	0.12	0.51
Southwest	2,020	2,590	12.88	12.26	13.47	-0.63	-4.86	12.88	12.77	-0.11	-0.88
Rocky Mountains	670	910	3.95	4.08	3.83	0.13	3.31	3.95	3.64	-0.31	-7.90
Far West	2,260	3,610	15.77	14.75	16.72	-1.02	-6.44	15.77	15.29	-0.47	-3.00
Institution total enrollment						(Effect size = 0.07)				(Effect size = 0.02)	
0–2,628	2,940	6,810	13.85	11.53	16.01	-2.32*	-16.73	13.85	13.95	0.10	0.74
2,629–10,233	4,720	5,480	24.17	24.70	23.68	0.52	2.17	24.17	24.78	0.61	2.50
10,234–26,884	3,960	4,270	32.91	32.64	33.16	-0.27	-0.82	32.91	31.97	-0.94	-2.85
26,885 or more	3,720	3,110	29.07	31.13	27.14	2.06*	7.10	29.07	29.30	0.23	0.79
Age as of December 31, 2011						(Effect size = 0.14)				(Effect size = 0.05)	
15–23	13,190	14,640	87.69	92.30	83.38	4.61*	5.26	87.69	89.42	1.73*	1.97
24–29	960	2,300	5.43	3.40	7.34	-2.04*	-37.46	5.43	4.73	-0.71*	-13.04
30 or more	1,200	2,730	6.87	4.30	9.29	-2.58*	-37.48	6.87	5.86	-1.02*	-14.80
Pell Grant status						(Effect size = 0.05)				(Effect size = 0.03)	
Received	7,030	7,250	51.93	54.46	49.57	2.53*	4.87	51.93	50.36	-1.57*	-3.03
Did not receive	8,320	12,410	48.07	45.54	50.43	-2.53*	-5.26	48.07	49.64	1.57*	3.27

See notes at end of table.

Table H-12. Student-level nonresponse bias analysis for selected variables for students in all institutions using weight WTD000: 2012–17 —Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Pell Grant amount received						(Effect size = 0.17)				(Effect size = 0.12)	
$0 or unknown	5,670	6,180	43.80	44.80	42.87	1.00	2.28	43.80	41.66	-2.14*	-4.89
$1–$3,500	1,850	3,910	13.52	10.22	16.61	-3.30*	-24.41	13.52	11.75	-1.77*	-13.07
$3,501–$6,352	1,820	3,960	11.89	9.26	14.36	-2.64*	-22.16	11.89	10.81	-1.09*	-9.14
$6,353–$13,088	2,530	3,270	13.86	13.55	14.15	-0.31	-2.23	13.86	14.66	0.80*	5.78
$13,089 or more	3,490	2,340	16.93	22.18	12.02	5.25*	30.99	16.93	21.12	4.19*	24.77
Stafford Loan status						(Effect size = 0.05)				(Effect size = 0.04)	
Received	6,700	7,810	52.36	49.81	54.74	-2.55*	-4.87	52.36	50.47	-1.89*	-3.60
Did not receive	8,650	11,850	47.64	50.19	45.26	2.55*	5.35	47.64	49.53	1.89*	3.96
Total Stafford Loan amount received						(Effect size = 0.20)				(Effect size = 0.11)	
$0 or unknown	5,040	6,970	42.31	37.27	47.03	-5.04*	-11.91	42.31	39.18	-3.13*	-7.40
$1–$6,365	1,930	3,790	13.05	10.26	15.67	-2.79*	-21.41	13.05	11.46	-1.60*	-12.24
$6,366–$12,755	2,030	3,700	11.82	10.58	12.98	-1.24*	-10.51	11.82	11.69	-0.13	-1.10
$12,756–$26,000	2,990	2,900	16.10	19.04	13.35	2.94*	18.27	16.10	17.69	1.60*	9.92
$26,001 or more	3,360	2,300	16.72	22.85	10.98	6.14*	36.70	16.72	19.98	3.26*	19.52
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = 0.09)				(Effect size = 0.04)	
$0 or unknown	13,100	17,510	88.39	85.62	90.98	-2.77*	-3.13	88.39	87.19	-1.19*	-1.35
$1–$6,900	470	630	2.39	2.60	2.19	0.22	9.01	2.39	2.61	0.22	9.16
$6,901–$14,995	540	570	2.87	3.39	2.39	0.51*	17.91	2.87	3.11	0.24	8.25
$14,996–$34,345	580	520	2.98	3.77	2.24	0.79*	26.63	2.98	3.27	0.29*	9.63
$34,346 or more	660	440	3.37	4.62	2.21	1.24*	36.91	3.37	3.82	0.45*	13.35
Federal aid status						(Effect size = 0.10)				(Effect size = 0.06)	
Did not receive	5,030	6,960	42.22	37.16	46.95	-5.06*	-11.99	42.22	39.08	-3.13*	-7.43
Received	10,320	12,700	57.78	62.84	53.05	5.06*	8.76	57.78	60.92	3.13*	5.42
Institutional aid status						(Effect size = 0.16)				(Effect size = 0.08)	
Did not receive	9,820	13,960	64.31	58.86	69.41	-5.45*	-8.48	64.31	62.72	-1.59*	-2.47
Received	4,180	2,670	28.75	35.64	22.30	6.89*	23.98	28.75	31.64	2.89*	10.06
Unknown	1,340	3,040	6.94	5.50	8.29	-1.44*	-20.77	6.94	5.64	-1.30*	-18.77
State aid status						(Effect size = 0.10)				(Effect size = 0.07)	
Did not receive	10,830	14,050	71.14	69.08	73.07	-2.06*	-2.89	71.14	70.26	-0.88	-1.23
Received	3,180	2,570	21.92	25.42	18.64	3.50*	15.97	21.92	24.10	2.18*	9.95
Unknown	1,340	3,040	6.94	5.50	8.29	-1.44*	-20.77	6.94	5.64	-1.30*	-18.77

See notes at end of table.

Table H-12. Student-level nonresponse bias analysis for selected variables for students in all institutions using weight WTD000: 2012–17 —Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.08)				(Effect size = 0.09)	
Yes	13,230	16,760	79.73	83.03	76.64	3.30*	4.14	79.73	83.52	3.79*	4.75
No	2,120	2,910	20.27	16.97	23.36	-3.30*	-16.30	20.27	16.48	-3.79*	-18.70
Major						(Effect size = 0.14)				(Effect size = 0.08)	
Humanities	3,160	2,890	23.44	24.09	22.83	0.65	2.78	23.44	24.80	1.37*	5.83
Social/behavioral sciences	580	410	4.53	5.08	4.02	0.54*	12.00	4.53	4.42	-0.11	-2.44
Life sciences	970	560	7.05	8.81	5.40	1.76*	24.99	7.05	7.43	0.38	5.41
Physical sciences/math	170	90	1.35	1.65	1.08	0.30*	21.83	1.35	1.40	0.04	3.21
Computer/information science	610	1,440	2.23	2.00	2.44	-0.23	-10.11	2.23	2.22	-0.01	-0.65
Engineering	670	1,270	4.59	5.14	4.07	0.55*	12.02	4.59	4.86	0.28	6.00
Education	460	330	3.17	3.70	2.68	0.53*	16.69	3.17	3.47	0.30	9.34
Business/management	1,540	2,080	9.83	9.07	10.54	-0.76*	-7.70	9.83	9.04	-0.79*	-7.99
Health	2,240	3,910	10.12	9.20	10.99	-0.92*	-9.13	10.12	10.89	0.76*	7.55
Vocational/technical	560	1,470	3.59	1.78	5.28	-1.81*	-50.37	3.59	2.41	-1.17*	-32.73
Other technical/professional	1,860	2,810	10.39	8.92	11.77	-1.47*	-14.14	10.39	9.92	-0.47	-4.51
Unknown	2,530	2,410	19.71	20.56	18.92	0.85	4.31	19.71	19.14	-0.57	-2.91
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = 0.08)				(Effect size = 0.03)	
64% or less	4,590	4,490	34.69	36.62	32.89	1.93*	5.55	34.69	35.60	0.91	2.62
65%–80%	4,060	6,270	29.13	27.35	30.81	-1.79*	-6.13	29.13	28.53	-0.60	-2.07
81%–92%	3,750	5,920	20.49	18.67	22.20	-1.82*	-8.90	20.49	19.50	-0.99	-4.83
93% or more	2,910	2,940	15.42	17.20	13.76	1.78*	11.52	15.42	16.14	0.71	4.63
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = 0.17)				(Effect size = 0.04)	
23.64% or less	4,770	6,410	31.49	27.10	35.60	-4.39*	-13.94	31.49	31.18	-0.32	-1.01
23.65%–41.64%	3,470	5,020	21.61	20.52	22.63	-1.09	-5.04	21.61	21.56	-0.04	-0.19
41.65%–60.34%	2,730	2,760	19.41	22.05	16.94	2.64*	13.59	19.41	19.86	0.44	2.28
60.35% or more	3,650	3,500	23.27	28.14	18.71	4.87*	20.93	23.27	23.89	0.62	2.67
Unknown	730	1,980	4.22	2.19	6.12	-2.03*	-48.06	4.22	3.52	-0.71	-16.71

See notes at end of table.

Table H-12. Student-level nonresponse bias analysis for selected variables for students in all institutions using weight WTD000: 2012–17 —Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.18)				(Effect size = 0.14)	
No	13,940	14,600	88.47	94.21	83.10	5.74*	6.49	88.47	92.86	4.39*	4.96
Yes	1,400	5,060	11.53	5.79	16.90	-5.74*	-49.76	11.53	7.14	-4.39*	-38.06
Total number of institutions attended						(Effect size = 0.20)				(Effect size = #)	
1	4,780	8,740	39.15	29.69	48.00	-9.46*	-24.16	39.15	39.14	-0.01	-0.03
2	5,130	6,640	32.84	35.57	30.29	2.73*	8.31	32.84	32.83	-0.02	-0.05
3	2,970	2,670	16.79	20.18	13.63	3.39*	20.17	16.79	16.81	0.02	0.11
4	1,420	970	7.06	9.10	5.14	2.05*	28.99	7.06	7.07	0.01	0.19
5 or more	1,050	640	4.16	5.46	2.94	1.30*	31.19	4.16	4.15	#	-0.12

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-13. Student-level nonresponse bias analysis for selected variables for students in public less-than-2-year institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mid East	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	70	110	99.69	100.00	99.59	0.31	0.31	99.69	100.00	0.31	0.31
2,629–10,233	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = ‡)				(Effect size = ‡)	
15–23	50	70	63.76	71.05	61.42	7.29	11.43	63.76	67.23	3.47	5.44
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status						(Effect size = #)				(Effect size = 0.06)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	40	60	55.85	55.76	55.87	-0.08	-0.15	55.85	59.06	3.22	5.76
Total Pell Grant amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$1–$3,500	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$13,089 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Stafford Loan status						(Effect size = 0.12)				(Effect size = 0.05)	
Received	40	80	58.33	52.35	60.26	-5.98	-10.25	58.33	55.86	-2.47	-4.23
Did not receive	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-13. Student-level nonresponse bias analysis for selected variables for students in public less-than-2-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	30	70	53.53	40.65	57.68	-12.88	-24.05	53.53	45.31	-8.22	-15.36
$1–$6,365	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,366–$12,755	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$12,756–$26,000	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$26,001 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	70	110	98.62	96.96	99.15	-1.65	-1.67	98.62	97.45	-1.17	-1.18
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.26)				(Effect size = 0.16)	
Did not receive	30	70	53.53	40.65	57.68	-12.88	-24.05	53.53	45.31	-8.22	-15.36
Received	40	40	46.47	59.35	42.32	12.88	27.71	46.47	54.69	8.22	17.69
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	60	110	95.95	90.07	97.85	-5.88	-6.13	95.95	91.44	-4.51	-4.70
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	60	110	91.44	87.59	92.68	-3.85	-4.21	91.44	88.03	-3.41	-3.73
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-13. Student-level nonresponse bias analysis for selected variables for students in public less-than-2-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.25)				(Effect size = 0.32)	
Yes	60	80	73.77	84.93	70.18	11.16	15.12	73.77	87.94	14.16	19.20
No	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
81%–92%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
93% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	70	110	100.00	100.00	100.00	#	#	100.00	100.00	#	#

See notes at end of table.

Table H-13. Student-level nonresponse bias analysis for selected variables for students in public less-than-2-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = ‡)				(Effect size = ‡)	
No	60	90	86.12	90.76	84.63	4.64	5.39	86.12	89.75	3.63	4.22
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	30	70	51.11	35.57	56.11	-15.54	-30.41	51.11	49.63	-1.48	-2.90
2	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
3	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-14. Student-level nonresponse bias analysis for selected variables for students in public 2-year institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = 0.07)				(Effect size = 0.07)	
New England	170	200	4.10	4.20	4.03	0.10	2.48	4.10	4.41	0.31	7.54
Mid East	610	670	13.15	13.06	13.21	-0.09	-0.65	13.15	13.27	0.12	0.91
Great Lakes	980	1,060	14.74	16.26	13.65	1.52	10.32	14.74	15.25	0.50	3.41
Plains	290	350	7.91	7.53	8.17	-0.37	-4.72	7.91	7.57	-0.33	-4.23
Southeast	1,170	1,360	19.94	19.94	19.94	#	#	19.94	20.72	0.78	3.91
Southwest	660	700	16.40	17.05	15.94	0.65	3.95	16.40	17.44	1.04	6.32
Rocky Mountains	220	190	2.76	3.14	2.48	0.38	13.94	2.76	2.80	0.05	1.69
Far West	860	1,160	21.01	18.81	22.58	-2.20	-10.46	21.01	18.55	-2.46	-11.71
Institution total enrollment						(Effect size = 0.03)				(Effect size = 0.05)	
0–2,628	110	180	2.66	2.58	2.72	-0.08	-3.04	2.66	2.88	0.22	8.15
2,629–10,233	1,450	1,540	25.69	26.26	25.29	0.57	2.20	25.69	27.21	1.52	5.91
10,234–26,884	2,030	2,630	43.55	42.02	44.65	-1.54	-3.52	43.55	41.48	-2.07	-4.76
26,885 or more	1,360	1,350	28.10	29.15	27.35	1.05	3.74	28.10	28.44	0.34	1.20
Age as of December 31, 2011						(Effect size = 0.11)				(Effect size = 0.06)	
15–23	4,120	4,430	82.24	86.26	79.35	4.02*	4.89	82.24	84.42	2.19*	2.66
24–29	380	520	8.21	6.55	9.40	-1.66*	-20.22	8.21	7.19	-1.02	-12.43
30 or more	460	740	9.55	7.19	11.24	-2.36*	-24.76	9.55	8.38	-1.17	-12.23
Pell Grant status						(Effect size = 0.02)				(Effect size = 0.07)	
Received	2,080	2,560	45.17	44.01	46.01	-1.16	-2.57	45.17	41.73	-3.44*	-7.62
Did not receive	2,880	3,130	54.83	55.99	53.99	1.16	2.12	54.83	58.27	3.44*	6.28
Total Pell Grant amount received						(Effect size = 0.24)				(Effect size = 0.18)	
$0 or unknown	1,540	2,190	36.02	32.31	38.67	-3.71*	-10.29	36.02	31.41	-4.61*	-12.80
$1–$3,500	790	1,220	18.41	14.29	21.37	-4.13*	-22.41	18.41	15.73	-2.69*	-14.59
$3,501–$6,352	630	890	14.22	12.30	15.59	-1.91*	-13.46	14.22	13.23	-0.99	-6.94
$6,353–$13,088	910	840	16.12	18.43	14.47	2.31*	14.33	16.12	19.28	3.16*	19.57
$13,089 or more	1,080	560	15.23	22.67	9.91	7.44*	48.84	15.23	20.36	5.13*	33.66
Stafford Loan status						(Effect size = 0.01)				(Effect size = 0.01)	
Received	3,710	4,360	75.70	75.14	76.10	-0.56	-0.74	75.70	75.15	-0.55	-0.73
Did not receive	1,240	1,330	24.30	24.86	23.90	0.56	2.30	24.30	24.85	0.55	2.27

See notes at end of table.

Table H-14. Student-level nonresponse bias analysis for selected variables for students in public 2-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.20)				(Effect size = 0.09)	
$0 or unknown	2,620	3,690	58.08	51.81	62.56	-6.27*	-10.79	58.08	55.32	-2.75*	-4.74
$1–$6,365	670	870	14.34	12.42	15.72	-1.92*	-13.39	14.34	13.06	-1.28	-8.93
$6,366–$12,755	590	520	10.62	11.87	9.73	1.25*	11.74	10.62	11.74	1.12	10.54
$12,756–$26,000	710	420	11.25	15.56	8.15	4.32*	38.39	11.25	13.37	2.13*	18.92
$26,001 or more	370	190	5.71	8.34	3.84	2.62*	45.89	5.71	6.50	0.78*	13.73
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	4,720	5,570	96.53	94.64	97.88	-1.89*	-1.95	96.53	95.56	-0.97*	-1.00
$1–$6,900	70	50	0.99	1.39	0.70	0.40*	40.57	0.99	1.14	0.15	14.69
$6,901–$14,995	70	30	1.11	1.65	0.73	0.54*	48.41	1.11	1.55	0.44*	39.55
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.13)				(Effect size = 0.06)	
Did not receive	2,620	3,680	58.00	51.66	62.53	-6.34*	-10.93	58.00	55.22	-2.78*	-4.79
Received	2,330	2,010	42.00	48.34	37.47	6.34*	15.09	42.00	44.78	2.78*	6.61
Institutional aid status						(Effect size = 0.06)				(Effect size = 0.05)	
Did not receive	3,840	4,350	78.08	78.30	77.92	0.22	0.28	78.08	78.83	0.75	0.96
Received	660	680	13.62	14.72	12.82	1.11	8.14	13.62	14.30	0.68	5.00
Unknown	450	660	8.31	6.98	9.26	-1.33	-16.01	8.31	6.87	-1.43	-17.27
State aid status						(Effect size = 0.05)				(Effect size = 0.05)	
Did not receive	3,530	4,110	74.23	74.55	74.00	0.32	0.43	74.23	74.78	0.55	0.75
Received	980	920	17.46	18.48	16.74	1.01	5.81	17.46	18.34	0.88	5.04
Unknown	450	660	8.31	6.98	9.26	-1.33	-16.01	8.31	6.87	-1.43	-17.27

See notes at end of table.

Table H-14. Student-level nonresponse bias analysis for selected variables for students in public 2-year institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.11)				(Effect size = 0.12)	
Yes	3,960	4,130	75.19	80.04	71.72	4.85*	6.45	75.19	80.28	5.09*	6.77
No	990	1,570	24.81	19.96	28.28	-4.85*	-19.54	24.81	19.72	-5.09*	-20.53
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	1,490	1,450	35.01	37.70	33.09	2.68*	7.66	35.01	37.32	2.30*	6.58
Social/behavioral sciences	60	70	1.56	1.35	1.70	-0.21	-13.22	1.56	1.18	-0.37	-23.96
Life sciences	140	120	2.91	2.92	2.90	0.01	0.48	2.91	2.62	-0.29	-9.81
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	130	160	2.14	2.13	2.14	#	-0.12	2.14	2.16	0.02	1.16
Engineering	190	210	3.28	3.51	3.11	0.23	7.06	3.28	3.67	0.40	12.10
Education	110	120	2.10	2.25	2.00	0.15	7.13	2.10	2.03	-0.08	-3.62
Business/management	420	490	8.53	8.84	8.30	0.31	3.68	8.53	8.83	0.30	3.57
Health	580	610	9.08	9.02	9.12	-0.06	-0.70	9.08	9.73	0.65	7.17
Vocational/technical	320	670	5.30	3.53	6.57	-1.77*	-33.45	5.30	3.87	-1.43*	-27.02
Other technical/professional	520	660	10.03	9.02	10.75	-1.01*	-10.03	10.03	9.67	-0.37	-3.64
Unknown	960	1,080	19.42	18.94	19.77	-0.48	-2.47	19.42	18.21	-1.21	-6.25
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	2,240	2,260	46.27	48.81	44.45	2.54*	5.49	46.27	47.72	1.45	3.14
65%–80%	1,720	2,140	33.85	33.10	34.40	-0.76	-2.23	33.85	33.16	-0.69	-2.04
81%–92%	580	880	13.83	11.70	15.36	-2.13*	-15.43	13.83	12.03	-1.81*	-13.05
93% or more	420	410	5.70	6.23	5.31	0.54	9.40	5.70	6.93	1.23*	21.60
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	3,530	4,140	71.31	72.20	70.67	0.89	1.25	71.31	72.11	0.80	1.12
23.65%–41.64%	1,240	1,280	24.68	24.34	24.92	-0.34	-1.37	24.68	24.17	-0.51	-2.06
41.65%–60.34%	150	180	3.00	2.70	3.22	-0.30	-10.04	3.00	2.87	-0.13	-4.42
60.35% or more	40	80	0.67	0.60	0.72	-0.07	-10.49	0.67	0.70	0.03	4.45
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-14. Student-level nonresponse bias analysis for selected variables for students in public 2-year institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.17)				(Effect size = 0.15)	
No	4,680	4,950	90.16	95.18	86.56	5.03*	5.57	90.16	94.60	4.45*	4.93
Yes	270	740	9.84	4.82	13.44	-5.03*	-51.06	9.84	5.40	-4.45*	-45.17
Total number of institutions attended						(Effect size = 0.26)				(Effect size = 0.05)	
1	1,840	3,230	45.02	32.59	53.93	-12.43*	-27.61	45.02	42.88	-2.15*	-4.77
2	1,740	1,580	32.37	38.10	28.27	5.73*	17.69	32.37	33.93	1.56	4.82
3	790	560	13.67	17.90	10.64	4.23*	30.98	13.67	14.48	0.81	5.93
4	310	210	5.53	6.46	4.86	0.94	16.92	5.53	5.03	-0.50	-8.96
5 or more	270	110	3.41	4.95	2.31	1.54*	45.03	3.41	3.68	0.27	7.92

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington; Outlying area=Puerto Rico.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-15. Student-level nonresponse bias analysis for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mid East	210	130	16.83	17.58	16.07	0.75	4.44	16.83	17.30	0.47	2.79
Great Lakes	140	90	15.13	15.26	15.00	0.13	0.83	15.13	13.85	-1.28	-8.46
Plains	40	30	3.10	3.48	2.71	0.38	12.34	3.10	3.38	0.28	9.15
Southeast	380	320	34.64	33.02	36.28	-1.61	-4.66	34.64	34.19	-0.45	-1.30
Southwest	60	60	3.99	3.10	4.91	-0.89	-22.40	3.99	3.21	-0.79	-19.67
Rocky Mountains	60	50	6.80	6.84	6.76	0.04	0.60	6.80	6.05	-0.75	-11.01
Far West	130	90	15.22	15.90	14.52	0.69	4.50	15.22	17.38	2.17	14.23
Institution total enrollment						(Effect size = 0.05)				(Effect size = 0.09)	
0–2,628	40	30	3.66	3.96	3.37	0.29	7.95	3.66	3.56	-0.11	-2.91
2,629–10,233	440	320	38.50	38.06	38.94	-0.43	-1.12	38.50	36.59	-1.91	-4.96
10,234–26,884	350	290	36.81	35.29	38.37	-1.52	-4.14	36.81	35.36	-1.45	-3.95
26,885 or more	230	160	21.03	22.69	19.33	1.66	7.91	21.03	24.50	3.47	16.50
Age as of December 31, 2011						(Effect size = 0.09)				(Effect size = 0.06)	
15–23	1,020	720	92.85	95.01	90.64	2.16*	2.32	92.85	94.32	1.47	1.58
24–29	30	40	3.60	2.29	4.93	-1.31*	-36.34	3.60	2.52	-1.07*	-29.79
30 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status						(Effect size = 0.02)				(Effect size = #)	
Received	560	410	52.79	53.73	51.82	0.95	1.79	52.79	52.75	-0.03	-0.06
Did not receive	510	390	47.21	46.27	48.18	-0.95	-2.00	47.21	47.25	0.03	0.07
Total Pell Grant amount received						(Effect size = 0.10)				(Effect size = 0.09)	
$0 or unknown	460	350	44.19	43.05	45.36	-1.14	-2.58	44.19	42.87	-1.32	-2.99
$1–$3,500	110	100	11.85	10.87	12.85	-0.98	-8.25	11.85	11.63	-0.21	-1.80
$3,501–$6,352	90	100	9.39	8.05	10.76	-1.34	-14.25	9.39	7.99	-1.40	-14.93
$6,353–$13,088	160	120	14.12	13.76	14.49	-0.36	-2.58	14.12	13.90	-0.22	-1.59
$13,089 or more	250	140	20.45	24.27	16.54	3.82*	18.69	20.45	23.61	3.16*	15.45
Stafford Loan status						(Effect size = 0.08)				(Effect size = 0.05)	
Received	510	450	52.15	48.09	56.30	-4.06*	-7.79	52.15	49.56	-2.59	-4.97
Did not receive	560	350	47.85	51.91	43.70	4.06*	8.48	47.85	50.44	2.59	5.42

See notes at end of table.

Table H-15. Student-level nonresponse bias analysis for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.15)				(Effect size = 0.10)	
$0 or unknown	400	370	41.61	35.95	47.40	-5.66*	-13.61	41.61	38.14	-3.47*	-8.34
$1–$6,365	130	120	13.23	12.10	14.39	-1.13	-8.56	13.23	12.04	-1.19	-8.99
$6,366–$12,755	120	90	11.53	11.83	11.23	0.29	2.55	11.53	11.91	0.38	3.30
$12,756–$26,000	200	110	16.96	19.88	13.97	2.92*	17.23	16.96	18.87	1.90*	11.23
$26,001 or more	220	100	16.66	20.24	13.00	3.58*	21.47	16.66	19.03	2.37*	14.24
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	960	740	90.88	88.82	92.99	-2.06*	-2.27	90.88	89.56	-1.32	-1.45
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.11)				(Effect size = 0.07)	
Did not receive	400	370	41.61	35.95	47.40	-5.66*	-13.61	41.61	38.14	-3.47*	-8.34
Received	670	430	58.39	64.05	52.60	5.66*	9.70	58.39	61.86	3.47*	5.94
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	790	640	77.57	73.07	82.16	-4.49*	-5.79	77.57	74.30	-3.27*	-4.21
Received	260	140	20.27	24.99	15.45	4.72*	23.28	20.27	23.75	3.48*	17.19
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	710	590	69.78	65.06	74.60	-4.72*	-6.76	69.78	65.61	-4.16*	-5.96
Received	340	190	28.06	33.00	23.01	4.94*	17.61	28.06	32.44	4.38*	15.61
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-15. Student-level nonresponse bias analysis for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.07)				(Effect size = 0.07)	
Yes	910	620	78.95	81.83	76.00	2.89*	3.66	78.95	81.69	2.74	3.48
No	160	180	21.05	18.17	24.00	-2.89*	-13.71	21.05	18.31	-2.74	-13.04
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	310	250	32.22	29.94	34.56	-2.29*	-7.10	32.22	30.62	-1.60	-4.96
Social/behavioral sciences	80	60	6.12	6.40	5.83	0.28	4.58	6.12	5.83	-0.29	-4.69
Life sciences	90	50	6.56	7.17	5.93	0.61	9.35	6.56	6.57	0.01	0.12
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	50	40	4.89	4.93	4.85	0.04	0.86	4.89	4.53	-0.36	-7.37
Business/management	90	60	7.40	7.70	7.10	0.30	4.04	7.40	7.61	0.21	2.84
Health	100	60	7.68	9.16	6.17	1.48	19.29	7.68	9.62	1.94*	25.24
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	80	70	8.26	8.30	8.23	0.04	0.47	8.26	8.36	0.10	1.19
Unknown	180	160	16.63	16.04	17.23	-0.59	-3.53	16.63	15.95	-0.67	-4.06
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	350	210	30.94	32.80	29.05	1.85	5.99	30.94	31.75	0.81	2.61
65%–80%	430	310	38.96	39.06	38.85	0.10	0.26	38.96	39.75	0.80	2.05
81%–92%	220	200	23.66	22.55	24.80	-1.11	-4.71	23.66	23.40	-0.26	-1.11
93% or more	80	80	6.13	5.59	6.68	-0.54	-8.76	6.13	5.10	-1.03	-16.88
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	120	110	17.66	15.74	19.63	-1.93	-10.91	17.66	16.53	-1.13	-6.41
23.65%–41.64%	500	430	43.99	42.52	45.49	-1.47	-3.35	43.99	43.86	-0.13	-0.29
41.65%–60.34%	300	200	28.52	30.21	26.78	1.69	5.94	28.52	28.88	0.37	1.29
60.35% or more	160	60	9.00	11.54	6.42	2.53*	28.11	9.00	10.73	1.72	19.11
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-15. Student-level nonresponse bias analysis for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.14)				(Effect size = 0.12)	
No	1,000	690	89.41	93.79	84.93	4.38*	4.90	89.41	93.24	3.84*	4.29
Yes	70	120	10.59	6.21	15.07	-4.38*	-41.39	10.59	6.76	-3.84*	-36.21
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	360	400	40.60	34.41	46.94	-6.20*	-15.26	40.60	43.78	3.18*	7.83
2	390	220	33.03	36.74	29.23	3.71*	11.24	33.03	33.29	0.26	0.79
3	180	120	16.63	16.76	16.51	0.12	0.75	16.63	14.09	-2.55*	-15.32
4	90	40	6.61	7.81	5.38	1.20	18.22	6.61	5.65	-0.95	-14.44
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington; Outlying area=Puerto Rico.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-16. Student-level nonresponse bias analysis for selected variables for students in public 4-year, doctorate-granting institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = 0.05)				(Effect size = 0.07)	
New England	90	50	3.97	4.09	3.78	0.13	3.20	3.97	3.98	0.02	0.45
Mid East	240	190	9.62	9.53	9.75	-0.09	-0.94	9.62	9.67	0.05	0.55
Great Lakes	380	220	17.37	17.45	17.25	0.08	0.45	17.37	16.86	-0.51	-2.91
Plains	160	120	7.98	7.12	9.24	-0.86	-10.77	7.98	6.98	-1.01	-12.61
Southeast	670	390	29.73	29.00	30.79	-0.73	-2.45	29.73	29.99	0.26	0.87
Southwest	350	190	13.52	13.57	13.43	0.06	0.44	13.52	13.11	-0.41	-3.02
Rocky Mountains	90	60	4.09	4.12	4.05	0.03	0.68	4.09	3.82	-0.27	-6.57
Far West	280	120	13.73	15.12	11.71	1.39	10.10	13.73	15.59	1.86*	13.53
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
2,629–10,233	170	80	6.57	6.89	6.09	0.32	4.94	6.57	7.46	0.89	13.63
10,234–26,884	880	580	38.00	37.11	39.31	-0.89	-2.35	38.00	37.37	-0.63	-1.67
26,885 or more	1,220	660	55.43	56.00	54.60	0.57	1.03	55.43	55.17	-0.26	-0.47
Age as of December 31, 2011						(Effect size = ‡)				(Effect size = ‡)	
15–23	2,260	1,290	98.76	99.52	97.65	0.76*	0.77	98.76	99.46	0.70*	0.71
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status						(Effect size = 0.04)				(Effect size = 0.06)	
Received	1,440	870	65.76	63.71	68.77	-2.06*	-3.13	65.76	62.79	-2.98*	-4.52
Did not receive	840	440	34.24	36.29	31.23	2.06*	6.01	34.24	37.21	2.98*	8.69
Total Pell Grant amount received						(Effect size = 0.09)				(Effect size = 0.10)	
$0 or unknown	1,240	760	56.77	54.80	59.65	-1.97*	-3.47	56.77	53.93	-2.84*	-5.01
$1–$3,500	150	110	7.28	6.90	7.83	-0.38	-5.16	7.28	6.78	-0.49	-6.76
$3,501–$6,352	150	90	6.40	6.19	6.70	-0.21	-3.26	6.40	6.41	0.02	0.29
$6,353–$13,088	210	150	10.11	9.33	11.26	-0.78	-7.75	10.11	9.63	-0.48	-4.74
$13,089 or more	530	220	19.44	22.78	14.56	3.34*	17.16	19.44	23.24	3.80*	19.53
Stafford Loan status						(Effect size = 0.03)				(Effect size = 0.03)	
Received	930	560	42.94	41.42	45.17	-1.52	-3.54	42.94	41.27	-1.67	-3.90
Did not receive	1,340	750	57.06	58.58	54.83	1.52	2.66	57.06	58.73	1.67	2.93

See notes at end of table.

Table H-16. Student-level nonresponse bias analysis for selected variables for students in public 4-year, doctorate-granting institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.12)				(Effect size = 0.12)	
$0 or unknown	720	490	35.66	31.96	41.07	-3.70*	-10.38	35.66	31.94	-3.71*	-10.42
$1–$6,365	170	150	9.01	7.63	11.01	-1.37*	-15.23	9.01	7.52	-1.48*	-16.47
$6,366–$12,755	200	150	9.28	8.32	10.68	-0.96*	-10.33	9.28	8.38	-0.89*	-9.64
$12,756–$26,000	490	230	19.94	21.75	17.31	1.80*	9.04	19.94	21.95	2.00*	10.05
$26,001 or more	690	290	26.11	30.34	19.92	4.23*	16.19	26.11	30.20	4.09*	15.66
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = 0.03)				(Effect size = 0.03)	
$0 or unknown	1,850	1,080	82.42	81.51	83.76	-0.91	-1.11	82.42	81.76	-0.66	-0.80
$1–$6,900	70	40	3.19	3.13	3.28	-0.06	-1.92	3.19	3.09	-0.10	-3.21
$6,901–$14,995	110	60	4.61	4.74	4.42	0.13	2.81	4.61	4.70	0.09	2.03
$14,996–$34,345	110	60	4.77	4.96	4.51	0.18	3.83	4.77	4.94	0.17	3.57
$34,346 or more	130	70	5.01	5.67	4.04	0.66	13.24	5.01	5.51	0.50	10.00
Federal aid status						(Effect size = 0.08)				(Effect size = 0.08)	
Did not receive	720	490	35.59	31.85	41.07	-3.75*	-10.52	35.59	31.82	-3.77*	-10.60
Received	1,560	820	64.41	68.15	58.93	3.75*	5.82	64.41	68.18	3.77*	5.86
Institutional aid status						(Effect size = 0.08)				(Effect size = 0.08)	
Did not receive	1,290	830	59.73	56.85	63.95	-2.89*	-4.83	59.73	57.07	-2.66*	-4.45
Received	880	400	36.33	39.95	31.03	3.62*	9.97	36.33	39.72	3.39*	9.34
Unknown	110	80	3.94	3.20	5.02	-0.74	-18.69	3.94	3.21	-0.73	-18.58
State aid status						(Effect size = 0.06)				(Effect size = 0.07)	
Did not receive	1,350	810	62.97	61.45	65.20	-1.53*	-2.42	62.97	60.83	-2.15*	-3.41
Received	820	420	33.09	35.35	29.78	2.26*	6.84	33.09	35.97	2.88*	8.70
Unknown	110	80	3.94	3.20	5.02	-0.74	-18.69	3.94	3.21	-0.73	-18.58

See notes at end of table.

Table H-16. Student-level nonresponse bias analysis for selected variables for students in public 4-year, doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.09)				(Effect size = 0.10)	
Yes	1,910	1,020	80.37	84.08	74.92	3.72*	4.63	80.37	84.32	3.96*	4.92
No	360	290	19.63	15.92	25.08	-3.72*	-18.94	19.63	15.68	-3.96*	-20.15
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	330	170	14.26	15.05	13.11	0.79	5.54	14.26	15.10	0.84	5.86
Social/behavioral sciences	190	110	8.00	7.66	8.50	-0.34	-4.26	8.00	7.96	-0.04	-0.54
Life sciences	350	170	14.49	16.03	12.23	1.54*	10.63	14.49	15.65	1.16	8.01
Physical sciences/math	60	40	2.79	2.60	3.08	-0.19	-6.95	2.79	2.54	-0.25	-8.87
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	200	100	8.34	8.65	7.87	0.32	3.81	8.34	8.90	0.57	6.81
Education	100	50	3.91	4.25	3.40	0.35	8.91	3.91	4.20	0.29	7.53
Business/management	210	160	11.24	9.43	13.89	-1.81*	-16.10	11.24	9.48	-1.76*	-15.67
Health	180	90	7.28	7.58	6.85	0.30	4.06	7.28	7.61	0.32	4.46
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	170	120	7.66	7.09	8.49	-0.57	-7.44	7.66	6.88	-0.77	-10.10
Unknown	440	280	20.12	19.84	20.52	-0.27	-1.36	20.12	19.73	-0.38	-1.90
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	930	500	42.89	43.90	41.41	1.01	2.36	42.89	43.06	0.17	0.40
65%–80%	600	360	28.76	27.60	30.46	-1.16	-4.03	28.76	27.69	-1.07	-3.72
81%–92%	590	380	21.48	21.94	20.79	0.47	2.18	21.48	22.65	1.17	5.45
93% or more	150	80	6.87	6.55	7.34	-0.32	-4.68	6.87	6.60	-0.27	-3.96
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	450	310	18.60	16.58	21.56	-2.02*	-10.87	18.60	17.73	-0.86	-4.65
41.65%–60.34%	820	410	35.96	37.28	34.02	1.32	3.68	35.96	38.05	2.09	5.81
60.35% or more	990	570	44.09	45.47	42.08	1.37	3.12	44.09	43.53	-0.56	-1.28
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-16. Student-level nonresponse bias analysis for selected variables for students in public 4-year, doctorate-granting institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.11)				(Effect size = 0.09)	
No	2,190	1,180	93.83	96.41	90.05	2.58*	2.75	93.83	96.06	2.24*	2.38
Yes	90	130	6.17	3.59	9.95	-2.58*	-41.81	6.17	3.94	-2.24*	-36.21
Total number of institutions attended						(Effect size = 0.13)				(Effect size = 0.04)	
1	560	500	30.75	25.70	38.13	-5.04*	-16.41	30.75	31.51	0.76	2.48
2	800	450	34.73	34.69	34.80	-0.05	-0.13	34.73	33.64	-1.09	-3.14
3	520	220	20.19	22.46	16.87	2.27*	11.24	20.19	20.15	-0.04	-0.18
4	260	70	9.05	11.41	5.61	2.35*	26.01	9.05	9.77	0.72	7.94
5 or more	140	70	5.28	5.75	4.60	0.47	8.84	5.28	4.92	-0.36	-6.75

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington; Outlying area=Puerto Rico.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-17. Student-level nonresponse bias analysis for selected variables for students in private nonprofit less-than-4-year institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mid East	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	50	100	34.26	38.88	32.76	4.62	13.47	34.26	24.02	-10.24	-29.89
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	120	280	98.73	99.14	98.60	0.41	0.41	98.73	98.85	0.12	0.12
2,629–10,233	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = 0.25)				(Effect size = 0.12)	
15–23	90	200	70.55	81.73	66.90	11.18	15.85	70.55	66.24	-4.31	-6.11
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status						(Effect size = 0.12)				(Effect size = 0.07)	
Received	40	80	29.48	34.87	27.72	5.39	18.27	29.48	32.90	3.41	11.58
Did not receive	80	210	70.52	65.13	72.28	-5.39	-7.64	70.52	67.10	-3.41	-4.84
Total Pell Grant amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	30	80	25.80	28.58	24.89	2.79	10.80	25.80	28.55	2.75	10.67
$1–$3,500	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$13,089 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Stafford Loan status						(Effect size = 0.15)				(Effect size = 0.03)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	100	210	70.91	77.89	68.63	6.97	9.84	70.91	72.49	1.58	2.22

See notes at end of table.

Table H-17. Student-level nonresponse bias analysis for selected variables for students in private nonprofit less-than-4-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$1–$6,365	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,366–$12,755	30	90	29.52	21.22	32.23	-8.30	-28.12	29.52	27.31	-2.22	-7.51
$12,756–$26,000	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$26,001 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	80	260	82.76	60.45	90.05	-22.31*	-26.96	82.76	71.13	-11.64	-14.06
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.16)				(Effect size = 0.02)	
Did not receive	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Received	100	210	73.68	80.71	71.38	7.03	9.55	73.68	74.77	1.10	1.49
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	60	190	60.17	41.74	66.18	-18.42*	-30.62	60.17	54.31	-5.86	-9.74
Received	60	80	33.61	52.12	27.56	18.51*	55.09	33.61	34.74	1.13	3.37
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	70	220	74.21	59.92	78.88	-14.29	-19.25	74.21	65.35	-8.86	-11.94
Received	40	60	19.57	33.94	14.87	14.38	73.49	19.57	23.70	4.13	21.11
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-17. Student-level nonresponse bias analysis for selected variables for students in private nonprofit less-than-4-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.15)				(Effect size = 0.11)	
Yes	110	250	85.35	90.80	83.57	5.45	6.38	85.35	89.29	3.94	4.62
No	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Vocational/technical	30	60	18.86	28.51	15.71	9.65	51.13	18.86	46.33	27.47	145.61
Other technical/professional	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	50	100	37.55	46.49	34.63	8.95	23.82	37.55	35.02	-2.52	-6.72
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
81%–92%	70	150	47.60	52.95	45.85	5.35	11.24	47.60	49.08	1.48	3.11
93% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	40	60	22.84	39.03	17.55	16.20	70.91	22.84	30.71	7.87	34.46
23.65%–41.64%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-17. Student-level nonresponse bias analysis for selected variables for students in private nonprofit less-than-4-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.22)				(Effect size = 0.32)	
No	100	200	74.42	84.12	71.26	9.69	13.02	74.42	88.33	13.91	18.69
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
2	50	100	38.55	36.13	39.34	-2.42	-6.27	38.55	25.63	-12.92	-33.52
3	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington; Outlying area=Puerto Rico.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-18. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	140	100	13.69	11.73	16.40	-1.95	-14.27	13.69	12.53	-1.16	-8.46
Mid East	340	200	21.19	21.77	20.38	0.58	2.73	21.19	20.68	-0.51	-2.40
Great Lakes	340	280	20.16	19.58	20.96	-0.57	-2.85	20.16	19.64	-0.52	-2.55
Plains	110	40	10.22	12.16	7.54	1.94	18.93	10.22	11.26	1.03	10.10
Southeast	270	160	21.34	22.24	20.08	0.90	4.23	21.34	23.09	1.75	8.21
Southwest	40	40	4.15	3.20	5.48	-0.95	-22.92	4.15	3.36	-0.79	-19.11
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	130	50	6.37	6.87	5.67	0.50	7.86	6.37	7.09	0.72	11.35
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	700	430	60.37	59.61	61.41	-0.75	-1.25	60.37	61.24	0.87	1.44
2,629–10,233	670	440	36.64	37.32	35.70	0.68	1.85	36.64	35.43	-1.21	-3.31
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = 0.07)				(Effect size = 0.04)	
15–23	1,350	810	97.72	98.74	96.30	1.02*	1.04	97.72	98.36	0.64	0.66
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	40	50	1.81	1.00	2.93	-0.81	-44.58	1.81	1.33	-0.48	-26.60
Pell Grant status						(Effect size = 0.04)				(Effect size = #)	
Received	820	460	60.86	62.62	58.43	1.75	2.88	60.86	60.89	0.03	0.04
Did not receive	590	440	39.14	37.38	41.57	-1.75	-4.48	39.14	39.11	-0.03	-0.06
Total Pell Grant amount received						(Effect size = 0.05)				(Effect size = 0.07)	
$0 or unknown	700	420	53.58	53.82	53.25	0.24	0.44	53.58	52.55	-1.04	-1.94
$1–$3,500	120	110	7.38	7.26	7.56	-0.12	-1.68	7.38	8.51	1.13	15.32
$3,501–$6,352	120	110	8.77	7.52	10.50	-1.25	-14.23	8.77	7.48	-1.29	-14.68
$6,353–$13,088	160	120	10.26	9.93	10.73	-0.33	-3.25	10.26	9.79	-0.47	-4.60
$13,089 or more	310	150	20.00	21.47	17.96	1.47	7.34	20.00	21.67	1.67	8.34
Stafford Loan status						(Effect size = 0.07)				(Effect size = 0.07)	
Received	390	310	30.34	27.16	34.75	-3.18*	-10.48	30.34	27.02	-3.32*	-10.93
Did not receive	1,030	590	69.66	72.84	65.25	3.18*	4.56	69.66	72.98	3.32*	4.76

See notes at end of table.

Table H-18. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.15)				(Effect size = 0.13)	
$0 or unknown	320	270	27.34	23.53	32.62	-3.81*	-13.92	27.34	24.75	-2.58	-9.45
$1–$6,365	130	130	9.78	7.49	12.94	-2.28*	-23.35	9.78	7.81	-1.97	-20.14
$6,366–$12,755	130	140	9.94	9.09	11.12	-0.85	-8.52	9.94	8.64	-1.30	-13.12
$12,756–$26,000	290	160	18.37	19.23	17.17	0.86	4.69	18.37	18.93	0.56	3.07
$26,001 or more	540	200	34.58	40.65	26.15	6.07*	17.57	34.58	39.87	5.29*	15.31
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = 0.07)				(Effect size = 0.04)	
$0 or unknown	1,040	720	75.27	73.42	77.84	-1.85	-2.46	75.27	74.38	-0.89	-1.18
$1–$6,900	50	40	3.64	3.34	4.05	-0.30	-8.15	3.64	3.58	-0.06	-1.76
$6,901–$14,995	90	40	6.27	6.16	6.43	-0.11	-1.81	6.27	5.87	-0.40	-6.41
$14,996–$34,345	100	40	6.03	7.39	4.14	1.36*	22.60	6.03	6.82	0.79	13.14
$34,346 or more	130	60	8.79	9.68	7.54	0.90	10.20	8.79	9.35	0.56	6.39
Federal aid status						(Effect size = 0.09)				(Effect size = 0.06)	
Did not receive	320	270	27.29	23.46	32.62	-3.84*	-14.06	27.29	24.66	-2.63	-9.64
Received	1,090	620	72.71	76.54	67.38	3.84*	5.28	72.71	75.34	2.63	3.62
Institutional aid status						(Effect size = 0.10)				(Effect size = 0.10)	
Did not receive	200	160	17.81	15.19	21.45	-2.62*	-14.73	17.81	15.15	-2.66*	-14.93
Received	990	510	76.69	80.74	71.06	4.05*	5.29	76.69	80.81	4.12*	5.37
Unknown	230	220	5.50	4.07	7.49	-1.43	-25.98	5.50	4.04	-1.46	-26.56
State aid status						(Effect size = 0.06)				(Effect size = 0.07)	
Did not receive	840	470	66.74	68.22	64.69	1.48	2.21	66.74	67.06	0.32	0.48
Received	350	200	27.76	27.71	27.82	-0.05	-0.17	27.76	28.90	1.14	4.10
Unknown	230	220	5.50	4.07	7.49	-1.43	-25.98	5.50	4.04	-1.46	-26.56

See notes at end of table.

Table H-18. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.08)				(Effect size = 0.09)	
Yes	1,270	760	86.01	88.66	82.34	2.65*	3.08	86.01	89.23	3.22*	3.74
No	140	130	13.99	11.34	17.66	-2.65*	-18.91	13.99	10.77	-3.22*	-23.01
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	320	170	17.59	18.11	16.86	0.53	2.99	17.59	19.92	2.33	13.23
Social/behavioral sciences	80	40	5.78	6.23	5.16	0.45	7.73	5.78	6.10	0.32	5.51
Life sciences	130	60	9.57	10.65	8.08	1.07	11.22	9.57	10.22	0.65	6.76
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	80	40	5.52	5.89	5.01	0.37	6.66	5.52	5.60	0.08	1.46
Business/management	90	80	8.06	6.60	10.09	-1.46	-18.13	8.06	7.18	-0.88	-10.93
Health	110	120	5.12	5.20	5.00	0.08	1.59	5.12	4.80	-0.32	-6.16
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	100	90	7.95	6.34	10.20	-1.62*	-20.33	7.95	6.10	-1.86*	-23.35
Unknown	410	240	35.58	36.04	34.95	0.46	1.28	35.58	35.11	-0.48	-1.34
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	120	40	9.10	10.62	6.99	1.52*	16.68	9.10	10.65	1.55	17.01
65%–80%	90	40	7.74	8.10	7.24	0.36	4.66	7.74	9.61	1.87	24.21
81%–92%	320	290	18.51	15.99	22.00	-2.52*	-13.62	18.51	15.52	-2.98*	-16.12
93% or more	880	520	64.66	65.30	63.77	0.64	0.99	64.66	64.22	-0.44	-0.68
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	160	200	4.33	3.00	6.17	-1.33*	-30.67	4.33	3.39	-0.93	-21.59
23.65%–41.64%	180	110	14.24	13.69	15.00	-0.55	-3.83	14.24	14.93	0.69	4.87
41.65%–60.34%	420	290	34.78	31.76	38.98	-3.02	-8.69	34.78	33.81	-0.97	-2.79
60.35% or more	650	290	46.65	51.55	39.85	4.90*	10.50	46.65	47.86	1.21	2.60
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-18. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.10)				(Effect size = 0.08)	
No	1,300	720	89.86	92.81	85.76	2.95*	3.29	89.86	92.21	2.35*	2.62
Yes	110	170	10.14	7.19	14.24	-2.95*	-29.13	10.14	7.79	-2.35*	-23.18
Total number of institutions attended						(Effect size = 0.17)				(Effect size = 0.08)	
1	410	390	33.00	26.33	42.27	-6.67*	-20.22	33.00	36.61	3.61	10.95
2	480	300	34.30	34.66	33.81	0.35	1.03	34.30	31.64	-2.67*	-7.78
3	290	130	18.62	21.34	14.84	2.72*	14.62	18.62	18.20	-0.42	-2.28
4	150	50	8.93	11.65	5.15	2.72*	30.46	8.93	8.88	-0.05	-0.51
5 or more	80	30	5.14	6.02	3.93	0.88*	17.05	5.14	4.67	-0.47	-9.22

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington; Outlying area=Puerto Rico.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-19. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	200	100	14.09	13.61	14.87	-0.48	-3.38	14.09	13.76	-0.33	-2.35
Mid East	640	390	33.26	31.02	36.92	-2.23	-6.72	33.26	29.96	-3.29	-9.90
Great Lakes	350	190	12.84	12.74	13.00	-0.10	-0.77	12.84	12.65	-0.19	-1.50
Plains	160	110	5.66	7.11	3.29	1.45	25.59	5.66	7.27	1.61	28.44
Southeast	220	90	16.78	17.28	15.95	0.50	3.01	16.78	18.44	1.67	9.93
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	100	70	9.83	9.48	10.39	-0.34	-3.48	9.83	9.72	-0.10	-1.06
Institution total enrollment						(Effect size = 0.05)				(Effect size = 0.07)	
0–2,628	80	40	6.38	7.29	4.89	0.91	14.28	6.38	7.53	1.15	18.02
2,629–10,233	910	560	44.16	44.46	43.68	0.30	0.67	44.16	44.38	0.22	0.50
10,234–26,884	520	270	34.37	34.20	34.65	-0.17	-0.50	34.37	34.96	0.59	1.72
26,885 or more	290	130	15.08	14.05	16.78	-1.04	-6.87	15.08	13.12	-1.96	-13.01
Age as of December 31, 2011						(Effect size = ‡)				(Effect size = ‡)	
15–23	1,740	940	98.56	98.50	98.67	-0.06	-0.06	98.56	98.34	-0.23	-0.23
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or more	40	30	1.29	1.32	1.24	0.03	2.25	1.29	1.44	0.15	11.83
Pell Grant status						(Effect size = 0.04)				(Effect size = 0.04)	
Received	1,240	690	71.22	69.47	74.10	-1.76	-2.47	71.22	69.42	-1.80	-2.52
Did not receive	550	310	28.78	30.53	25.90	1.76	6.10	28.78	30.58	1.80	6.25
Total Pell Grant amount received						(Effect size = 0.06)				(Effect size = 0.06)	
$0 or unknown	1,100	610	64.34	62.44	67.44	-1.89	-2.94	64.34	62.71	-1.63	-2.53
$1–$3,500	120	90	6.49	5.79	7.64	-0.70	-10.81	6.49	5.80	-0.69	-10.70
$3,501–$6,352	90	60	5.02	5.40	4.39	0.38	7.57	5.02	5.27	0.25	4.98
$6,353–$13,088	170	80	7.36	8.19	6.02	0.82	11.15	7.36	7.99	0.62	8.46
$13,089 or more	320	160	16.79	18.19	14.50	1.40	8.31	16.79	18.24	1.45	8.64
Stafford Loan status						(Effect size = 0.07)				(Effect size = 0.08)	
Received	670	440	42.34	38.69	48.33	-3.65*	-8.63	42.34	38.24	-4.10*	-9.69
Did not receive	1,120	560	57.66	61.31	51.67	3.65*	6.34	57.66	61.76	4.10*	7.11

See notes at end of table.

Table H-19. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.11)				(Effect size = 0.11)	
$0 or unknown	570	400	38.65	34.60	45.28	-4.05*	-10.47	38.65	34.75	-3.89*	-10.07
$1–$6,365	110	70	5.86	5.85	5.86	#	-0.04	5.86	5.64	-0.21	-3.64
$6,366–$12,755	120	90	6.82	6.02	8.12	-0.80	-11.66	6.82	5.99	-0.83	-12.18
$12,756–$26,000	370	190	19.03	19.74	17.86	0.71	3.75	19.03	19.51	0.48	2.54
$26,001 or more	620	250	29.65	33.78	22.88	4.13*	13.93	29.65	34.10	4.45*	15.02
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	1,400	790	78.87	77.53	81.05	-1.34	-1.69	78.87	77.93	-0.94	-1.19
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	100	50	5.34	5.52	5.03	0.19	3.48	5.34	5.55	0.21	4.00
$34,346 or more	180	100	10.16	10.77	9.16	0.61	6.01	10.16	10.59	0.43	4.22
Federal aid status						(Effect size = 0.08)				(Effect size = 0.07)	
Did not receive	560	390	38.15	34.37	44.35	-3.78*	-9.91	38.15	34.53	-3.63*	-9.50
Received	1,230	600	61.85	65.63	55.65	3.78*	6.11	61.85	65.47	3.63*	5.86
Institutional aid status						(Effect size = 0.08)				(Effect size = 0.08)	
Did not receive	430	270	24.69	23.15	27.20	-1.54	-6.22	24.69	23.80	-0.88	-3.58
Received	1,200	590	65.62	69.07	59.96	3.45*	5.26	65.62	68.49	2.87	4.38
Unknown	160	140	9.70	7.78	12.83	-1.92	-19.75	9.70	7.71	-1.99	-20.51
State aid status						(Effect size = 0.07)				(Effect size = 0.07)	
Did not receive	1,260	640	70.79	71.84	69.08	1.04	1.47	70.79	72.06	1.27	1.79
Received	370	220	19.51	20.38	18.08	0.87	4.47	19.51	20.23	0.72	3.71
Unknown	160	140	9.70	7.78	12.83	-1.92	-19.75	9.70	7.71	-1.99	-20.51

See notes at end of table.

Table H-19. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.13)				(Effect size = 0.13)	
Yes	1,500	760	74.68	80.12	65.77	5.44*	7.28	74.68	80.32	5.64*	7.55
No	290	230	25.32	19.88	34.23	-5.44*	-21.48	25.32	19.68	-5.64*	-22.28
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	290	170	16.56	16.35	16.90	-0.21	-1.25	16.56	16.56	#	0.01
Social/behavioral sciences	150	90	9.35	8.85	10.19	-0.51	-5.44	9.35	8.63	-0.73	-7.78
Life sciences	190	90	10.30	10.89	9.34	0.59	5.71	10.30	10.38	0.08	0.80
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	110	50	6.17	6.17	6.16	#	0.07	6.17	6.27	0.10	1.65
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	200	140	11.86	9.38	15.94	-2.49*	-20.97	11.86	9.87	-2.00*	-16.84
Health	140	70	5.76	5.55	6.09	-0.20	-3.56	5.76	5.20	-0.55	-9.60
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	140	60	7.58	8.65	5.82	1.07	14.16	7.58	9.03	1.45	19.13
Unknown	430	260	25.43	26.35	23.92	0.92	3.62	25.43	26.26	0.83	3.27
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	420	160	22.16	24.59	18.17	2.43*	10.99	22.16	23.72	1.56	7.06
65%–80%	200	160	16.25	14.79	18.65	-1.46	-9.00	16.25	14.52	-1.73	-10.65
81%–92%	360	200	15.81	15.07	17.03	-0.74	-4.70	15.81	15.40	-0.41	-2.60
93% or more	820	470	45.60	45.26	46.15	-0.34	-0.74	45.60	46.10	0.50	1.09
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	130	80	5.79	6.31	4.93	0.52	9.01	5.79	6.75	0.96	16.59
41.65%–60.34%	480	230	26.39	27.18	25.09	0.79	2.99	26.39	27.67	1.29	4.87
60.35% or more	1,160	670	66.14	64.74	68.43	-1.40	-2.11	66.14	63.66	-2.48	-3.75
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-19. Student-level nonresponse bias analysis for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTD000: 2012-17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.03)				(Effect size = 0.04)	
No	1,710	920	95.27	95.91	94.21	0.64	0.68	95.27	96.03	0.76	0.80
Yes	80	70	4.73	4.09	5.79	-0.64	-13.61	4.73	3.97	-0.76	-16.12
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	540	470	37.87	29.94	50.87	-7.93*	-20.95	37.87	37.09	-0.78	-2.06
2	590	270	30.78	34.00	25.52	3.21*	10.44	30.78	32.06	1.28	4.15
3	400	170	20.20	22.46	16.49	2.26*	11.19	20.20	19.46	-0.73	-3.63
4	160	50	7.41	8.73	5.26	1.31*	17.73	7.41	7.54	0.13	1.75
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington; Outlying area=Puerto Rico.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-20. Student-level nonresponse bias analysis for selected variables for students in private for-profit less-than-2-year institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = 0.47)				(Effect size = 0.43)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mid East	60	170	11.18	10.46	11.38	-0.72	-6.41	11.18	18.73	7.56	67.63
Great Lakes	30	220	6.96	4.68	7.61	-2.28	-32.79	6.96	6.64	-0.32	-4.61
Plains	40	70	6.76	10.04	5.83	3.28	48.48	6.76	10.88	4.12	60.90
Southeast	50	210	19.56	11.63	21.81	-7.93	-40.56	19.56	12.15	-7.42	-37.91
Southwest	70	200	28.23	42.50	24.18	14.27	50.54	28.23	31.71	3.49	12.35
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	300	1,100	98.23	99.87	97.76	1.64	1.67	98.23	99.85	1.62	1.65
2,629–10,233	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = 0.14)				(Effect size = 0.11)	
15–23	220	730	64.86	69.60	63.51	4.74	7.31	64.86	67.87	3.01	4.64
24–29	40	190	14.13	15.23	13.82	1.10	7.78	14.13	15.39	1.25	8.87
30 or more	40	220	21.01	15.17	22.67	-5.84*	-27.79	21.01	16.75	-4.26	-20.29
Pell Grant status						(Effect size = 0.23)				(Effect size = 0.25)	
Received	60	140	14.97	23.03	12.69	8.06*	53.80	14.97	23.74	8.77*	58.54
Did not receive	240	990	85.03	76.97	87.31	-8.06*	-9.48	85.03	76.26	-8.77*	-10.31
Total Pell Grant amount received						(Effect size = 0.29)				(Effect size = 0.26)	
$0 or unknown	50	130	12.59	18.31	10.96	5.72*	45.45	12.59	20.08	7.49	59.53
$1–$3,500	40	270	20.39	13.54	22.33	-6.85*	-33.60	20.39	16.33	-4.05	-19.88
$3,501–$6,352	90	510	37.99	34.00	39.12	-3.99	-10.50	37.99	32.94	-5.04	-13.27
$6,353–$13,088	80	190	23.40	24.25	23.15	0.85	3.64	23.40	22.60	-0.79	-3.39
$13,089 or more	40	40	5.64	9.91	4.43	4.27	75.61	5.64	8.04	2.39	42.43
Stafford Loan status						(Effect size = 0.13)				(Effect size = 0.12)	
Received	30	140	14.86	10.19	16.18	-4.67	-31.45	14.86	10.64	-4.22	-28.38
Did not receive	270	990	85.14	89.81	83.82	4.67	5.49	85.14	89.36	4.22	4.95

See notes at end of table.

Table H-20. Student-level nonresponse bias analysis for selected variables for students in private for-profit less-than-2-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	30	180	15.58	8.68	17.54	-6.90*	-44.28	15.58	9.31	-6.27*	-40.25
$1–$6,365	70	300	28.37	26.76	28.83	-1.61	-5.68	28.37	26.80	-1.57	-5.54
$6,366–$12,755	120	510	39.98	41.39	39.58	1.41	3.53	39.98	43.68	3.70	9.26
$12,756–$26,000	60	120	13.30	14.15	13.06	0.85	6.40	13.30	13.57	0.27	2.01
$26,001 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	260	1,020	91.10	87.50	92.12	-3.60*	-3.95	91.10	85.43	-5.66*	-6.22
$1–$6,900	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.19)				(Effect size = 0.17)	
Did not receive	30	180	15.58	8.68	17.54	-6.90*	-44.28	15.58	9.31	-6.27*	-40.25
Received	270	950	84.42	91.32	82.46	6.90*	8.17	84.42	90.69	6.27*	7.43
Institutional aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	250	1,060	75.53	58.91	80.25	-16.62	-22.00	75.53	71.87	-3.66	-4.85
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	50	50	21.85	38.98	17.00	17.12	78.34	21.85	25.53	3.68	16.82
State aid status						(Effect size = ‡)				(Effect size = ‡)	
Did not receive	240	1,070	75.98	57.02	81.36	-18.96*	-24.96	75.98	69.55	-6.43	-8.46
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	50	50	21.85	38.98	17.00	17.12	78.34	21.85	25.53	3.68	16.82

See notes at end of table.

Table H-20. Student-level nonresponse bias analysis for selected variables for students in private for-profit less-than-2-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.10)				(Effect size = 0.15)	
Yes	280	1,080	94.39	92.13	95.03	-2.26	-2.39	94.39	90.91	-3.48	-3.68
No	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	170	650	47.15	59.32	43.70	12.17	25.82	47.15	51.64	4.49	9.52
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	90	290	39.54	34.86	40.87	-4.69	-11.86	39.54	42.05	2.50	6.32
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
65%–80%	170	450	52.43	64.41	49.03	11.98	22.85	52.43	59.93	7.50	14.30
81%–92%	80	540	35.46	19.37	40.02	-16.09	-45.37	35.46	20.65	-14.81	-41.76
93% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	300	1,130	99.88	99.76	99.91	-0.12	-0.12	99.88	99.81	-0.07	-0.07

See notes at end of table.

Table H-20. Student-level nonresponse bias analysis for selected variables for students in private for-profit less-than-2-year institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.32)				(Effect size = 0.28)	
No	230	660	61.47	76.91	57.08	15.45*	25.13	61.47	75.03	13.57*	22.07
Yes	70	470	38.53	23.09	42.92	-15.45*	-40.09	38.53	24.97	-13.57*	-35.20
Total number of institutions attended						(Effect size = ‡)				(Effect size = ‡)	
1	70	570	36.23	15.61	42.08	-20.62*	-56.92	36.23	30.42	-5.80	-16.02
2	80	350	24.26	19.60	25.58	-4.66	-19.20	24.26	21.72	-2.54	-10.46
3	90	140	24.36	36.66	20.88	12.29*	50.45	24.36	29.59	5.23	21.45
4	40	50	10.01	18.42	7.63	8.40*	83.95	10.01	12.00	1.99	19.88
5 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington; Outlying area=Puerto Rico.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-21. Student-level nonresponse bias analysis for selected variables for students in private for-profit 2-year institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = ‡)				(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mid East	180	380	20.76	22.34	20.31	1.57	7.57	20.76	19.50	-1.26	-6.09
Great Lakes	120	190	12.29	15.79	11.27	3.50*	28.53	12.29	22.02	9.73	79.23
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	120	290	20.07	18.72	20.46	-1.35	-6.70	20.07	20.66	0.59	2.95
Southwest	130	310	13.53	12.27	13.90	-1.26	-9.30	13.53	9.31	-4.22	-31.19
Rocky Mountains	40	170	6.09	6.19	6.07	0.09	1.50	6.09	4.20	-1.90	-31.12
Far West	230	750	22.31	21.38	22.59	-0.94	-4.20	22.31	19.43	-2.88	-12.92
Institution total enrollment						(Effect size = ‡)				(Effect size = ‡)	
0–2,628	620	1,550	71.57	74.49	70.72	2.92	4.08	71.57	75.99	4.42	6.18
2,629–10,233	200	600	25.63	22.17	26.63	-3.45	-13.47	25.63	20.87	-4.76	-18.57
10,234–26,884	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2011						(Effect size = 0.08)				(Effect size = 0.07)	
15–23	640	1,540	70.73	72.71	70.15	1.99	2.81	70.73	70.81	0.09	0.12
24–29	100	300	13.24	14.26	12.95	1.02	7.67	13.24	15.02	1.78	13.41
30 or more	100	340	16.03	13.03	16.90	-3.00	-18.73	16.03	14.17	-1.86	-11.61
Pell Grant status						(Effect size = 0.01)				(Effect size = 0.05)	
Received	150	440	22.30	22.00	22.38	-0.30	-1.33	22.30	20.34	-1.96	-8.79
Did not receive	690	1,740	77.70	78.00	77.62	0.30	0.38	77.70	79.66	1.96	2.52
Total Pell Grant amount received						(Effect size = 0.35)				(Effect size = 0.20)	
$0 or unknown	120	380	17.64	15.33	18.31	-2.31	-13.08	17.64	16.41	-1.23	-6.97
$1–$3,500	130	430	20.10	13.78	21.93	-6.31*	-31.41	20.10	15.71	-4.38	-21.81
$3,501–$6,352	270	850	32.03	28.27	33.12	-3.76	-11.73	32.03	33.33	1.30	4.06
$6,353–$13,088	220	440	22.98	27.51	21.66	4.53	19.73	22.98	22.77	-0.21	-0.90
$13,089 or more	100	80	7.26	15.10	4.98	7.84*	108.03	7.26	11.78	4.52	62.22
Stafford Loan status						(Effect size = 0.09)				(Effect size = 0.12)	
Received	70	280	13.72	10.56	14.65	-3.17	-23.08	13.72	9.56	-4.16	-30.33
Did not receive	770	1,890	86.28	89.44	85.35	3.17	3.67	86.28	90.44	4.16	4.83

See notes at end of table.

Table H-21. Student-level nonresponse bias analysis for selected variables for students in private for-profit 2-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.26)				(Effect size = 0.16)	
$0 or unknown	60	320	14.28	8.30	16.02	-5.97*	-41.84	14.28	8.91	-5.37*	-37.63
$1–$6,365	200	520	23.73	23.18	23.89	-0.55	-2.32	23.73	24.28	0.55	2.30
$6,366–$12,755	320	900	32.99	30.13	33.82	-2.86	-8.68	32.99	34.85	1.86	5.64
$12,756–$26,000	190	370	23.17	28.61	21.58	5.45	23.52	23.17	24.48	1.32	5.69
$26,001 or more	60	70	5.84	9.77	4.69	3.94*	67.47	5.84	7.49	1.65	28.26
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = ‡)				(Effect size = ‡)	
$0 or unknown	710	1,860	84.00	84.62	83.82	0.62	0.74	84.00	85.05	1.05	1.25
$1–$6,900	60	130	5.62	6.78	5.29	1.15	20.51	5.62	6.48	0.86	15.29
$6,901–$14,995	40	90	5.25	4.34	5.51	-0.91	-17.29	5.25	5.17	-0.08	-1.51
$14,996–$34,345	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status						(Effect size = 0.17)				(Effect size = 0.15)	
Did not receive	60	320	14.28	8.30	16.02	-5.97*	-41.84	14.28	8.91	-5.37*	-37.63
Received	780	1,860	85.72	91.70	83.98	5.97*	6.97	85.72	91.09	5.37*	6.27
Institutional aid status						(Effect size = 0.20)				(Effect size = 0.19)	
Did not receive	680	1,840	82.78	79.02	83.87	-3.76	-4.55	82.78	84.30	1.52	1.83
Received	60	60	7.35	12.49	5.85	5.14	69.97	7.35	10.47	3.13	42.52
Unknown	110	280	9.87	8.49	10.27	-1.38	-13.97	9.87	5.23	-4.64	-47.03
State aid status						(Effect size = 0.19)				(Effect size = 0.24)	
Did not receive	690	1,850	85.66	83.21	86.37	-2.44	-2.85	85.66	86.34	0.68	0.79
Received	40	50	4.47	8.30	3.36	3.82*	85.48	4.47	8.43	3.96	88.60
Unknown	110	280	9.87	8.49	10.27	-1.38	-13.97	9.87	5.23	-4.64	-47.03

See notes at end of table.

Table H-21. Student-level nonresponse bias analysis for selected variables for students in private for-profit 2-year institutions using weight WTD000: 2012–17—Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.01)				(Effect size = #)	
Yes	820	2,090	96.01	96.23	95.94	0.22	0.23	96.01	96.07	0.06	0.06
No	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	530	1,160	37.67	47.08	34.94	9.40*	24.96	37.67	53.36	15.69*	41.65
Vocational/technical	120	520	30.27	19.09	33.52	-11.18*	-36.95	30.27	14.97	-15.30*	-50.53
Other technical/professional	110	220	11.90	14.92	11.02	3.02	25.35	11.90	14.58	2.68	22.50
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	230	570	21.45	16.63	22.86	-4.82	-22.47	21.45	12.65	-8.80*	-41.04
65%–80%	230	780	33.16	25.91	35.27	-7.25	-21.86	33.16	26.66	-6.50	-19.60
81%–92%	280	640	28.42	35.50	26.35	7.09	24.95	28.42	40.42	12.01	42.25
93% or more	100	190	16.97	21.95	15.52	4.98	29.36	16.97	20.26	3.30	19.43
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = ‡)				(Effect size = ‡)	
23.64% or less	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
23.65%–41.64%	70	110	6.04	7.25	5.69	1.21	20.05	6.04	7.83	1.79	29.65
41.65%–60.34%	240	690	34.40	30.03	35.67	-4.37	-12.71	34.40	23.49	-10.90*	-31.70
60.35% or more	520	1,340	56.88	59.80	56.02	2.93	5.15	56.88	66.00	9.13	16.05
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

Table H-21. Student-level nonresponse bias analysis for selected variables for students in private for-profit 2-year institutions using weight WTD000: 2012–17—Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.25)				(Effect size = 0.24)	
No	640	1,330	64.02	76.16	60.49	12.14*	18.97	64.02	75.46	11.44*	17.88
Yes	200	840	35.98	23.84	39.51	-12.14*	-33.75	35.98	24.54	-11.44*	-31.81
Total number of institutions attended						(Effect size = 0.47)				(Effect size = 0.26)	
1	200	1,040	50.26	28.28	56.65	-21.97*	-43.72	50.26	37.76	-12.50*	-24.87
2	320	710	28.52	35.39	26.52	6.87*	24.08	28.52	38.25	9.73	34.10
3	150	270	11.62	18.87	9.52	7.24*	62.32	11.62	13.39	1.77	15.21
4	100	100	6.10	11.32	4.58	5.23*	85.68	6.10	7.19	1.09	17.95
5 or more	80	70	3.50	6.13	2.73	2.64*	75.34	3.50	3.41	-0.09	-2.46

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington; Outlying area=Puerto Rico.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-22. Student-level nonresponse bias analysis for selected variables for students in private for-profit 4-year institutions using weight WTD000: 2012–17

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Bureau of Economic Analysis code (Office of Business Economics) region[5]						(Effect size = 0.14)				(Effect size = 0.28)	
New England	90	220	2.32	2.24	2.35	-0.08	-3.40	2.32	2.64	0.33	14.12
Mid East	300	620	8.49	7.00	9.17	-1.49	-17.54	8.49	9.50	1.02	11.97
Great Lakes	180	580	6.98	4.90	7.94	-2.08	-29.75	6.98	9.54	2.57	36.79
Plains	200	620	15.27	16.16	14.86	0.89	5.81	15.27	21.09	5.82	38.09
Southeast	480	1,710	21.67	19.27	22.78	-2.40	-11.08	21.67	13.78	-7.88	-36.39
Southwest	620	1,020	25.73	29.69	23.89	3.96	15.39	25.73	26.13	0.40	1.56
Rocky Mountains	140	300	7.03	7.21	6.95	0.18	2.52	7.03	3.77	-3.26	-46.37
Far West	500	1,180	12.53	13.54	12.05	1.02	8.13	12.53	13.54	1.02	8.13
Institution total enrollment						(Effect size = 0.16)				(Effect size = 0.12)	
0–2,628	900	3,100	25.73	21.77	27.57	-3.96	-15.38	25.73	26.65	0.92	3.57
2,629–10,233	880	1,900	18.96	18.60	19.13	-0.37	-1.94	18.96	20.03	1.07	5.63
10,234–26,884	130	460	8.38	5.55	9.69	-2.83	-33.78	8.38	5.15	-3.23	-38.54
26,885 or more	620	800	46.92	54.08	43.61	7.16	15.25	46.92	48.17	1.24	2.65
Age as of December 31, 2011						(Effect size = 0.06)				(Effect size = 0.03)	
15–23	1,710	3,910	50.64	51.77	50.12	1.13	2.24	50.64	50.48	-0.16	-0.32
24–29	350	1,130	20.06	17.67	21.17	-2.39	-11.93	20.06	21.04	0.98	4.89
30 or more	460	1,220	29.30	30.56	28.72	1.26	4.30	29.30	28.48	-0.82	-2.80
Pell Grant status						(Effect size = 0.02)				(Effect size = 0.08)	
Received	610	1,550	24.97	25.72	24.63	0.75	3.01	24.97	21.56	-3.41	-13.67
Did not receive	1,910	4,710	75.03	74.28	75.37	-0.75	-1.00	75.03	78.44	3.41	4.55
Total Pell Grant amount received						(Effect size = 0.31)				(Effect size = 0.31)	
$0 or unknown	420	1,240	20.29	17.98	21.36	-2.32	-11.42	20.29	20.13	-0.16	-0.81
$1–$3,500	360	1,540	26.27	19.49	29.41	-6.78*	-25.81	26.27	19.52	-6.75*	-25.70
$3,501–$6,352	340	1,240	14.15	10.67	15.76	-3.48*	-24.61	14.15	11.13	-3.02*	-21.36
$6,353–$13,088	580	1,260	20.83	22.26	20.17	1.43	6.87	20.83	19.33	-1.50	-7.19
$13,089 or more	830	990	18.46	29.61	13.30	11.15*	60.41	18.46	29.89	11.43*	61.95
Stafford Loan status						(Effect size = 0.01)				(Effect size = 0.17)	
Received	330	1,130	22.05	22.57	21.81	0.52	2.36	22.05	14.95	-7.10*	-32.19
Did not receive	2,190	5,140	77.95	77.43	78.19	-0.52	-0.67	77.95	85.05	7.10*	9.10

See notes at end of table.

Table H-22. Student-level nonresponse bias analysis for selected variables for students in private for-profit 4-year institutions using weight WTD000: 2012–17 —Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Total Stafford Loan amount received						(Effect size = 0.30)				(Effect size = 0.30)	
$0 or unknown	260	1,100	20.67	21.58	20.26	0.91	4.38	20.67	18.60	-2.07	-10.02
$1–$6,365	420	1,540	24.94	17.00	28.62	-7.94*	-31.84	24.94	19.96	-4.98*	-19.96
$6,366–$12,755	390	1,210	15.08	11.94	16.54	-3.14*	-20.85	15.08	12.00	-3.08*	-20.46
$12,756–$26,000	640	1,250	21.83	21.85	21.83	0.02	0.08	21.83	21.04	-0.80	-3.65
$26,001 or more	810	1,180	17.47	27.63	12.76	10.16*	58.17	17.47	28.40	10.93*	62.59
Total Parent Loan for Undergraduate Students (PLUS) amount received						(Effect size = 0.08)				(Effect size = 0.07)	
$0 or unknown	2,020	5,360	90.53	89.17	91.16	-1.36	-1.50	90.53	88.97	-1.55	-1.72
$1–$6,900	110	260	2.94	2.96	2.93	0.02	0.64	2.94	3.09	0.15	5.04
$6,901–$14,995	110	250	2.03	2.11	1.99	0.09	4.29	2.03	2.20	0.17	8.39
$14,996–$34,345	140	220	2.43	2.56	2.36	0.13	5.39	2.43	2.65	0.22	9.22
$34,346 or more	140	190	2.08	3.20	1.56	1.12	53.83	2.08	3.09	1.01	48.61
Federal aid status						(Effect size = 0.02)				(Effect size = 0.05)	
Did not receive	260	1,100	20.65	21.58	20.21	0.93	4.52	20.65	18.60	-2.04	-9.90
Received	2,260	5,170	79.35	78.42	79.79	-0.93	-1.18	79.35	81.40	2.04	2.58
Institutional aid status						(Effect size = 0.15)				(Effect size = 0.14)	
Did not receive	2,230	4,510	87.58	92.25	85.42	4.67*	5.33	87.58	91.75	4.17*	4.76
Received	80	180	3.67	2.87	4.04	-0.80	-21.80	3.67	3.33	-0.34	-9.24
Unknown	220	1,580	8.75	4.88	10.54	-3.87*	-44.21	8.75	4.91	-3.83*	-43.81
State aid status						(Effect size = 0.14)				(Effect size = 0.14)	
Did not receive	2,080	4,190	86.26	90.67	84.22	4.41*	5.11	86.26	89.52	3.26	3.77
Received	230	500	4.99	4.45	5.24	-0.54	-10.89	4.99	5.57	0.58	11.53
Unknown	220	1,580	8.75	4.88	10.54	-3.87*	-44.21	8.75	4.91	-3.83*	-43.81

See notes at end of table.

Table H-22. Student-level nonresponse bias analysis for selected variables for students in private for-profit 4-year institutions using weight WTD000: 2012‑17 —Continued

Variable	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Current Population Survey record available						(Effect size = 0.09)				(Effect size = 0.05)	
Yes	2,420	5,960	93.59	91.41	94.60	-2.18	-2.32	93.59	94.76	1.17	1.25
No	100	300	6.41	8.59	5.40	2.18	33.93	6.41	5.24	-1.17	-18.24
Major						(Effect size = ‡)				(Effect size = ‡)	
Humanities	390	650	10.10	13.55	8.50	3.45	34.16	10.10	11.00	0.90	8.90
Social/behavioral sciences	40	50	1.75	1.68	1.77	-0.06	-3.59	1.75	2.48	0.74*	42.31
Life sciences	80	80	3.06	4.26	2.50	1.20*	39.35	3.06	4.06	1.00*	32.85
Physical sciences/math	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	350	1,150	11.36	10.06	11.97	-1.31	-11.50	11.36	9.72	-1.64	-14.42
Engineering	80	790	3.59	1.37	4.62	-2.22*	-61.82	3.59	0.95	-2.65*	-73.70
Education	40	50	2.98	3.29	2.83	0.32	10.59	2.98	8.28	5.31	178.12
Business/management	500	1,060	28.94	26.85	29.91	-2.09	-7.22	28.94	23.89	-5.05	-17.46
Health	390	1,040	12.97	13.21	12.85	0.24	1.87	12.97	15.43	2.46	19.00
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	630	1,250	22.29	23.55	21.71	1.25	5.62	22.29	22.29	#	#
Unknown	30	120	2.77	2.15	3.06	-0.62	-22.52	2.77	1.86	-0.91	-32.76
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid						(Effect size = ‡)				(Effect size = ‡)	
64% or less	240	580	10.00	11.51	9.30	1.51	15.12	10.00	9.68	-0.32	-3.18
65%–80%	600	1,940	16.56	16.17	16.74	-0.39	-2.33	16.56	16.94	0.38	2.28
81%–92%	1,240	2,630	58.56	60.19	57.80	1.63	2.79	58.56	60.38	1.82	3.11
93% or more	450	1,110	14.88	12.12	16.16	-2.76	-18.54	14.88	13.00	-1.88	-12.63
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion						(Effect size = 0.14)				(Effect size = 0.12)	
23.64% or less	900	1,860	49.51	51.33	48.67	1.81	3.66	49.51	49.92	0.41	0.82
23.65%–41.64%	910	2,690	27.82	25.05	29.11	-2.77	-9.96	27.82	30.42	2.60	9.35
41.65%–60.34%	300	670	6.81	6.69	6.86	-0.12	-1.74	6.81	6.88	0.07	0.99
60.35% or more	100	420	2.72	1.11	3.46	-1.61	-59.05	2.72	1.14	-1.58	-58.15
Unknown	310	630	13.14	15.81	11.90	2.68	20.40	13.14	11.64	-1.50	-11.38

See notes at end of table.

Table H-22. Student-level nonresponse bias analysis for selected variables for students in private for-profit 4-year institutions using weight WTD000: 2012–17 —Continued

	Before nonresponse weight adjustment							After nonresponse weight adjustment			
			Means, base weighted			Respondents vs. full sample		Means		Full sample vs. respondents	
Variable	Unweighted respondents	Unweighted non-respondents	Full sample	Respondent	Non-respondent	Estimated bias[1]	Relative bias[2]	Full sample, base weighted	Respondents, nonresponse adjusted[3]	Estimated bias[4]	Relative bias[2]
Six-year federal loan default status						(Effect size = 0.33)				(Effect size = 0.23)	
No	2,020	3,850	63.48	79.30	56.16	15.82*	24.91	63.48	74.54	11.05*	17.41
Yes	500	2,410	36.52	20.70	43.84	-15.82*	-43.31	36.52	25.46	-11.05*	-30.27
Total number of institutions attended						(Effect size = 0.28)				(Effect size = 0.29)	
1	740	1,960	38.53	35.58	39.89	-2.95	-7.65	38.53	51.18	12.65*	32.84
2	680	2,640	36.23	28.64	39.75	-7.59*	-20.94	36.23	24.97	-11.26*	-31.08
3	510	1,020	13.95	16.58	12.73	2.63	18.87	13.95	11.99	-1.96	-14.02
4	300	370	5.08	8.15	3.66	3.07*	60.38	5.08	6.04	0.96	18.97
5 or more	300	280	6.21	11.05	3.97	4.84*	77.89	6.21	5.81	-0.40	-6.44

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$
[1] Bias in the sample mean is estimated as the difference between the mean of respondent cases and the mean of all sample cases, using the base weight.
[2] Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.
[3] Using the nonresponse adjusted weight.
[4] Bias in the sample mean is estimated as the difference between the weighted respondent mean (using the base weight adjusted for nonresponse) and weighted full-sample mean (using the base weight).
[5] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington; Outlying area=Puerto Rico.
NOTE: Detail may not sum to totals because of rounding. Effect size is calculated as the square root of the sum over categories of the squared differences (respondent vs. full sample) over full-sample means. Effect sizes are not reported if any variable categories do not meet reporting standards. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-23. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in all institutions using weight WTC000: 2012–17

Variable	After nonresponse weight adjustment: Mean: Respondents, nonresponse adjusted[1] (1)	After poststratification adjustment: Means: Full sample, base weighted (2)	After poststratification adjustment: Means: Respondents, adjusted for nonresponse and post-stratification (3)	Difference: Mean (1) − Mean (3)	Difference: Mean (2) − Mean (3)
Control and level of institution					
Public less-than-2-year	0.16	0.19	0.72	-0.56*	-0.53*
Public 2-year	37.00	37.09	38.67	-1.67*	-1.58*
Public 4-year non-doctorate-granting	11.56	11.36	10.02	1.54*	1.34*
Public 4-year doctorate-granting	23.20	23.08	20.68	2.52*	2.40*
Private nonprofit less-than-4-year	0.40	0.36	0.64	-0.24	-0.28
Private nonprofit 4-year non-doctorate-granting	8.85	8.49	6.63	2.22*	1.86*
Private nonprofit 4-year doctorate-granting	8.94	9.02	9.06	-0.12	-0.04
Private for-profit less-than-2-year	2.76	2.99	3.70	-0.94*	-0.71
Private for-profit 2-year	2.73	2.95	3.98	-1.25*	-1.03*
Private for-profit 4-year	4.39	4.47	5.90	-1.51*	-1.43*
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	5.83	5.85	5.90	-0.07	-0.05
Mid East	15.21	15.25	15.11	0.10	0.14
Great Lakes	15.37	15.00	14.60	0.77*	0.40
Plains	7.63	7.48	7.27	0.36	0.21
Southeast	23.64	23.82	23.60	0.04	0.22
Southwest	12.92	12.88	13.66	-0.74*	-0.78
Rocky Mountains	3.90	3.95	3.86	0.04	0.09
Far West	15.50	15.77	16.01	-0.51	-0.24
Institution total enrollment					
0–2,628	13.76	13.85	15.22	-1.46*	-1.37*
2,629–10,233	24.12	24.17	23.11	1.01*	1.06
10,234–26,884	32.96	32.91	32.42	0.54	0.49
26,885 or more	29.16	29.07	29.25	-0.09	-0.18
Age as of December 31, 2011					
15–23	87.88	87.69	87.14	0.74*	0.55
24–29	5.55	5.43	5.83	-0.28	-0.40
30 or more	6.57	6.87	7.03	-0.46	-0.16
Pell Grant status					
Received	52.03	51.93	51.31	0.72	0.62
Did not receive	47.97	48.07	48.69	-0.72	-0.62
Total Pell Grant amount received					
$0 or unknown	43.85	43.80	42.47	1.38*	1.33*
$1–$3,500	13.17	13.52	14.21	-1.04*	-0.69*
$3,501–$6,352	11.75	11.89	12.42	-0.67*	-0.53
$6,353–$13,088	14.15	13.86	14.34	-0.19	-0.48
$13,089 or more	17.08	16.93	16.56	0.52	0.37
Stafford Loan status					
Received	52.31	52.36	54.60	-2.29*	-2.24*
Did not receive	47.69	47.64	45.40	2.29*	2.24*
Total Stafford Loan amount received					
$0 or unknown	42.16	42.31	43.24	-1.08*	-0.93
$1–$6,365	13.07	13.05	13.67	-0.60*	-0.62*
$6,366–$12,755	11.75	11.82	11.85	-0.10	-0.03
$12,756–$26,000	16.24	16.10	15.97	0.27	0.13
$26,001 or more	16.78	16.72	15.27	1.51*	1.45*

See notes at end of table.

Table H-23. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in all institutions using weight WTC000: 2012–17 —Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	88.35	88.39	89.19	-0.84*	-0.80*
$1–$6,900	2.41	2.39	2.53	-0.12	-0.14
$6,901–$14,995	2.88	2.87	2.57	0.31*	0.30*
$14,996–$34,345	2.99	2.98	2.85	0.14	0.13
$34,346 or more	3.37	3.37	2.86	0.51*	0.51*
Federal aid status					
Did not receive	42.04	42.22	43.08	-1.04*	-0.86
Received	57.96	57.78	56.92	1.04*	0.86
Institutional aid status					
Did not receive	64.89	64.31	66.84	-1.95*	-2.53*
Received	29.46	28.75	26.96	2.50*	1.79*
Unknown	5.65	6.94	6.21	-0.56	0.73
State aid status					
Did not receive	71.83	71.14	72.83	-1.00*	-1.69*
Received	22.52	21.92	20.97	1.55*	0.95*
Unknown	5.65	6.94	6.21	-0.56	0.73
Current Population Survey record available					
Yes	79.97	79.73	79.28	0.69*	0.45
No	20.03	20.27	20.72	-0.69*	-0.45
Major					
Humanities	24.24	23.44	23.77	0.47	-0.33
Social/behavioral sciences	4.48	4.53	4.25	0.23	0.28
Life sciences	6.96	7.05	6.58	0.38	0.47
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	2.19	2.23	2.30	-0.11	-0.07
Engineering	4.64	4.59	4.45	0.19	0.14
Education	3.39	3.17	3.00	0.39	0.17
Business/management	9.65	9.83	9.58	0.07	0.25
Health	10.22	10.12	11.45	-1.23*	-1.33*
Vocational/technical	3.17	3.59	3.52	-0.35	0.07
Other technical/professional	10.19	10.39	10.69	-0.50	-0.30
Unknown	19.55	19.71	19.22	0.33	0.49
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	35.05	34.69	35.52	-0.47	-0.83
65%–80%	29.43	29.13	28.76	0.67	0.37
81%–92%	19.82	20.49	20.66	-0.84	-0.17
93% or more	15.50	15.42	14.82	0.68	0.60
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-23. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in all institutions using weight WTC000: 2012–17 —Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	31.44	31.49	33.24	-1.80*	-1.75*
23.65%–41.64%	21.82	21.61	21.55	0.27	0.06
41.65%–60.34%	19.62	19.41	18.09	1.53*	1.32*
60.35% or more	23.10	23.27	21.48	1.62*	1.79*
Unknown	4.02	4.22	5.64	-1.62*	-1.42*
Six-year federal loan default status					
No	88.68	88.47	88.49	0.19	-0.02
Yes	11.32	11.53	11.51	-0.19	0.02
Total number of institutions attended					
1	39.14	39.15	39.54	-0.40	-0.39
2	32.83	32.84	32.80	0.03	0.04
3	16.81	16.79	16.56	0.25	0.23
4	7.07	7.06	6.98	0.09	0.08
5 or more	4.15	4.16	4.11	0.04	0.05

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-24. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public less-than-2-year institutions using weight WTC000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	‡	‡	‡	‡	‡
Mid East	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Institution total enrollment					
0–2,628	100.00	99.69	100.00	#	-0.31
2,629–10,233	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	71.97	63.76	75.09	-3.12	-11.33
24–29	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡
Pell Grant status					
Received	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡
Total Pell Grant amount received					
$0 or unknown	‡	‡	‡	‡	‡
$1–$3,500	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡
$13,089 or more	‡	‡	‡	‡	‡
Stafford Loan status					
Received	68.35	58.33	80.27	-11.92	-21.94
Did not receive	‡	‡	‡	‡	‡
Total Stafford Loan amount received					
$0 or unknown	62.79	53.53	72.80	-10.01	-19.27
$1–$6,365	‡	‡	‡	‡	‡
$6,366–$12,755	‡	‡	‡	‡	‡
$12,756–$26,000	‡	‡	‡	‡	‡
$26,001 or more	‡	‡	‡	‡	‡

See notes at end of table.

Table H-24. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public less-than-2-year institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	98.88	98.62	99.46	-0.58	-0.84
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	62.79	53.53	72.80	-10.01	-19.27
Received	‡	‡	‡	‡	‡
Institutional aid status					
Did not receive	96.28	95.95	95.07	1.21	0.88
Received	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
State aid status					
Did not receive	93.82	91.44	92.17	1.65	-0.73
Received	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Current Population Survey record available					
Yes	72.18	73.77	71.81	0.37	1.96
No	‡	‡	‡	‡	‡
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡
81%–92%	‡	‡	‡	‡	‡
93% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-24. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public less-than-2-year institutions using weight WTC000: 2012‑17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡
Unknown	100.00	100.00	100.00	#	#
Six-year federal loan default status					
No	90.01	86.12	93.54	-3.53	-7.42
Yes	‡	‡	‡	‡	‡
Total number of institutions attended					
1	45.28	51.11	45.82	-0.54	5.29
2	‡	‡	‡	‡	‡
3	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-25. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 2-year institutions using weight WTC000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	4.01	4.10	4.09	-0.08	0.01
Mid East	13.56	13.15	13.31	0.25	-0.16
Great Lakes	15.25	14.74	15.41	-0.16	-0.67
Plains	7.75	7.91	6.81	0.94*	1.10
Southeast	20.27	19.94	20.26	0.01	-0.32
Southwest	16.91	16.40	17.01	-0.10	-0.61
Rocky Mountains	2.86	2.76	2.64	0.22	0.12
Far West	19.38	21.01	20.47	-1.09	0.54
Institution total enrollment					
0–2,628	2.25	2.66	2.03	0.22	0.63*
2,629–10,233	26.56	25.69	25.22	1.34*	0.47
10,234–26,884	43.18	43.55	43.47	-0.29	0.08
26,885 or more	28.01	28.10	29.28	-1.27*	-1.18
Age as of December 31, 2011					
15–23	82.28	82.24	83.43	-1.15*	-1.19*
24–29	8.54	8.21	8.10	0.44	0.11
30 or more	9.19	9.55	8.47	0.72*	1.08*
Pell Grant status					
Received	44.86	45.17	52.39	-7.53*	-7.22*
Did not receive	55.14	54.83	47.61	7.53*	7.22*
Total Pell Grant amount received					
$0 or unknown	35.24	36.02	40.38	-5.14*	-4.36*
$1–$3,500	18.13	18.41	18.60	-0.47	-0.19
$3,501–$6,352	14.28	14.22	13.06	1.22*	1.16*
$6,353–$13,088	16.84	16.12	14.63	2.21*	1.49*
$13,089 or more	15.50	15.23	13.32	2.18*	1.91*
Stafford Loan status					
Received	75.29	75.70	81.19	-5.90*	-5.49*
Did not receive	24.71	24.30	18.81	5.90*	5.49*
Total Stafford Loan amount received					
$0 or unknown	57.26	58.08	61.40	-4.14*	-3.32*
$1–$6,365	14.58	14.34	13.19	1.39*	1.15*
$6,366–$12,755	10.88	10.62	9.49	1.39*	1.13*
$12,756–$26,000	11.61	11.25	10.81	0.80*	0.44
$26,001 or more	5.68	5.71	5.10	0.58*	0.61*

See notes at end of table.

Table H-25. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 2-year institutions using weight WTC000: 2012‑17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	96.15	96.53	96.22	-0.07	0.31*
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	57.18	58.00	61.34	-4.16*	-3.34*
Received	42.82	42.00	38.66	4.16*	3.34*
Institutional aid status					
Did not receive	79.64	78.08	79.99	-0.35	-1.91
Received	13.56	13.62	13.49	0.07	0.13
Unknown	6.80	8.31	6.52	0.28	1.79
State aid status					
Did not receive	75.24	74.23	77.27	-2.03*	-3.04*
Received	17.96	17.46	16.21	1.75*	1.25*
Unknown	6.80	8.31	6.52	0.28	1.79
Current Population Survey record available					
Yes	75.47	75.19	71.08	4.39*	4.11*
No	24.53	24.81	28.92	-4.39*	-4.11*
Major					
Humanities	36.22	35.01	36.48	-0.26	-1.47
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	2.68	2.91	2.87	-0.19	0.04
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	2.28	2.14	2.12	0.16	0.02
Engineering	3.42	3.28	3.19	0.23	0.09
Education	2.05	2.10	2.00	0.05	0.10
Business/management	8.51	8.53	8.40	0.11	0.13
Health	8.99	9.08	8.75	0.24	0.33
Vocational/technical	5.00	5.30	4.83	0.17	0.47
Other technical/professional	10.01	10.03	9.58	0.43	0.45
Unknown	18.97	19.42	19.78	-0.81	-0.36
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	46.46	46.27	49.47	-3.01*	-3.20*
65%–80%	33.85	33.85	32.64	1.21*	1.21
81%–92%	12.87	13.83	11.29	1.58*	2.54*
93% or more	6.62	5.70	6.44	0.18	-0.74*
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-25. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 2-year institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	71.60	71.31	72.06	-0.46	-0.75
23.65%–41.64%	24.81	24.68	24.50	0.31	0.18
41.65%–60.34%	2.82	3.00	2.66	0.16	0.34
60.35% or more	0.57	0.67	0.61	-0.04	0.06
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	90.27	90.16	92.30	-2.03*	-2.14*
Yes	9.73	9.84	7.70	2.03*	2.14*
Total number of institutions attended					
1	44.20	45.02	44.12	0.08	0.90
2	33.09	32.37	33.58	-0.49	-1.21*
3	13.66	13.67	13.69	-0.03	-0.02
4	5.63	5.53	5.27	0.36	0.26
5 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-26. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	‡	‡	‡	‡	‡
Mid East	16.68	16.83	15.43	1.25*	1.40
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	32.83	34.64	35.08	-2.25*	-0.44
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Institution total enrollment					
0–2,628	‡	‡	‡	‡	‡
2,629–10,233	37.14	38.50	35.23	1.91*	3.27*
10,234–26,884	36.54	36.81	36.36	0.18	0.45
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	93.14	92.85	92.93	0.21	-0.08
24–29	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡
Pell Grant status					
Received	53.43	52.79	53.70	-0.27	-0.91
Did not receive	46.57	47.21	46.30	0.27	0.91
Total Pell Grant amount received					
$0 or unknown	44.87	44.19	44.94	-0.07	-0.75
$1–$3,500	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡
$13,089 or more	20.01	20.45	18.73	1.28*	1.72
Stafford Loan status					
Received	51.71	52.15	55.78	-4.07*	-3.63*
Did not receive	48.29	47.85	44.22	4.07*	3.63*
Total Stafford Loan amount received					
$0 or unknown	41.05	41.61	43.56	-2.51*	-1.95
$1–$6,365	‡	‡	‡	‡	‡
$6,366–$12,755	‡	‡	‡	‡	‡
$12,756–$26,000	‡	‡	‡	‡	‡
$26,001 or more	16.32	16.66	15.25	1.07*	1.41

See notes at end of table.

Table H-26. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	91.10	90.88	91.39	-0.29	-0.51
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	41.05	41.61	43.56	-2.51*	-1.95
Received	58.95	58.39	56.44	2.51*	1.95
Institutional aid status					
Did not receive	76.95	77.57	77.67	-0.72	-0.10
Received	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
State aid status					
Did not receive	70.11	69.78	71.33	-1.22*	-1.55
Received	28.00	28.06	26.87	1.13*	1.19
Unknown	‡	‡	‡	‡	‡
Current Population Survey record available					
Yes	79.19	78.95	78.98	0.21	-0.03
No	20.81	21.05	21.02	-0.21	0.03
Major					
Humanities	31.64	32.22	32.29	-0.65	-0.07
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	31.42	30.94	30.19	1.23*	0.75
65%–80%	40.98	38.96	42.63	-1.65*	-3.67*
81%–92%	21.85	23.66	21.52	0.33	2.14
93% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-26. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	43.35	43.99	45.24	-1.89*	-1.25
41.65%–60.34%	29.39	28.52	27.94	1.45*	0.58
60.35% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	89.28	89.41	90.37	-1.09*	-0.96
Yes	‡	‡	‡	‡	‡
Total number of institutions attended					
1	41.03	40.60	40.82	0.21	-0.22
2	33.01	33.03	34.08	-1.07*	-1.05
3	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-27. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, doctorate-granting institutions using weight WTC000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	‡	‡	‡	‡	‡
Mid East	9.52	9.62	9.62	-0.10	#
Great Lakes	16.75	17.37	16.45	0.30	0.92
Plains	7.43	7.98	7.28	0.15	0.70
Southeast	29.75	29.73	30.65	-0.90	-0.92
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Institution total enrollment					
0–2,628	‡	‡	‡	‡	‡
2,629–10,233	‡	‡	‡	‡	‡
10,234–26,884	38.38	38.00	38.18	0.20	-0.18
26,885 or more	54.72	55.43	54.91	-0.19	0.52
Age as of December 31, 2011					
15–23	98.88	98.76	99.14	-0.26	-0.38
24–29	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡
Pell Grant status					
Received	65.49	65.76	63.68	1.81*	2.08*
Did not receive	34.51	34.24	36.32	-1.81*	-2.08*
Total Pell Grant amount received					
$0 or unknown	56.54	56.77	54.93	1.61*	1.84*
$1–$3,500	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡
$6,353–$13,088	10.26	10.11	10.42	-0.16	-0.31
$13,089 or more	19.54	19.44	20.22	-0.68	-0.78
Stafford Loan status					
Received	42.32	42.94	40.57	1.75*	2.37*
Did not receive	57.68	57.06	59.43	-1.75*	-2.37*
Total Stafford Loan amount received					
$0 or unknown	34.85	35.66	32.89	1.96*	2.77*
$1–$6,365	9.07	9.01	10.33	-1.26*	-1.32*
$6,366–$12,755	‡	‡	‡	‡	‡
$12,756–$26,000	20.33	19.94	20.14	0.19	-0.20
$26,001 or more	26.27	26.11	25.80	0.47	0.31

See notes at end of table.

Table H-27. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	82.46	82.42	82.97	-0.51	-0.55
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	34.78	35.59	32.80	1.98*	2.79*
Received	65.22	64.41	67.20	-1.98*	-2.79*
Institutional aid status					
Did not receive	59.60	59.73	59.46	0.14	0.27
Received	37.09	36.33	36.77	0.32	-0.44
Unknown	‡	‡	‡	‡	‡
State aid status					
Did not receive	63.22	62.97	61.13	2.09*	1.84
Received	33.46	33.09	35.10	-1.64	-2.01*
Unknown	‡	‡	‡	‡	‡
Current Population Survey record available					
Yes	80.83	80.37	83.33	-2.50*	-2.96*
No	19.17	19.63	16.67	2.50*	2.96*
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	7.93	8.00	8.02	-0.09	-0.02
Life sciences	14.46	14.49	14.24	0.22	0.25
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	11.02	11.24	11.05	-0.03	0.19
Health	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	7.14	7.66	6.92	0.22	0.74
Unknown	20.29	20.12	20.82	-0.53	-0.70
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	42.92	42.89	42.16	0.76	0.73
65%–80%	28.54	28.76	28.00	0.54	0.76
81%–92%	21.61	21.48	23.31	-1.70	-1.83
93% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-27. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	17.91	18.60	17.92	-0.01	0.68
41.65%–60.34%	37.98	35.96	39.20	-1.22	-3.24*
60.35% or more	42.98	44.09	42.15	0.83	1.94
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	93.83	93.83	92.81	1.02*	1.02
Yes	‡	‡	‡	‡	‡
Total number of institutions attended					
1	30.73	30.75	30.81	-0.08	-0.06
2	34.62	34.73	35.30	-0.68	-0.57
3	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-28. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit less-than-4-year institutions using weight WTC000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	‡	‡	‡	‡	‡
Mid East	10.97	21.01	15.14	-4.17	5.87
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	17.68	34.26	32.81	-15.13*	1.45
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	47.46	18.73	15.37	32.09	3.36
Institution total enrollment					
0–2,628	97.67	98.73	96.93	0.74	1.80
2,629–10,233	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	53.44	70.55	70.01	-16.57	0.54
24–29	‡	‡	‡	‡	‡
30 or more	26.61	16.69	15.71	10.90	0.98
Pell Grant status					
Received	22.63	29.48	28.83	-6.20	0.65
Did not receive	77.37	70.52	71.17	6.20	-0.65
Total Pell Grant amount received					
$0 or unknown	19.84	25.80	25.77	-5.93	0.03
$1–$3,500	‡	‡	‡	‡	‡
$3,501–$6,352	40.30	32.96	13.49	26.81	19.47*
$6,353–$13,088	15.45	17.65	19.52	-4.07	-1.87
$13,089 or more	‡	‡	‡	‡	‡
Stafford Loan status					
Received	30.58	29.09	42.52	-11.94	-13.43
Did not receive	69.42	70.91	57.48	11.94	13.43
Total Stafford Loan amount received					
$0 or unknown	27.16	26.32	40.04	-12.88	-13.72
$1–$6,365	16.53	21.79	12.41	4.12	9.38*
$6,366–$12,755	40.71	29.52	19.51	21.20	10.01
$12,756–$26,000	9.15	13.58	14.64	-5.49	-1.06
$26,001 or more	‡	‡	‡	‡	‡

See notes at end of table.

Table H-28. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit less-than-4-year institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	85.08	82.76	77.44	7.64	5.32
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	27.16	26.32	40.04	-12.88	-13.72
Received	72.84	73.68	59.96	12.88	13.72
Institutional aid status					
Did not receive	64.64	60.17	40.85	23.79*	19.32
Received	19.62	33.61	34.30	-14.68	-0.69
Unknown	‡	‡	‡	‡	‡
State aid status					
Did not receive	70.98	74.21	49.82	21.16	24.39*
Received	13.27	19.57	25.34	-12.07*	-5.77
Unknown	‡	‡	‡	‡	‡
Current Population Survey record available					
Yes	89.55	85.35	86.39	3.16	-1.04
No	‡	‡	‡	‡	‡
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡
Unknown	33.96	37.55	56.88	-22.92*	-19.33
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡
81%–92%	63.13	47.60	44.67	18.46	2.93
93% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-28. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit less-than-4-year institutions using weight WTC000: 2012–17—Continued

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡
60.35% or more	15.35	25.87	21.20	-5.85	4.67
Unknown	47.40	18.32	15.37	32.03	2.95
Six-year federal loan default status					
No	78.54	74.42	84.88	-6.34	-10.46
Yes	21.46	25.58	15.12	6.34	10.46
Total number of institutions attended					
1	62.31	38.03	43.08	19.23	-5.05
2	19.21	38.55	27.47	-8.26	11.08
3	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-29. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	13.12	13.69	12.08	1.04	1.61
Mid East	21.22	21.19	20.33	0.89	0.86
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	22.24	21.34	22.22	0.02	-0.88
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Institution total enrollment					
0–2,628	59.47	60.37	59.36	0.11	1.01
2,629–10,233	36.72	36.64	36.98	-0.26	-0.34
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	98.01	97.72	98.34	-0.33*	-0.62
24–29	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡
Pell Grant status					
Received	61.34	60.86	58.08	3.26*	2.78*
Did not receive	38.66	39.14	41.92	-3.26*	-2.78*
Total Pell Grant amount received					
$0 or unknown	53.88	53.58	50.85	3.03*	2.73*
$1–$3,500	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡
$13,089 or more	19.24	20.00	19.70	-0.46	0.30
Stafford Loan status					
Received	31.13	30.34	31.39	-0.26	-1.05
Did not receive	68.87	69.66	68.61	0.26	1.05
Total Stafford Loan amount received					
$0 or unknown	28.56	27.34	27.57	0.99	-0.23
$1–$6,365	‡	‡	‡	‡	‡
$6,366–$12,755	9.40	9.94	9.95	-0.55	-0.01
$12,756–$26,000	18.04	18.37	17.74	0.30	0.63
$26,001 or more	34.29	34.58	32.75	1.54*	1.83*

See notes at end of table.

Table H-29. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	75.41	75.27	76.12	-0.71	-0.85
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	28.52	27.29	27.52	1.00	-0.23
Received	71.48	72.71	72.48	-1.00	0.23
Institutional aid status					
Did not receive	17.87	17.81	17.67	0.20	0.14
Received	77.54	76.69	77.20	0.34	-0.51
Unknown	4.59	5.50	5.14	-0.55	0.36
State aid status					
Did not receive	66.52	66.74	66.01	0.51	0.73
Received	28.88	27.76	28.85	0.03	-1.09
Unknown	4.59	5.50	5.14	-0.55	0.36
Current Population Survey record available					
Yes	86.49	86.01	87.04	-0.55	-1.03
No	13.51	13.99	12.96	0.55	1.03
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡
Unknown	34.02	35.58	33.69	0.33	1.89
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡
81%–92%	18.28	18.51	18.02	0.26	0.49
93% or more	61.61	64.66	62.26	-0.65	2.40
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-29. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡
41.65%–60.34%	32.84	34.78	32.66	0.18	2.12
60.35% or more	48.05	46.65	46.41	1.64*	0.24
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	89.86	89.86	88.80	1.06*	1.06
Yes	‡	‡	‡	‡	‡
Total number of institutions attended					
1	34.26	33.00	32.85	1.41	0.15
2	33.75	34.30	35.01	-1.26*	-0.71
3	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-30. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTC000: 2012–17

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	13.09	14.09	15.67	-2.58	-1.58
Mid East	31.34	33.26	32.78	-1.44	0.48
Great Lakes	12.35	12.84	13.01	-0.66	-0.17
Plains	6.42	5.66	5.40	1.02*	0.26
Southeast	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Institution total enrollment					
0–2,628	‡	‡	‡	‡	‡
2,629–10,233	43.53	44.16	42.70	0.83	1.46
10,234–26,884	35.45	34.37	36.41	-0.96	-2.04
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	98.79	98.56	98.57	0.22	-0.01
24–29	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡
Pell Grant status					
Received	70.50	71.22	67.90	2.60	3.32
Did not receive	29.50	28.78	32.10	-2.60	-3.32
Total Pell Grant amount received					
$0 or unknown	64.04	64.34	61.82	2.22	2.52
$1–$3,500	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡
$13,089 or more	16.99	16.79	18.31	-1.32	-1.52
Stafford Loan status					
Received	42.45	42.34	39.74	2.71*	2.60
Did not receive	57.55	57.66	60.26	-2.71*	-2.60
Total Stafford Loan amount received					
$0 or unknown	38.73	38.65	36.42	2.31	2.23
$1–$6,365	‡	‡	‡	‡	‡
$6,366–$12,755	‡	‡	‡	‡	‡
$12,756–$26,000	18.98	19.03	23.36	-4.38	-4.33
$26,001 or more	29.74	29.65	28.34	1.40	1.31

See notes at end of table.

Table H-30. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	79.30	78.87	82.21	-2.91*	-3.34*
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	9.56	10.16	7.66	1.90*	2.50*
Federal aid status					
Did not receive	38.08	38.15	35.19	2.89*	2.96
Received	61.92	61.85	64.81	-2.89*	-2.96
Institutional aid status					
Did not receive	25.50	24.69	24.38	1.12	0.31
Received	66.42	65.62	66.05	0.37	-0.43
Unknown	8.09	9.70	9.57	-1.48	0.13
State aid status					
Did not receive	71.91	70.79	70.04	1.87	0.75
Received	20.00	19.51	20.39	-0.39	-0.88
Unknown	8.09	9.70	9.57	-1.48	0.13
Current Population Survey record available					
Yes	75.53	74.68	76.43	-0.90	-1.75
No	24.47	25.32	23.57	0.90	1.75
Major					
Humanities	16.80	16.56	14.45	2.35*	2.11*
Social/behavioral sciences	9.32	9.35	10.69	-1.37	-1.34
Life sciences	10.14	10.30	11.44	-1.30	-1.14
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	11.35	11.86	11.15	0.20	0.71
Health	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡
Unknown	26.14	25.43	24.52	1.62	0.91
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	23.49	22.16	21.75	1.74	0.41
65%–80%	15.32	16.25	14.32	1.00	1.93
81%–92%	16.50	15.81	18.78	-2.28	-2.97
93% or more	44.51	45.60	44.93	-0.42	0.67
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-30. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTC000: 2012–17—Continued

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡
41.65%–60.34%	27.31	26.39	27.71	-0.40	-1.32
60.35% or more	64.47	66.14	63.64	0.83	2.50
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	95.20	95.27	93.35	1.85	1.92
Yes	‡	‡	‡	‡	‡
Total number of institutions attended					
1	37.90	37.87	41.54	-3.64	-3.67
2	30.67	30.78	28.21	2.46*	2.57
3	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-31. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit less-than-2-year institutions using weight WTC000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	9.13	8.31	7.15	1.98	1.16
Mid East	15.47	11.18	15.53	-0.06	-4.35
Great Lakes	4.62	6.96	4.32	0.30	2.64
Plains	8.70	6.76	5.85	2.85	0.91
Southeast	15.11	19.56	17.94	-2.83	1.62
Southwest	31.63	28.23	31.13	0.50	-2.90
Rocky Mountains	7.76	7.24	10.41	-2.65	-3.17
Far West	‡	‡	‡	‡	‡
Institution total enrollment					
0–2,628	99.53	98.23	99.67	-0.14	-1.44
2,629–10,233	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	67.93	64.86	69.36	-1.43	-4.50
24–29	11.60	14.13	12.10	-0.50	2.03
30 or more	20.47	21.01	18.54	1.93	2.47
Pell Grant status					
Received	16.25	14.97	6.19	10.06*	8.78*
Did not receive	83.75	85.03	93.81	-10.06*	-8.78*
Total Pell Grant amount received					
$0 or unknown	12.37	12.59	5.07	7.30*	7.52*
$1–$3,500	19.54	20.39	14.78	4.76*	5.61*
$3,501–$6,352	34.46	37.99	41.65	-7.19*	-3.66
$6,353–$13,088	26.73	23.40	29.70	-2.97	-6.30
$13,089 or more	‡	‡	‡	‡	‡
Stafford Loan status					
Received	18.63	14.86	17.04	1.59	-2.18
Did not receive	81.37	85.14	82.96	-1.59	2.18
Total Stafford Loan amount received					
$0 or unknown	16.43	15.58	15.74	0.69	-0.16
$1–$6,365	29.33	28.37	31.35	-2.02*	-2.98
$6,366–$12,755	36.10	39.98	34.44	1.66	5.54*
$12,756–$26,000	15.00	13.30	15.72	-0.72	-2.42
$26,001 or more	‡	‡	‡	‡	‡

See notes at end of table.

Table H-31. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit less-than-2-year institutions using weight WTC000: 2012‑17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	89.44	91.10	88.28	1.16	2.82
$1–$6,900	7.03	5.48	8.75	-1.72*	-3.27*
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	16.43	15.58	15.74	0.69	-0.16
Received	83.57	84.42	84.26	-0.69	0.16
Institutional aid status					
Did not receive	73.88	75.53	75.99	-2.11	-0.46
Received	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
State aid status					
Did not receive	72.40	75.98	74.51	-2.11*	1.47
Received	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Current Population Survey record available					
Yes	92.62	94.39	94.71	-2.09*	-0.32
No	‡	‡	‡	‡	‡
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	53.79	47.15	53.17	0.62	-6.02
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	33.88	39.54	33.29	0.59	6.25
Unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	6.24	5.34	6.28	-0.04	-0.94
65%–80%	58.08	52.43	52.62	5.46*	-0.19
81%–92%	27.07	35.46	31.66	-4.59	3.80
93% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-31. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit less-than-2-year institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡
Unknown	99.90	99.88	99.88	0.02	#
Six-year federal loan default status					
No	63.98	61.47	63.73	0.25	-2.26
Yes	36.02	38.53	36.27	-0.25	2.26
Total number of institutions attended					
1	31.14	36.23	29.63	1.51	6.60
2	24.25	24.26	24.38	-0.13	-0.12
3	28.67	24.36	30.31	-1.64	-5.95
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-32. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 2-year institutions using weight WTC000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	2.98	3.12	4.02	-1.04	-0.90
Mid East	20.88	20.76	20.28	0.60	0.48
Great Lakes	16.81	12.29	14.08	2.73	-1.79
Plains	‡	‡	‡	‡	‡
Southeast	22.20	20.07	26.39	-4.19	-6.32
Southwest	9.58	13.53	8.86	0.72	4.67
Rocky Mountains	5.23	6.09	4.11	1.12	1.98
Far West	19.44	22.31	20.25	-0.81	2.06
Institution total enrollment					
0–2,628	79.25	71.57	77.25	2.00	-5.68
2,629–10,233	16.91	25.63	18.92	-2.01	6.71
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	68.08	70.73	70.29	-2.21	0.44
24–29	15.73	13.24	13.01	2.72	0.23
30 or more	16.19	16.03	16.70	-0.51	-0.67
Pell Grant status					
Received	21.61	22.30	6.20	15.41*	16.10*
Did not receive	78.39	77.70	93.80	-15.41*	-16.10*
Total Pell Grant amount received					
$0 or unknown	16.09	17.64	4.66	11.43*	12.98*
$1–$3,500	20.56	20.10	21.55	-0.99	-1.45
$3,501–$6,352	34.98	32.03	36.94	-1.96	-4.91
$6,353–$13,088	20.75	22.98	23.07	-2.32*	-0.09
$13,089 or more	7.62	7.26	13.78	-6.16	-6.52
Stafford Loan status					
Received	12.83	13.72	23.13	-10.30*	-9.41*
Did not receive	87.17	86.28	76.87	10.30*	9.41*
Total Stafford Loan amount received					
$0 or unknown	14.63	14.28	18.51	-3.88	-4.23
$1–$6,365	23.69	23.73	23.69	#	0.04
$6,366–$12,755	36.30	32.99	31.86	4.44*	1.13
$12,756–$26,000	20.37	23.17	20.62	-0.25	2.55
$26,001 or more	5.01	5.84	5.32	-0.31	0.52

See notes at end of table.

Table H-32. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 2-year institutions using weight WTC000: 2012‑17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	87.48	84.00	88.01	-0.53	-4.01*
$1–$6,900	4.91	5.62	5.68	-0.77	-0.06
$6,901–$14,995	4.38	5.25	3.08	1.30*	2.17*
$14,996–$34,345	2.86	4.75	2.90	-0.04	1.85
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	14.63	14.28	18.51	-3.88	-4.23
Received	85.37	85.72	81.49	3.88	4.23
Institutional aid status					
Did not receive	83.74	82.78	80.81	2.93	1.97
Received	‡	‡	‡	‡	‡
Unknown	5.58	9.87	6.62	-1.04	3.25
State aid status					
Did not receive	88.83	85.66	85.86	2.97	-0.20
Received	‡	‡	‡	‡	‡
Unknown	5.58	9.87	6.62	-1.04	3.25
Current Population Survey record available					
Yes	95.09	96.01	96.34	-1.25	-0.33
No	4.91	3.99	3.66	1.25	0.33
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	44.80	37.67	42.25	2.55	-4.58
Vocational/technical	16.60	30.27	16.03	0.57	14.24*
Other technical/professional	20.62	11.90	17.07	3.55	-5.17
Unknown	3.09	8.19	7.39	-4.30	0.80
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	12.97	21.45	12.61	0.36	8.84*
65%–80%	36.64	33.16	32.72	3.92	0.44
81%–92%	30.20	28.42	31.95	-1.75	-3.53
93% or more	20.19	16.97	22.72	-2.53	-5.75
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-32. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 2-year institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	7.84	6.04	7.72	0.12	-1.68
41.65%–60.34%	25.94	34.40	25.00	0.94	9.40
60.35% or more	63.27	56.88	64.72	-1.45	-7.84
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	63.18	64.02	64.59	-1.41	-0.57
Yes	36.82	35.98	35.41	1.41	0.57
Total number of institutions attended					
1	40.82	50.26	40.14	0.68	10.12*
2	37.36	28.52	33.57	3.79	-5.05
3	11.94	11.62	12.27	-0.33	-0.65
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-33. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 4-year institutions using weight WTC000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	2.33	2.32	2.59	-0.26	-0.27
Mid East	6.95	8.49	8.97	-2.02*	-0.48
Great Lakes	9.32	6.98	6.32	3.00	0.66
Plains	18.99	15.27	18.66	0.33	-3.39
Southeast	14.90	21.67	15.61	-0.71	6.06
Southwest	25.91	25.73	26.07	-0.16	-0.34
Rocky Mountains	6.79	7.03	4.65	2.14	2.38
Far West	14.80	12.53	17.12	-2.32	-4.59
Institution total enrollment					
0–2,628	27.85	25.73	26.25	1.60	-0.52
2,629–10,233	17.48	18.96	21.94	-4.46*	-2.98
10,234–26,884	5.65	8.38	6.42	-0.77	1.96
26,885 or more	49.01	46.92	45.39	3.62	1.53
Age as of December 31, 2011					
15–23	49.02	50.64	55.18	-6.16*	-4.54
24–29	21.96	20.06	18.79	3.17	1.27
30 or more	29.02	29.30	26.03	2.99	3.27
Pell Grant status					
Received	25.40	24.97	25.19	0.21	-0.22
Did not receive	74.60	75.03	74.81	-0.21	0.22
Total Pell Grant amount received					
$0 or unknown	24.74	20.29	19.95	4.79	0.34
$1–$3,500	24.65	26.27	24.23	0.42	2.04
$3,501–$6,352	12.41	14.15	12.43	-0.02	1.72
$6,353–$13,088	19.63	20.83	20.68	-1.05	0.15
$13,089 or more	18.56	18.46	22.71	-4.15*	-4.25*
Stafford Loan status					
Received	22.98	22.05	19.28	3.70	2.77
Did not receive	77.02	77.95	80.72	-3.70	-2.77
Total Stafford Loan amount received					
$0 or unknown	24.66	20.67	18.69	5.97	1.98
$1–$6,365	23.99	24.94	23.86	0.13	1.08
$6,366–$12,755	13.12	15.08	14.51	-1.39	0.57
$12,756–$26,000	21.14	21.83	21.17	-0.03	0.66
$26,001 or more	17.08	17.47	21.75	-4.67*	-4.28*

See notes at end of table.

Table H-33. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 4-year institutions using weight WTC000: 2012-17—Continued

Variable	After nonresponse weight adjustment: Mean: Respondents, nonresponse adjusted[1] (1)	After poststratification adjustment: Means: Full sample, base weighted (2)	After poststratification adjustment: Means: Respondents, adjusted for nonresponse and post-stratification (3)	After poststratification adjustment: Difference: Mean (1) − Mean (3)	After poststratification adjustment: Difference: Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	90.83	90.53	87.98	2.85*	2.55*
$1–$6,900	2.41	2.94	3.36	-0.95*	-0.42
$6,901–$14,995	1.83	2.03	2.33	-0.50*	-0.30
$14,996–$34,345	2.36	2.43	3.34	-0.98*	-0.91
$34,346 or more	2.57	2.08	2.99	-0.42*	-0.91
Federal aid status					
Did not receive	24.66	20.65	18.69	5.97	1.96
Received	75.34	79.35	81.31	-5.97	-1.96
Institutional aid status					
Did not receive	93.28	87.58	92.66	0.62	-5.08*
Received	3.55	3.67	3.35	0.20	0.32
Unknown	3.17	8.75	3.99	-0.82	4.76*
State aid status					
Did not receive	91.91	86.26	89.40	2.51*	-3.14*
Received	4.92	4.99	6.60	-1.68*	-1.61
Unknown	3.17	8.75	3.99	-0.82	4.76*
Current Population Survey record available					
Yes	93.47	93.59	93.94	-0.47	-0.35
No	6.53	6.41	6.06	0.47	0.35
Major					
Humanities	11.39	10.10	12.82	-1.43	-2.72
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	9.28	11.36	10.83	-1.55*	0.53
Engineering	0.88	3.59	1.11	-0.23	2.48*
Education	‡	‡	‡	‡	‡
Business/management	26.55	28.94	23.84	2.71	5.10*
Health	13.04	12.97	13.65	-0.61	-0.68
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	22.74	22.29	25.99	-3.25*	-3.70*
Unknown	3.25	2.77	2.49	0.76	0.28
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	11.32	10.00	12.11	-0.79	-2.11
65%–80%	17.79	16.56	14.97	2.82	1.59
81%–92%	58.20	58.56	58.96	-0.76	-0.40
93% or more	12.69	14.88	13.96	-1.27	0.92
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-33. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 4-year institutions using weight WTC000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	47.15	49.51	46.01	1.14	3.50
23.65%–41.64%	31.61	27.82	31.54	0.07	-3.72
41.65%–60.34%	6.44	6.81	7.23	-0.79	-0.42
60.35% or more	1.27	2.72	1.49	-0.22	1.23
Unknown	13.53	13.14	13.72	-0.19	-0.58
Six-year federal loan default status					
No	63.05	63.48	68.78	-5.73*	-5.30*
Yes	36.95	36.52	31.22	5.73*	5.30*
Total number of institutions attended					
1	49.90	38.53	47.10	2.80	-8.57*
2	27.15	36.23	27.48	-0.33	8.75*
3	12.20	13.95	12.49	-0.29	1.46
4	4.65	5.08	6.18	-1.53*	-1.10*
5 or more	6.10	6.21	6.75	-0.65	-0.54

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-34. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in all institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Control and level of institution					
Public less-than-2-year	0.14	0.19	0.72	-0.58*	-0.53*
Public 2-year	37.00	37.09	38.67	-1.67*	-1.58
Public 4-year non-doctorate-granting	11.61	11.36	10.02	1.59*	1.34*
Public 4-year doctorate-granting	23.24	23.08	20.68	2.56*	2.40*
Private nonprofit less-than-4-year	0.35	0.36	0.64	-0.29	-0.28
Private nonprofit 4-year non-doctorate-granting	9.13	8.49	6.63	2.50*	1.86*
Private nonprofit 4-year doctorate-granting	9.31	9.02	9.06	0.25	-0.04
Private for-profit less-than-2-year	2.57	2.99	3.70	-1.13*	-0.71
Private for-profit 2-year	2.74	2.95	3.98	-1.24*	-1.03
Private for-profit 4-year	3.91	4.47	5.90	-1.99*	-1.43*
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	5.96	5.85	5.56	0.40	0.29
Mid East	15.33	15.25	14.76	0.57	0.49
Great Lakes	15.31	15.00	14.65	0.66	0.35
Plains	7.75	7.48	7.59	0.16	-0.11
Southeast	23.94	23.82	23.82	0.12	#
Southwest	12.77	12.88	13.17	-0.40	-0.29
Rocky Mountains	3.64	3.95	4.09	-0.45	-0.14
Far West	15.29	15.77	16.37	-1.08	-0.60
Institution total enrollment					
0–2,628	13.95	13.85	15.25	-1.30*	-1.40
2,629–10,233	24.78	24.17	23.28	1.50*	0.89
10,234–26,884	31.97	32.91	32.18	-0.21	0.73
26,885 or more	29.30	29.07	29.29	0.01	-0.22
Age as of December 31, 2011					
15–23	89.42	87.69	86.52	2.90*	1.17
24–29	4.73	5.43	6.00	-1.27*	-0.57
30 or more	5.86	6.87	7.49	-1.63*	-0.62
Pell Grant status					
Received	50.36	51.93	50.61	-0.25	1.32
Did not receive	49.64	48.07	49.39	0.25	-1.32
Total Pell Grant amount received					
$0 or unknown	41.66	43.80	40.68	0.98	3.12*
$1–$3,500	11.75	13.52	13.00	-1.25*	0.52
$3,501–$6,352	10.81	11.89	11.70	-0.89*	0.19
$6,353–$13,088	14.66	13.86	14.82	-0.16	-0.96
$13,089 or more	21.12	16.93	19.80	1.32*	-2.87*
Stafford Loan status					
Received	50.47	52.36	54.81	-4.34*	-2.45*
Did not receive	49.53	47.64	45.19	4.34*	2.45*
Total Stafford Loan amount received					
$0 or unknown	39.18	42.31	42.19	-3.01*	0.12
$1–$6,365	11.46	13.05	11.70	-0.24	1.35*
$6,366–$12,755	11.69	11.82	12.22	-0.53	-0.40
$12,756–$26,000	17.69	16.10	16.41	1.28*	-0.31
$26,001 or more	19.98	16.72	17.48	2.50*	-0.76

See notes at end of table.

Table H-34. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in all institutions using weight WTD000: 2012–17 —Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	87.19	88.39	88.99	-1.80*	-0.60
$1–$6,900	2.61	2.39	2.50	0.11	-0.11
$6,901–$14,995	3.11	2.87	2.61	0.50*	0.26
$14,996–$34,345	3.27	2.98	2.88	0.39*	0.10
$34,346 or more	3.82	3.37	3.02	0.80*	0.35*
Federal aid status					
Did not receive	39.08	42.22	42.07	-2.99*	0.15
Received	60.92	57.78	57.93	2.99*	-0.15
Institutional aid status					
Did not receive	62.72	64.31	66.75	-4.03*	-2.44*
Received	31.64	28.75	26.70	4.94*	2.05*
Unknown	5.64	6.94	6.54	-0.90*	0.40
State aid status					
Did not receive	70.26	71.14	72.76	-2.50*	-1.62*
Received	24.10	21.92	20.70	3.40*	1.22*
Unknown	5.64	6.94	6.54	-0.90*	0.40
Current Population Survey record available					
Yes	83.52	79.73	80.81	2.71*	-1.08
No	16.48	20.27	19.19	-2.71*	1.08
Major					
Humanities	24.80	23.44	23.79	1.01*	-0.35
Social/behavioral sciences	4.42	4.53	4.06	0.36	0.47
Life sciences	7.43	7.05	6.43	1.00*	0.62*
Physical sciences/math	1.40	1.35	1.18	0.22*	0.17
Computer/information science	2.22	2.23	2.71	-0.49*	-0.48
Engineering	4.86	4.59	4.56	0.30	0.03
Education	3.47	3.17	3.11	0.36	0.06
Business/management	9.04	9.83	9.21	-0.17	0.62
Health	10.89	10.12	12.28	-1.39*	-2.16*
Vocational/technical	2.41	3.59	2.72	-0.31*	0.87*
Other technical/professional	9.92	10.39	10.80	-0.88*	-0.41
Unknown	19.14	19.71	19.17	-0.03	0.54
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	35.60	34.69	35.34	0.26	-0.65
65%–80%	28.53	29.13	29.31	-0.78	-0.18
81%–92%	19.50	20.49	20.35	-0.85	0.14
93% or more	16.14	15.42	14.74	1.40*	0.68
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-34. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in all institutions using weight WTD000: 2012–17 —Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	31.18	31.49	33.65	-2.47*	-2.16*
23.65%–41.64%	21.56	21.61	22.04	-0.48	-0.43
41.65%–60.34%	19.86	19.41	17.30	2.56*	2.11*
60.35% or more	23.89	23.27	21.52	2.37*	1.75*
Unknown	3.52	4.22	5.49	-1.97*	-1.27*
Six-year federal loan default status					
No	92.86	88.47	92.52	0.34	-4.05*
Yes	7.14	11.53	7.48	-0.34	4.05*
Total number of institutions attended					
1	39.14	39.15	39.99	-0.85	-0.84
2	32.83	32.84	32.88	-0.05	-0.04
3	16.81	16.79	16.11	0.70*	0.68
4	7.07	7.06	6.78	0.29	0.28
5 or more	4.15	4.16	4.23	-0.08	-0.07

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-35. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public less-than-2-year institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	‡	‡	‡	‡	‡
Mid East	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Institution total enrollment					
0–2,628	100.00	99.69	100.00	#	-0.31
2,629–10,233	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	67.23	63.76	66.87	0.36	-3.11
24–29	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡
Pell Grant status					
Received	‡	‡	‡	‡	‡
Did not receive	59.06	55.85	51.21	7.85*	4.64
Total Pell Grant amount received					
$0 or unknown	‡	‡	‡	‡	‡
$1–$3,500	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡
$13,089 or more	‡	‡	‡	‡	‡
Stafford Loan status					
Received	55.86	58.33	80.27	-24.41*	-21.94
Did not receive	‡	‡	‡	‡	‡
Total Stafford Loan amount received					
$0 or unknown	45.31	53.53	68.28	-22.97*	-14.75
$1–$6,365	‡	‡	‡	‡	‡
$6,366–$12,755	‡	‡	‡	‡	‡
$12,756–$26,000	‡	‡	‡	‡	‡
$26,001 or more	‡	‡	‡	‡	‡

See notes at end of table.

Table H-35. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public less-than-2-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	97.45	98.62	99.59	-2.14	-0.97
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	45.31	53.53	68.28	-22.97*	-14.75
Received	54.69	46.47	31.72	22.97*	14.75
Institutional aid status					
Did not receive	91.44	95.95	86.29	5.15	9.66
Received	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
State aid status					
Did not receive	88.03	91.44	82.37	5.66	9.07
Received	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Current Population Survey record available					
Yes	87.94	73.77	83.84	4.10	-10.07
No	‡	‡	‡	‡	‡
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡
81%–92%	‡	‡	‡	‡	‡
93% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-35. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public less-than-2-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡
Unknown	100.00	100.00	100.00	#	#
Six-year federal loan default status					
No	89.75	86.12	95.25	-5.50*	-9.13*
Yes	‡	‡	‡	‡	‡
Total number of institutions attended					
1	49.63	51.11	53.11	-3.48	-2.00
2	‡	‡	‡	‡	‡
3	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-36. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 2-year institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	4.41	4.10	4.71	-0.30	-0.61
Mid East	13.27	13.15	12.72	0.55	0.43
Great Lakes	15.25	14.74	15.55	-0.30	-0.81
Plains	7.57	7.91	6.64	0.93*	1.27
Southeast	20.72	19.94	19.57	1.15*	0.37
Southwest	17.44	16.40	16.92	0.52	-0.52
Rocky Mountains	2.80	2.76	3.01	-0.21	-0.25
Far West	18.55	21.01	20.88	-2.33*	0.13
Institution total enrollment					
0–2,628	2.88	2.66	2.57	0.31	0.09
2,629–10,233	27.21	25.69	25.67	1.54*	0.02
10,234–26,884	41.48	43.55	42.99	-1.51	0.56
26,885 or more	28.44	28.10	28.77	-0.33	-0.67
Age as of December 31, 2011					
15–23	84.42	82.24	83.98	0.44	-1.74*
24–29	7.19	8.21	7.69	-0.50	0.52
30 or more	8.38	9.55	8.33	0.05	1.22
Pell Grant status					
Received	41.73	45.17	52.40	-10.67*	-7.23*
Did not receive	58.27	54.83	47.60	10.67*	7.23*
Total Pell Grant amount received					
$0 or unknown	31.41	36.02	38.47	-7.06*	-2.45
$1–$3,500	15.73	18.41	16.93	-1.20*	1.48
$3,501–$6,352	13.23	14.22	12.25	0.98*	1.97*
$6,353–$13,088	19.28	16.12	16.43	2.85*	-0.31
$13,089 or more	20.36	15.23	15.93	4.43*	-0.70
Stafford Loan status					
Received	75.15	75.70	81.40	-6.25*	-5.70*
Did not receive	24.85	24.30	18.60	6.25*	5.70*
Total Stafford Loan amount received					
$0 or unknown	55.32	58.08	60.76	-5.44*	-2.68*
$1–$6,365	13.06	14.34	11.96	1.10*	2.38*
$6,366–$12,755	11.74	10.62	9.96	1.78*	0.66
$12,756–$26,000	13.37	11.25	11.86	1.51*	-0.61
$26,001 or more	6.50	5.71	5.46	1.04*	0.25

See notes at end of table.

Table H-36. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 2-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	95.56	96.53	95.40	0.16	1.13*
$1–$6,900	1.14	0.99	1.15	-0.01	-0.16
$6,901–$14,995	1.55	1.11	1.56	-0.01	-0.45*
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	55.22	58.00	60.57	-5.35*	-2.57*
Received	44.78	42.00	39.43	5.35*	2.57*
Institutional aid status					
Did not receive	78.83	78.08	79.94	-1.11*	-1.86
Received	14.30	13.62	13.28	1.02*	0.34
Unknown	6.87	8.31	6.77	0.10	1.54
State aid status					
Did not receive	74.78	74.23	78.12	-3.34*	-3.89*
Received	18.34	17.46	15.11	3.23*	2.35*
Unknown	6.87	8.31	6.77	0.10	1.54
Current Population Survey record available					
Yes	80.28	75.19	72.57	7.71*	2.62
No	19.72	24.81	27.43	-7.71*	-2.62
Major					
Humanities	37.32	35.01	36.35	0.97	-1.34
Social/behavioral sciences	1.18	1.56	1.11	0.07	0.45*
Life sciences	2.62	2.91	2.78	-0.16	0.13
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	2.16	2.14	2.57	-0.41	-0.43
Engineering	3.67	3.28	3.95	-0.28	-0.67
Education	2.03	2.10	1.78	0.25*	0.32
Business/management	8.83	8.53	8.15	0.68*	0.38
Health	9.73	9.08	9.36	0.37	-0.28
Vocational/technical	3.87	5.30	3.70	0.17	1.60*
Other technical/professional	9.67	10.03	9.52	0.15	0.51
Unknown	18.21	19.42	20.03	-1.82*	-0.61
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	47.72	46.27	50.14	-2.42*	-3.87*
65%–80%	33.16	33.85	33.38	-0.22	0.47
81%–92%	12.03	13.83	10.26	1.77*	3.57*
93% or more	6.93	5.70	6.12	0.81*	-0.42
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-36. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 2-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	72.11	71.31	71.61	0.50	-0.30
23.65%–41.64%	24.17	24.68	24.59	-0.42	0.09
41.65%–60.34%	2.87	3.00	2.69	0.18	0.31
60.35% or more	0.70	0.67	1.00	-0.30	-0.33
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	94.60	90.16	95.52	-0.92*	-5.36*
Yes	5.40	9.84	4.48	0.92*	5.36*
Total number of institutions attended					
1	42.88	45.02	44.30	-1.42*	0.72
2	33.93	32.37	34.11	-0.18	-1.74
3	14.48	13.67	13.46	1.02*	0.21
4	5.03	5.53	4.62	0.41	0.91
5 or more	3.68	3.41	3.50	0.18	-0.09

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-37. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	‡	‡	‡	‡	‡
Mid East	17.30	16.83	15.21	2.09*	1.62
Great Lakes	13.85	15.13	14.85	-1.00	0.28
Plains	3.38	3.10	2.61	0.77*	0.49
Southeast	34.19	34.64	36.78	-2.59	-2.14
Southwest	3.21	3.99	3.01	0.20	0.98
Rocky Mountains	6.05	6.80	5.97	0.08	0.83
Far West	17.38	15.22	17.81	-0.43	-2.59
Institution total enrollment					
0–2,628	3.56	3.66	3.57	-0.01	0.09
2,629–10,233	36.59	38.50	32.26	4.33*	6.24*
10,234–26,884	35.36	36.81	35.44	-0.08	1.37
26,885 or more	24.50	21.03	28.74	-4.24	-7.71*
Age as of December 31, 2011					
15–23	94.32	92.85	92.34	1.98	0.51
24–29	2.52	3.60	3.83	-1.31	-0.23
30 or more	‡	‡	‡	‡	‡
Pell Grant status					
Received	52.75	52.79	53.74	-0.99	-0.95
Did not receive	47.25	47.21	46.26	0.99	0.95
Total Pell Grant amount received					
$0 or unknown	42.87	44.19	42.24	0.63	1.95
$1–$3,500	11.63	11.85	12.17	-0.54	-0.32
$3,501–$6,352	7.99	9.39	9.11	-1.12	0.28
$6,353–$13,088	13.90	14.12	15.01	-1.11	-0.89
$13,089 or more	23.61	20.45	21.47	2.14*	-1.02
Stafford Loan status					
Received	49.56	52.15	55.84	-6.28*	-3.69
Did not receive	50.44	47.85	44.16	6.28*	3.69
Total Stafford Loan amount received					
$0 or unknown	38.14	41.61	42.59	-4.45*	-0.98
$1–$6,365	12.04	13.23	11.91	0.13	1.32
$6,366–$12,755	11.91	11.53	12.20	-0.29	-0.67
$12,756–$26,000	18.87	16.96	17.16	1.71	-0.20
$26,001 or more	19.03	16.66	16.13	2.90*	0.53

See notes at end of table.

Table H-37. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	89.56	90.88	91.35	-1.79*	-0.47
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	38.14	41.61	42.59	-4.45*	-0.98
Received	61.86	58.39	57.41	4.45*	0.98
Institutional aid status					
Did not receive	74.30	77.57	79.08	-4.78*	-1.51
Received	23.75	20.27	19.35	4.40*	0.92
Unknown	‡	‡	‡	‡	‡
State aid status					
Did not receive	65.61	69.78	71.15	-5.54*	-1.37
Received	32.44	28.06	27.28	5.16*	0.78
Unknown	‡	‡	‡	‡	‡
Current Population Survey record available					
Yes	81.69	78.95	81.67	0.02	-2.72
No	18.31	21.05	18.33	-0.02	2.72
Major					
Humanities	30.62	32.22	30.36	0.26	1.86
Social/behavioral sciences	5.83	6.12	5.43	0.40	0.69
Life sciences	6.57	6.56	5.52	1.05*	1.04
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	4.53	4.89	4.63	-0.10	0.26
Business/management	7.61	7.40	7.02	0.59	0.38
Health	9.62	7.68	10.73	-1.11	-3.05*
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	8.36	8.26	6.88	1.48*	1.38
Unknown	15.95	16.63	16.99	-1.04	-0.36
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	31.75	30.94	29.25	2.50	1.69
65%–80%	39.75	38.96	43.89	-4.14*	-4.93
81%–92%	23.40	23.66	22.49	0.91	1.17
93% or more	5.10	6.13	4.37	0.73	1.76*
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-37. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	16.53	17.66	16.99	-0.46	0.67
23.65%–41.64%	43.86	43.99	49.05	-5.19*	-5.06*
41.65%–60.34%	28.88	28.52	25.20	3.68*	3.32
60.35% or more	10.73	9.00	8.76	1.97*	0.24
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	93.24	89.41	93.34	-0.10	-3.93*
Yes	6.76	10.59	6.66	0.10	3.93*
Total number of institutions attended					
1	43.78	40.60	43.73	0.05	-3.13
2	33.29	33.03	33.78	-0.49	-0.75
3	14.09	16.63	12.68	1.41*	3.95*
4	5.65	6.61	6.32	-0.67	0.29
5 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-38. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, doctorate-granting institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	3.98	3.97	3.62	0.36	0.35
Mid East	9.67	9.62	9.38	0.29	0.24
Great Lakes	16.86	17.37	16.38	0.48	0.99
Plains	6.98	7.98	7.87	-0.89	0.11
Southeast	29.99	29.73	30.13	-0.14	-0.40
Southwest	13.11	13.52	12.48	0.63	1.04
Rocky Mountains	3.82	4.09	5.06	-1.24	-0.97
Far West	15.59	13.73	15.07	0.52	-1.34
Institution total enrollment					
0–2,628	‡	‡	‡	‡	‡
2,629–10,233	7.46	6.57	6.85	0.61	-0.28
10,234–26,884	37.37	38.00	39.46	-2.09	-1.46
26,885 or more	55.17	55.43	53.69	1.48	1.74
Age as of December 31, 2011					
15–23	99.46	98.76	97.90	1.56	0.86
24–29	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡
Pell Grant status					
Received	62.79	65.76	60.80	1.99	4.96*
Did not receive	37.21	34.24	39.20	-1.99	-4.96*
Total Pell Grant amount received					
$0 or unknown	53.93	56.77	52.28	1.65	4.49*
$1–$3,500	6.78	7.28	7.28	-0.50	#
$3,501–$6,352	6.41	6.40	6.83	-0.42	-0.43
$6,353–$13,088	9.63	10.11	9.98	-0.35	0.13
$13,089 or more	23.24	19.44	23.62	-0.38	-4.18*
Stafford Loan status					
Received	41.27	42.94	40.67	0.60	2.27
Did not receive	58.73	57.06	59.33	-0.60	-2.27
Total Stafford Loan amount received					
$0 or unknown	31.94	35.66	31.50	0.44	4.16*
$1–$6,365	7.52	9.01	7.32	0.20	1.69*
$6,366–$12,755	8.38	9.28	10.01	-1.63	-0.73
$12,756–$26,000	21.95	19.94	21.34	0.61	-1.40
$26,001 or more	30.20	26.11	29.83	0.37	-3.72*

See notes at end of table.

Table H-38. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	81.76	82.42	84.07	-2.31*	-1.65*
$1–$6,900	3.09	3.19	2.62	0.47*	0.57
$6,901–$14,995	4.70	4.61	3.99	0.71*	0.62
$14,996–$34,345	4.94	4.77	4.72	0.22	0.05
$34,346 or more	5.51	5.01	4.61	0.90*	0.40
Federal aid status					
Did not receive	31.82	35.59	31.38	0.44	4.21*
Received	68.18	64.41	68.62	-0.44	-4.21*
Institutional aid status					
Did not receive	57.07	59.73	58.36	-1.29	1.37
Received	39.72	36.33	36.72	3.00*	-0.39
Unknown	3.21	3.94	4.92	-1.71	-0.98
State aid status					
Did not receive	60.83	62.97	59.88	0.95	3.09
Received	35.97	33.09	35.20	0.77	-2.11
Unknown	3.21	3.94	4.92	-1.71	-0.98
Current Population Survey record available					
Yes	84.32	80.37	84.80	-0.48	-4.43*
No	15.68	19.63	15.20	0.48	4.43*
Major					
Humanities	15.10	14.26	15.42	-0.32	-1.16
Social/behavioral sciences	7.96	8.00	8.15	-0.19	-0.15
Life sciences	15.65	14.49	14.35	1.30*	0.14
Physical sciences/math	2.54	2.79	2.27	0.27*	0.52*
Computer/information science	‡	‡	‡	‡	‡
Engineering	8.90	8.34	7.92	0.98*	0.42
Education	4.20	3.91	4.84	-0.64	-0.93
Business/management	9.48	11.24	9.60	-0.12	1.64
Health	7.61	7.28	7.92	-0.31	-0.64
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	6.88	7.66	8.20	-1.32	-0.54
Unknown	19.73	20.12	19.46	0.27	0.66
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	43.06	42.89	40.74	2.32*	2.15
65%–80%	27.69	28.76	29.58	-1.89	-0.82
81%–92%	22.65	21.48	23.13	-0.48	-1.65
93% or more	6.60	6.87	6.55	0.05	0.32
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-38. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in public 4-year, doctorate-granting institutions using weight WTD000: 2012–17—Continued

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	17.73	18.60	18.72	-0.99	-0.12
41.65%–60.34%	38.05	35.96	37.41	0.64	-1.45
60.35% or more	43.53	44.09	42.61	0.92	1.48
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	96.06	93.83	95.49	0.57	-1.66
Yes	3.94	6.17	4.51	-0.57	1.66
Total number of institutions attended					
1	31.51	30.75	32.31	-0.80	-1.56
2	33.64	34.73	33.42	0.22	1.31
3	20.15	20.19	20.89	-0.74	-0.70
4	9.77	9.05	8.83	0.94*	0.22
5 or more	4.92	5.28	4.55	0.37	0.73*

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-39. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit less-than-4-year institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	‡	‡	‡	‡	‡
Mid East	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	24.02	34.26	28.79	-4.77	5.47
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Institution total enrollment					
0–2,628	98.85	98.73	99.31	-0.46	-0.58
2,629–10,233	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	66.24	70.55	75.03	-8.79	-4.48
24–29	‡	‡	‡	‡	‡
30 or more	‡	‡	‡	‡	‡
Pell Grant status					
Received	32.90	29.48	28.83	4.07	0.65
Did not receive	67.10	70.52	71.17	-4.07	-0.65
Total Pell Grant amount received					
$0 or unknown	28.55	25.80	24.57	3.98	1.23
$1–$3,500	‡	‡	‡	‡	‡
$3,501–$6,352	‡	‡	‡	‡	‡
$6,353–$13,088	‡	‡	‡	‡	‡
$13,089 or more	‡	‡	‡	‡	‡
Stafford Loan status					
Received	‡	‡	‡	‡	‡
Did not receive	72.49	70.91	57.47	15.02	13.44
Total Stafford Loan amount received					
$0 or unknown	‡	‡	‡	‡	‡
$1–$6,365	‡	‡	‡	‡	‡
$6,366–$12,755	27.31	29.52	13.89	13.42	15.63*
$12,756–$26,000	‡	‡	‡	‡	‡
$26,001 or more	‡	‡	‡	‡	‡

See notes at end of table.

Table H-39. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit less-than-4-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	71.13	82.76	73.39	-2.26	9.37
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	‡	‡	‡	‡	‡
Received	74.77	73.68	58.47	16.30	15.21
Institutional aid status					
Did not receive	54.31	60.17	36.61	17.70	23.56*
Received	34.74	33.61	35.95	-1.21	-2.34
Unknown	‡	‡	‡	‡	‡
State aid status					
Did not receive	65.35	74.21	46.40	18.95	27.81*
Received	23.70	19.57	26.17	-2.47	-6.60
Unknown	‡	‡	‡	‡	‡
Current Population Survey record available					
Yes	89.29	85.35	89.57	-0.28	-4.22
No	‡	‡	‡	‡	‡
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡
Vocational/technical	46.33	18.86	23.29	23.04	-4.43
Other technical/professional	‡	‡	‡	‡	‡
Unknown	35.02	37.55	55.00	-19.98*	-17.45
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	‡	‡	‡	‡	‡
65%–80%	‡	‡	‡	‡	‡
81%–92%	49.08	47.60	39.68	9.40	7.92
93% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-39. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit less-than-4-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	30.71	22.84	50.73	-20.02*	-27.89*
23.65%–41.64%	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	88.33	74.42	87.81	0.52	-13.39
Yes	‡	‡	‡	‡	‡
Total number of institutions attended					
1	‡	‡	‡	‡	‡
2	25.63	38.55	29.36	-3.73	9.19
3	‡	‡	‡	‡	‡
4	‡	‡	‡	‡	‡
5 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-40. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	12.53	13.69	10.49	2.04	3.20*
Mid East	20.68	21.19	19.04	1.64	2.15
Great Lakes	19.64	20.16	20.74	-1.10	-0.58
Plains	11.26	10.22	10.41	0.85	-0.19
Southeast	23.09	21.34	27.43	-4.34	-6.09*
Southwest	3.36	4.15	3.14	0.22	1.01*
Rocky Mountains	‡	‡	‡	‡	‡
Far West	7.09	6.37	6.66	0.43	-0.29
Institution total enrollment					
0–2,628	61.24	60.37	60.46	0.78	-0.09
2,629–10,233	35.43	36.64	36.02	-0.59	0.62
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	98.36	97.72	95.32	3.04	2.40
24–29	‡	‡	‡	‡	‡
30 or more	1.33	1.81	3.98	-2.65	-2.17
Pell Grant status					
Received	60.89	60.86	55.79	5.10*	5.07*
Did not receive	39.11	39.14	44.21	-5.10*	-5.07*
Total Pell Grant amount received					
$0 or unknown	52.55	53.58	48.83	3.72	4.75*
$1–$3,500	8.51	7.38	6.61	1.90*	0.77
$3,501–$6,352	7.48	8.77	7.15	0.33	1.62
$6,353–$13,088	9.79	10.26	11.01	-1.22	-0.75
$13,089 or more	21.67	20.00	26.40	-4.73*	-6.40*
Stafford Loan status					
Received	27.02	30.34	32.52	-5.50*	-2.18
Did not receive	72.98	69.66	67.48	5.50*	2.18
Total Stafford Loan amount received					
$0 or unknown	24.75	27.34	26.73	-1.98	0.61
$1–$6,365	7.81	9.78	7.44	0.37	2.34
$6,366–$12,755	8.64	9.94	10.29	-1.65	-0.35
$12,756–$26,000	18.93	18.37	18.08	0.85	0.29
$26,001 or more	39.87	34.58	37.47	2.40	-2.89

See notes at end of table.

Table H-40. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	74.38	75.27	77.96	-3.58*	-2.69
$1–$6,900	3.58	3.64	2.94	0.64*	0.70
$6,901–$14,995	5.87	6.27	5.10	0.77*	1.17
$14,996–$34,345	6.82	6.03	5.76	1.06*	0.27
$34,346 or more	9.35	8.79	8.24	1.11	0.55
Federal aid status					
Did not receive	24.66	27.29	26.63	-1.97	0.66
Received	75.34	72.71	73.37	1.97	-0.66
Institutional aid status					
Did not receive	15.15	17.81	17.24	-2.09	0.57
Received	80.81	76.69	75.73	5.08*	0.96
Unknown	4.04	5.50	7.03	-2.99	-1.53
State aid status					
Did not receive	67.06	66.74	65.13	1.93	1.61
Received	28.90	27.76	27.84	1.06	-0.08
Unknown	4.04	5.50	7.03	-2.99	-1.53
Current Population Survey record available					
Yes	89.23	86.01	88.22	1.01	-2.21
No	10.77	13.99	11.78	-1.01	2.21
Major					
Humanities	19.92	17.59	17.04	2.88*	0.55
Social/behavioral sciences	6.10	5.78	7.39	-1.29	-1.61
Life sciences	10.22	9.57	9.65	0.57	-0.08
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	5.60	5.52	5.29	0.31	0.23
Business/management	7.18	8.06	6.55	0.63	1.51
Health	4.80	5.12	5.49	-0.69	-0.37
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	6.10	7.95	7.35	-1.25	0.60
Unknown	35.11	35.58	36.23	-1.12	-0.65
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	10.65	9.10	10.52	0.13	-1.42
65%–80%	9.61	7.74	7.39	2.22	0.35
81%–92%	15.52	18.51	16.76	-1.24	1.75
93% or more	64.22	64.66	65.32	-1.10	-0.66
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-40. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, non-doctorate-granting institutions using weight WTD000: 2012–17—Continued

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	3.39	4.33	8.57	-5.18	-4.24
23.65%–41.64%	14.93	14.24	17.10	-2.17	-2.86
41.65%–60.34%	33.81	34.78	30.11	3.70*	4.67*
60.35% or more	47.86	46.65	44.22	3.64	2.43
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	92.21	89.86	92.90	-0.69	-3.04*
Yes	7.79	10.14	7.10	0.69	3.04*
Total number of institutions attended					
1	36.61	33.00	37.03	-0.42	-4.03
2	31.64	34.30	31.54	0.10	2.76
3	18.20	18.62	17.06	1.14	1.56
4	8.88	8.93	8.41	0.47	0.52
5 or more	4.67	5.14	5.96	-1.29	-0.82

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-41. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	13.76	14.09	13.42	0.34	0.67
Mid East	29.96	33.26	29.65	0.31	3.61*
Great Lakes	12.65	12.84	12.91	-0.26	-0.07
Plains	7.27	5.66	6.96	0.31	-1.30
Southeast	18.44	16.78	18.93	-0.49	-2.15
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	9.72	9.83	9.83	-0.11	#
Institution total enrollment					
0–2,628	7.53	6.38	7.78	-0.25	-1.40
2,629–10,233	44.38	44.16	44.29	0.09	-0.13
10,234–26,884	34.96	34.37	34.96	#	-0.59
26,885 or more	13.12	15.08	12.97	0.15	2.11
Age as of December 31, 2011					
15–23	98.34	98.56	98.19	0.15	0.37
24–29	‡	‡	‡	‡	‡
30 or more	1.44	1.29	1.57	-0.13	-0.28
Pell Grant status					
Received	69.42	71.22	67.99	1.43*	3.23*
Did not receive	30.58	28.78	32.01	-1.43*	-3.23*
Total Pell Grant amount received					
$0 or unknown	62.71	64.34	61.46	1.25*	2.88*
$1–$3,500	5.80	6.49	5.79	0.01	0.70
$3,501–$6,352	5.27	5.02	5.47	-0.20*	-0.45
$6,353–$13,088	7.99	7.36	8.24	-0.25	-0.88
$13,089 or more	18.24	16.79	19.04	-0.80*	-2.25*
Stafford Loan status					
Received	38.24	42.34	39.89	-1.65*	2.45
Did not receive	61.76	57.66	60.11	1.65*	-2.45
Total Stafford Loan amount received					
$0 or unknown	34.75	38.65	35.96	-1.21*	2.69*
$1–$6,365	5.64	5.86	5.73	-0.09	0.13
$6,366–$12,755	5.99	6.82	6.25	-0.26	0.57
$12,756–$26,000	19.51	19.03	19.50	0.01	-0.47
$26,001 or more	34.10	29.65	32.56	1.54*	-2.91*

See notes at end of table.

Table H-41. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	77.93	78.87	78.99	-1.06*	-0.12
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	5.55	5.34	5.23	0.32*	0.11
$34,346 or more	10.59	10.16	9.76	0.83*	0.40
Federal aid status					
Did not receive	34.53	38.15	35.80	-1.27*	2.35
Received	65.47	61.85	64.20	1.27*	-2.35
Institutional aid status					
Did not receive	23.80	24.69	24.23	-0.43	0.46
Received	68.49	65.62	68.23	0.26	-2.61
Unknown	7.71	9.70	7.53	0.18	2.17
State aid status					
Did not receive	72.06	70.79	71.65	0.41	-0.86
Received	20.23	19.51	20.82	-0.59*	-1.31
Unknown	7.71	9.70	7.53	0.18	2.17
Current Population Survey record available					
Yes	80.32	74.68	79.84	0.48*	-5.16*
No	19.68	25.32	20.16	-0.48*	5.16*
Major					
Humanities	16.56	16.56	16.64	-0.08	-0.08
Social/behavioral sciences	8.63	9.35	8.27	0.36	1.08
Life sciences	10.38	10.30	10.30	0.08	#
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	6.27	6.17	6.01	0.26	0.16
Education	‡	‡	‡	‡	‡
Business/management	9.87	11.86	10.15	-0.28*	1.71
Health	5.20	5.76	5.22	-0.02	0.54
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	9.03	7.58	8.52	0.51	-0.94
Unknown	26.26	25.43	26.87	-0.61*	-1.44
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	23.72	22.16	24.01	-0.29	-1.85
65%–80%	14.52	16.25	14.26	0.26	1.99
81%–92%	15.40	15.81	15.64	-0.24	0.17
93% or more	46.10	45.60	45.78	0.32	-0.18
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-41. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private nonprofit 4-year, doctorate-granting institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	6.75	5.79	7.10	-0.35	-1.31
41.65%–60.34%	27.67	26.39	28.04	-0.37	-1.65
60.35% or more	63.66	66.14	62.88	0.78*	3.26*
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	96.03	95.27	96.14	-0.11	-0.87*
Yes	3.97	4.73	3.86	0.11	0.87*
Total number of institutions attended					
1	37.09	37.87	36.84	0.25	1.03
2	32.06	30.78	32.27	-0.21	-1.49
3	19.46	20.20	19.40	0.06	0.80
4	7.54	7.41	7.62	-0.08	-0.21
5 or more	‡	‡	‡	‡	‡

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-42. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit less-than-2-year institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	‡	‡	‡	‡	‡
Mid East	18.73	11.18	23.69	-4.96	-12.51*
Great Lakes	6.64	6.96	4.05	2.59	2.91
Plains	10.88	6.76	6.50	4.38	0.26
Southeast	12.15	19.56	14.96	-2.81	4.60
Southwest	31.71	28.23	30.02	1.69	-1.79
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Institution total enrollment					
0–2,628	99.85	98.23	99.80	0.05	-1.57
2,629–10,233	‡	‡	‡	‡	‡
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	67.87	64.86	63.17	4.70	1.69
24–29	15.39	14.13	17.80	-2.41	-3.67
30 or more	16.75	21.01	19.03	-2.28	1.98
Pell Grant status					
Received	23.74	14.97	6.20	17.54*	8.77*
Did not receive	76.26	85.03	93.80	-17.54*	-8.77*
Total Pell Grant amount received					
$0 or unknown	20.08	12.59	5.51	14.57*	7.08*
$1–$3,500	16.33	20.39	13.44	2.89	6.95
$3,501–$6,352	32.94	37.99	38.79	-5.85*	-0.80
$6,353–$13,088	22.60	23.40	30.93	-8.33	-7.53
$13,089 or more	8.04	5.64	11.34	-3.30	-5.70
Stafford Loan status					
Received	10.64	14.86	17.05	-6.41	-2.19
Did not receive	89.36	85.14	82.95	6.41	2.19
Total Stafford Loan amount received					
$0 or unknown	9.31	15.58	10.96	-1.65	4.62
$1–$6,365	26.80	28.37	25.03	1.77	3.34
$6,366–$12,755	43.68	39.98	46.67	-2.99	-6.69
$12,756–$26,000	13.57	13.30	12.91	0.66	0.39
$26,001 or more	‡	‡	‡	‡	‡

See notes at end of table.

Table H-42. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit less-than-2-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	85.43	91.10	88.76	-3.33	2.34
$1–$6,900	‡	‡	‡	‡	‡
$6,901–$14,995	‡	‡	‡	‡	‡
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	9.31	15.58	10.96	-1.65	4.62
Received	90.69	84.42	89.04	1.65	-4.62
Institutional aid status					
Did not receive	71.87	75.53	76.45	-4.58	-0.92
Received	‡	‡	‡	‡	‡
Unknown	25.53	21.85	21.90	3.63	-0.05
State aid status					
Did not receive	69.55	75.98	74.08	-4.53	1.90
Received	‡	‡	‡	‡	‡
Unknown	25.53	21.85	21.90	3.63	-0.05
Current Population Survey record available					
Yes	90.91	94.39	93.21	-2.30	1.18
No	‡	‡	‡	‡	‡
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	51.64	47.15	50.21	1.43	-3.06
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	42.05	39.54	38.74	3.31	0.80
Unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	‡	‡	‡	‡	‡
65%–80%	59.93	52.43	56.13	3.80	-3.70
81%–92%	20.65	35.46	27.16	-6.51	8.30
93% or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-42. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit less-than-2-year institutions using weight WTD000: 2012–17—Continued

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	‡	‡	‡	‡	‡
41.65%–60.34%	‡	‡	‡	‡	‡
60.35% or more	‡	‡	‡	‡	‡
Unknown	99.81	99.88	99.97	-0.16	-0.09
Six-year federal loan default status					
No	75.03	61.47	73.70	1.33	-12.23*
Yes	24.97	38.53	26.30	-1.33	12.23*
Total number of institutions attended					
1	30.42	36.23	27.94	2.48	8.29
2	21.72	24.26	26.52	-4.80	-2.26
3	29.59	24.36	28.50	1.09	-4.14
4	12.00	10.01	12.14	-0.14	-2.13
5 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-43. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 2-year institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	‡	‡	‡	‡	‡
Mid East	19.50	20.76	17.50	2.00	3.26
Great Lakes	22.02	12.29	17.02	5.00	-4.73
Plains	‡	‡	‡	‡	‡
Southeast	20.66	20.07	27.30	-6.64*	-7.23
Southwest	9.31	13.53	7.99	1.32	5.54
Rocky Mountains	4.20	6.09	3.29	0.91	2.80*
Far West	19.43	22.31	22.74	-3.31	-0.43
Institution total enrollment					
0–2,628	75.99	71.57	70.69	5.30	0.88
2,629–10,233	20.87	25.63	25.84	-4.97	-0.21
10,234–26,884	‡	‡	‡	‡	‡
26,885 or more	‡	‡	‡	‡	‡
Age as of December 31, 2011					
15–23	70.81	70.73	73.15	-2.34	-2.42
24–29	15.02	13.24	14.24	0.78	-1.00
30 or more	14.17	16.03	12.61	1.56	3.42
Pell Grant status					
Received	20.34	22.30	6.27	14.07*	16.03*
Did not receive	79.66	77.70	93.73	-14.07*	-16.03*
Total Pell Grant amount received					
$0 or unknown	16.41	17.64	4.94	11.47*	12.70*
$1–$3,500	15.71	20.10	20.01	-4.30*	0.09
$3,501–$6,352	33.33	32.03	34.24	-0.91	-2.21
$6,353–$13,088	22.77	22.98	23.26	-0.49	-0.28
$13,089 or more	11.78	7.26	17.55	-5.77	-10.29*
Stafford Loan status					
Received	9.56	13.72	23.17	-13.61*	-9.45
Did not receive	90.44	86.28	76.83	13.61*	9.45
Total Stafford Loan amount received					
$0 or unknown	8.91	14.28	15.81	-6.90*	-1.53
$1–$6,365	24.28	23.73	24.54	-0.26	-0.81
$6,366–$12,755	34.85	32.99	31.07	3.78	1.92
$12,756–$26,000	24.48	23.17	22.19	2.29	0.98
$26,001 or more	7.49	5.84	6.40	1.09	-0.56

See notes at end of table.

Table H-43. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 2-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	85.05	84.00	88.00	-2.95*	-4.00
$1–$6,900	6.48	5.62	6.24	0.24	-0.62
$6,901–$14,995	5.17	5.25	3.09	2.08*	2.16
$14,996–$34,345	‡	‡	‡	‡	‡
$34,346 or more	‡	‡	‡	‡	‡
Federal aid status					
Did not receive	8.91	14.28	15.81	-6.90*	-1.53
Received	91.09	85.72	84.19	6.90*	1.53
Institutional aid status					
Did not receive	84.30	82.78	84.94	-0.64	-2.16
Received	10.47	7.35	8.72	1.75	-1.37
Unknown	5.23	9.87	6.35	-1.12	3.52
State aid status					
Did not receive	86.34	85.66	82.83	3.51	2.83
Received	8.43	4.47	10.83	-2.40	-6.36
Unknown	5.23	9.87	6.35	-1.12	3.52
Current Population Survey record available					
Yes	96.07	96.01	96.88	-0.81	-0.87
No	‡	‡	‡	‡	‡
Major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	53.36	37.67	51.42	1.94	-13.75*
Vocational/technical	14.97	30.27	14.64	0.33	15.63*
Other technical/professional	14.58	11.90	13.77	0.81	-1.87
Unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	12.65	21.45	11.18	1.47	10.27*
65%–80%	26.66	33.16	26.25	0.41	6.91
81%–92%	40.42	28.42	42.54	-2.12	-14.12
93% or more	20.26	16.97	20.04	0.22	-3.07
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-43. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 2-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	‡	‡	‡	‡	‡
23.65%–41.64%	7.83	6.04	6.88	0.95	-0.84
41.65%–60.34%	23.49	34.40	25.57	-2.08	8.83
60.35% or more	66.00	56.88	65.25	0.75	-8.37
Unknown	‡	‡	‡	‡	‡
Six-year federal loan default status					
No	75.46	64.02	74.97	0.49	-10.95*
Yes	24.54	35.98	25.03	-0.49	10.95*
Total number of institutions attended					
1	37.76	50.26	39.50	-1.74	10.76
2	38.25	28.52	34.37	3.88	-5.85
3	13.39	11.62	11.02	2.37	0.60
4	7.19	6.10	9.33	-2.14	-3.23
5 or more	3.41	3.50	5.78	-2.37	-2.28

‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-44. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 4-year institutions using weight WTD000: 2012–17

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Bureau of Economic Analysis code (Office of Business Economics) region[2]					
New England	2.64	2.32	3.11	-0.47	-0.79
Mid East	9.50	8.49	9.98	-0.48	-1.49
Great Lakes	9.54	6.98	5.58	3.96	1.40
Plains	21.09	15.27	20.93	0.16	-5.66
Southeast	13.78	21.67	15.51	-1.73	6.16
Southwest	26.13	25.73	26.95	-0.82	-1.22
Rocky Mountains	3.77	7.03	3.99	-0.22	3.04
Far West	13.54	12.53	13.94	-0.40	-1.41
Institution total enrollment					
0–2,628	26.65	25.73	22.38	4.27	3.35
2,629–10,233	20.03	18.96	21.43	-1.40	-2.47
10,234–26,884	5.15	8.38	5.27	-0.12	3.11*
26,885 or more	48.17	46.92	50.92	-2.75	-4.00
Age as of December 31, 2011					
15–23	50.48	50.64	52.87	-2.39	-2.23
24–29	21.04	20.06	18.04	3.00	2.02
30 or more	28.48	29.30	29.10	-0.62	0.20
Pell Grant status					
Received	21.56	24.97	25.66	-4.10*	-0.69
Did not receive	78.44	75.03	74.34	4.10*	0.69
Total Pell Grant amount received					
$0 or unknown	20.13	20.29	18.78	1.35	1.51
$1–$3,500	19.52	26.27	20.71	-1.19	5.56*
$3,501–$6,352	11.13	14.15	10.79	0.34	3.36*
$6,353–$13,088	19.33	20.83	19.57	-0.24	1.26
$13,089 or more	29.89	18.46	30.15	-0.26	-11.69*
Stafford Loan status					
Received	14.95	22.05	19.48	-4.53*	2.57
Did not receive	85.05	77.95	80.52	4.53*	-2.57
Total Stafford Loan amount received					
$0 or unknown	18.60	20.67	18.36	0.24	2.31
$1–$6,365	19.96	24.94	21.73	-1.77	3.21
$6,366–$12,755	12.00	15.08	11.97	0.03	3.11*
$12,756–$26,000	21.04	21.83	20.53	0.51	1.30
$26,001 or more	28.40	17.47	27.41	0.99	-9.94*

See notes at end of table.

Table H-44. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 4-year institutions using weight WTD000: 2012–17—Continued

Variable	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Total Parent Loan for Undergraduate Students (PLUS) amount received					
$0 or unknown	88.97	90.53	89.12	-0.15	1.41
$1–$6,900	3.09	2.94	3.48	-0.39	-0.54
$6,901–$14,995	2.20	2.03	2.15	0.05	-0.12
$14,996–$34,345	2.65	2.43	2.68	-0.03	-0.25
$34,346 or more	3.09	2.08	2.57	0.52*	-0.49
Federal aid status					
Did not receive	18.60	20.65	18.36	0.24	2.29
Received	81.40	79.35	81.64	-0.24	-2.29
Institutional aid status					
Did not receive	91.75	87.58	92.22	-0.47	-4.64*
Received	3.33	3.67	2.99	0.34	0.68
Unknown	4.91	8.75	4.79	0.12	3.96*
State aid status					
Did not receive	89.52	86.26	89.82	-0.30	-3.56*
Received	5.57	4.99	5.39	0.18	-0.40
Unknown	4.91	8.75	4.79	0.12	3.96*
Current Population Survey record available					
Yes	94.76	93.59	92.64	2.12*	0.95
No	5.24	6.41	7.36	-2.12*	-0.95
Major					
Humanities	11.00	10.10	11.64	-0.64	-1.54
Social/behavioral sciences	2.48	1.75	2.71	-0.23	-0.96*
Life sciences	4.06	3.06	4.33	-0.27	-1.27*
Physical sciences/math	‡	‡	‡	‡	‡
Computer/information science	9.72	11.36	11.05	-1.33	0.31
Engineering	0.95	3.59	1.25	-0.30	2.34*
Education	8.28	2.98	3.65	4.63	-0.67
Business/management	23.89	28.94	25.55	-1.66	3.39
Health	15.43	12.97	14.71	0.72	-1.74
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	22.29	22.29	23.20	-0.91	-0.91
Unknown	1.86	2.77	1.92	-0.06	0.85
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid					
64% or less	9.68	10.00	11.20	-1.52	-1.20
65%–80%	16.94	16.56	13.82	3.12	2.74
81%–92%	60.38	58.56	61.98	-1.60	-3.42
93% or more	13.00	14.88	13.00	#	1.88
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

Table H-44. Student-level analysis after nonresponse and poststratification adjustments for selected variables for students in private for-profit 4-year institutions using weight WTD000: 2012‑17—Continued

	After nonresponse weight adjustment	After poststratification adjustment			
	Mean	Means		Difference	
Variable	Respondents, nonresponse adjusted[1] (1)	Full sample, base weighted (2)	Respondents, adjusted for nonresponse and post-stratification (3)	Mean (1) − Mean (3)	Mean (2) − Mean (3)
Graduation rate of full-time, first-time degree/certificate-seeking undergraduate students within 150% of normal time to completion					
23.64% or less	49.92	49.51	51.54	-1.62	-2.03
23.65%–41.64%	30.42	27.82	28.31	2.11	-0.49
41.65%–60.34%	6.88	6.81	6.69	0.19	0.12
60.35% or more	1.14	2.72	1.00	0.14	1.72
Unknown	11.64	13.14	12.45	-0.81	0.69
Six-year federal loan default status					
No	74.54	63.48	78.93	-4.39	-15.45*
Yes	25.46	36.52	21.07	4.39	15.45*
Total number of institutions attended					
1	51.18	38.53	46.39	4.79*	-7.86*
2	24.97	36.23	27.22	-2.25	9.01*
3	11.99	13.95	12.95	-0.96	1.00
4	6.04	5.08	6.53	-0.49	-1.45*
5 or more	5.81	6.21	6.90	-1.09	-0.69

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
* $p < 0.05$.
[1] Using the nonresponse adjusted weight.
[2] New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mid East = Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania; Great Lakes = Illinois, Indiana, Michigan, Ohio, Wisconsin; Plains = Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; Southeast = Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia; Southwest = Arizona, New Mexico, Oklahoma, Texas; Rocky Mountains = Colorado, Idaho, Montana, Utah, Wyoming; Far West = Alaska, California, Hawaii, Nevada, Oregon, Washington.
NOTE: Detail may not sum to totals because of rounding. “Base weight” refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Categories for Institution total enrollment, Pell Grant amount, Stafford Loan amount, PLUS amount, Percentage of students receiving any grant aid, and Graduation rate were defined by quartiles.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QT1STSTP (Transcript: Length of 1st stopout)											
Mean percent relative bias across characteristics	24.87	43.44	18.60	31.75	28.33	34.79	29.53	26.24	57.05	42.98	31.88
Median percent relative bias across characteristics	18.85	45.97	11.46	20.69	19.88	28.30	16.82	15.05	40.05	24.22	31.95
Percentage of characteristics with significant bias	64.38	30.00	31.15	30.19	28.07	11.63	28.07	6.90	18.37	20.97	35.48
Median effect size	0.16	0.60	0.12	0.20	0.21	0.48	0.21	0.19	0.37	0.33	0.25
QT2STSTP (Transcript: Length of 2nd stopout)											
Mean percent relative bias across characteristics	37.58	43.38	26.88	45.45	30.09	63.62	71.31	43.86	76.92	83.45	39.96
Median percent relative bias across characteristics	34.89	23.19	17.94	35.00	23.29	33.54	49.22	33.67	32.34	44.58	30.78
Percentage of characteristics with significant bias	64.38	23.53	41.67	30.00	5.26	14.29	24.00	9.09	5.00	13.73	24.59
Median effect size	0.29	0.34	0.19	0.36	0.28	0.82	0.43	0.29	0.58	0.40	0.35
QTASOC1DT (Transcript: Date of first known associate's degree received)											
Mean percent relative bias across characteristics	30.43	‡	24.02	11.05	22.15	‡	23.59	52.65	‡	59.03	43.83
Median percent relative bias across characteristics	22.06	‡	17.75	8.44	16.52	‡	17.26	43.86	‡	29.02	32.93
Percentage of characteristics with significant bias	61.11	‡	44.64	6.45	34.21	‡	38.89	42.50	‡	25.00	33.87
Median effect size	0.19	‡	0.15	0.15	0.21	‡	0.26	0.53	‡	0.37	0.39
QTASOC1IPEDS (Transcript: IPEDS ID of first known associate's degree received)											
Mean percent relative bias across characteristics	30.19	‡	23.74	11.17	21.37	‡	22.83	53.21	‡	60.52	43.86
Median percent relative bias across characteristics	21.47	‡	17.82	8.77	15.47	‡	16.45	44.86	‡	32.88	34.13
Percentage of characteristics with significant bias	59.72	‡	46.43	6.45	34.21	‡	38.89	43.59	‡	25.00	33.87
Median effect size	0.19	‡	0.14	0.15	0.20	‡	0.25	0.53	‡	0.37	0.39

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTASOCLTDT (Transcript: Date of most recent known associate's degree received)											
Mean percent relative bias across characteristics	30.43	‡	24.02	11.05	22.15	‡	23.59	52.65	‡	59.03	43.83
Median percent relative bias across characteristics	22.06	‡	17.75	8.44	16.52	‡	17.26	43.86	‡	29.02	32.93
Percentage of characteristics with significant bias	61.11	‡	44.64	6.45	34.21	‡	38.89	42.50	‡	25.00	33.87
Median effect size	0.19	‡	0.15	0.15	0.21	‡	0.26	0.53	‡	0.37	0.39
QTASOCLTIPEDS (Transcript: IPEDS ID of most recent known associate's degree received)											
Mean percent relative bias across characteristics	30.19	‡	23.74	11.17	21.37	‡	22.83	53.21	‡	60.52	43.86
Median percent relative bias across characteristics	21.47	‡	17.82	8.77	15.47	‡	16.45	44.86	‡	32.88	34.13
Percentage of characteristics with significant bias	59.72	‡	46.43	6.45	34.21	‡	38.89	43.59	‡	25.00	33.87
Median effect size	0.19	‡	0.14	0.15	0.20	‡	0.25	0.53	‡	0.37	0.39
QTATT1STSC (Transcript: First known institution attended: known credits attempted)											
Mean percent relative bias across characteristics	8.09	10.36	5.36	2.09	2.66	14.34	3.98	3.51	18.14	16.79	12.31
Median percent relative bias across characteristics	4.38	4.74	3.65	1.35	1.16	9.76	2.04	1.57	12.50	9.42	7.48
Percentage of characteristics with significant bias	53.42	#	35.71	3.13	11.36	#	13.51	9.30	13.04	15.25	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.14	0.15	0.07
QTATTLSC (Transcript: Last known institution attended: known credits attempted)											
Mean percent relative bias across characteristics	7.88	11.01	5.33	2.40	2.53	14.19	3.79	3.64	19.48	17.24	11.87
Median percent relative bias across characteristics	4.52	3.84	3.70	1.58	1.02	9.84	2.33	1.29	12.05	10.81	8.30
Percentage of characteristics with significant bias	53.42	#	33.33	8.82	6.12	2.56	7.69	9.09	10.64	20.00	17.74
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.02	0.13	0.14	0.06

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTAY1112GPA (Transcript: Academic year 2011–2012: GPA)											
Mean percent relative bias across characteristics	9.69	16.63	7.13	2.45	2.81	25.38	4.82	3.67	28.46	20.58	15.27
Median percent relative bias across characteristics	5.15	11.89	4.47	1.59	1.20	22.01	2.65	1.64	13.69	12.69	9.68
Percentage of characteristics with significant bias	65.28	#	35.71	6.45	7.50	2.63	13.89	9.30	6.82	14.04	14.52
Median effect size	0.05	0.20	0.05	0.03	0.01	0.25	0.04	0.03	0.16	0.16	0.08
QTBACC1IPEDS (Transcript: IPEDS ID of first known bachelor's degree received)											
Mean percent relative bias across characteristics	25.90	‡	34.15	8.63	3.04	‡	6.37	4.31	‡	‡	48.67
Median percent relative bias across characteristics	16.43	‡	22.29	7.91	1.40	‡	2.78	2.18	‡	‡	32.98
Percentage of characteristics with significant bias	80.28	‡	43.64	38.71	7.89	‡	19.44	7.69	‡	‡	33.87
Median effect size	0.19	‡	0.28	0.13	0.03	‡	0.07	0.04	‡	‡	0.37
QTBACCLTIPEDS (Transcript: IPEDS ID of most recent known bachelor's degree received)											
Mean percent relative bias across characteristics	25.90	‡	34.15	8.63	3.04	‡	6.37	4.31	‡	‡	48.67
Median percent relative bias across characteristics	16.43	‡	22.29	7.91	1.40	‡	2.78	2.18	‡	‡	32.98
Percentage of characteristics with significant bias	80.28	‡	43.64	38.71	7.89	‡	19.44	7.69	‡	‡	33.87
Median effect size	0.19	‡	0.28	0.13	0.03	‡	0.07	0.04	‡	‡	0.37
QTBACH1DT (Transcript: Date of first known bachelor's degree received)											
Mean percent relative bias across characteristics	25.91	‡	34.28	7.97	3.12	‡	6.37	4.28	‡	‡	48.65
Median percent relative bias across characteristics	17.05	‡	22.02	7.66	1.48	‡	2.78	2.14	‡	‡	33.40
Percentage of characteristics with significant bias	78.87	‡	43.64	19.35	7.89	‡	19.44	7.69	‡	‡	33.87
Median effect size	0.18	‡	0.28	0.13	0.03	‡	0.07	0.04	‡	‡	0.37

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTBACHLTDT (Transcript: Date of most recent known bachelor's degree received)											
Mean percent relative bias across characteristics	25.91	‡	34.28	7.97	3.12	‡	6.37	4.28	‡	‡	48.65
Median percent relative bias across characteristics	17.05	‡	22.02	7.66	1.48	‡	2.78	2.14	‡	‡	33.40
Percentage of characteristics with significant bias	78.87	‡	43.64	19.35	7.89	‡	19.44	7.69	‡	‡	33.87
Median effect size	0.18	‡	0.28	0.13	0.03	‡	0.07	0.04	‡	‡	0.37
QTBUSATT (Transcript: Business: known credits attempted)											
Mean percent relative bias across characteristics	15.38	‡	13.61	4.58	5.26	39.46	8.75	6.00	45.37	36.36	20.21
Median percent relative bias across characteristics	10.21	‡	8.25	2.07	2.39	29.66	4.95	3.14	40.81	28.91	14.66
Percentage of characteristics with significant bias	63.89	‡	35.71	6.45	7.50	23.08	30.56	9.30	48.84	25.00	27.42
Median effect size	0.10	‡	0.08	0.07	0.02	0.42	0.08	0.05	0.29	0.38	0.14
QTBUSERN (Transcript: Business: known credits earned)											
Mean percent relative bias across characteristics	15.35	‡	13.58	4.58	5.25	39.46	8.75	6.02	45.37	36.46	20.21
Median percent relative bias across characteristics	10.13	‡	8.30	2.07	2.39	29.66	4.95	3.25	40.81	29.26	14.66
Percentage of characteristics with significant bias	63.89	‡	35.71	6.45	7.50	23.08	30.56	9.30	48.84	25.00	27.42
Median effect size	0.10	‡	0.08	0.07	0.02	0.42	0.08	0.05	0.29	0.37	0.14
QTCERT1DT (Transcript: Date of first known undergraduate certificate/diploma)											
Mean percent relative bias across characteristics	26.19	15.02	28.95	23.63	15.53	33.66	28.42	37.24	20.44	28.62	45.22
Median percent relative bias across characteristics	17.92	9.19	18.19	16.13	12.27	21.35	24.84	29.02	14.37	18.02	17.78
Percentage of characteristics with significant bias	41.67	#	44.64	9.68	2.63	5.26	16.67	18.92	6.98	17.54	17.74
Median effect size	0.15	0.22	0.24	0.41	0.17	0.32	0.33	0.52	0.18	0.21	0.19

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTCERT1IPEDS (Transcript: IPEDS ID of first known undergraduate certificate/diploma)											
Mean percent relative bias across characteristics	26.08	15.02	28.63	23.63	15.34	33.66	28.37	37.24	20.67	28.41	45.28
Median percent relative bias across characteristics	17.71	9.19	18.29	16.13	12.33	21.35	24.92	29.02	15.98	17.63	15.55
Percentage of characteristics with significant bias	41.67	#	44.64	9.68	5.26	5.26	16.67	18.92	6.98	17.54	17.74
Median effect size	0.15	0.22	0.24	0.41	0.17	0.32	0.33	0.52	0.18	0.21	0.18
QTCERTLTDT (Transcript: Date of most recent known undergraduate certificate/diploma)											
Mean percent relative bias across characteristics	26.19	15.02	28.95	23.63	15.53	33.66	28.42	37.24	20.44	28.62	45.22
Median percent relative bias across characteristics	17.92	9.19	18.19	16.13	12.27	21.35	24.84	29.02	14.37	18.02	17.78
Percentage of characteristics with significant bias	41.67	#	44.64	9.68	2.63	5.26	16.67	18.92	6.98	17.54	17.74
Median effect size	0.15	0.22	0.24	0.41	0.17	0.32	0.33	0.52	0.18	0.21	0.19
QTCERTLTIPEDS (Transcript: IPEDS ID of most recent known undergraduate certificate/diploma)											
Mean percent relative bias across characteristics	26.08	15.02	28.63	23.63	15.34	33.66	28.37	37.24	20.67	28.41	45.28
Median percent relative bias across characteristics	17.71	9.19	18.29	16.13	12.33	21.35	24.92	29.02	15.98	17.63	15.55
Percentage of characteristics with significant bias	41.67	#	44.64	9.68	5.26	5.26	16.67	18.92	6.98	17.54	17.74
Median effect size	0.15	0.22	0.24	0.41	0.17	0.32	0.33	0.52	0.18	0.21	0.18
QTCTEASOC (Transcript: Any known associate's degree received in CTE field)											
Mean percent relative bias across characteristics	30.19	‡	23.74	11.17	21.37	‡	22.83	53.21	‡	60.52	43.86
Median percent relative bias across characteristics	21.47	‡	17.82	8.77	15.47	‡	16.45	44.86	‡	32.88	34.13
Percentage of characteristics with significant bias	59.72	‡	46.43	6.45	34.21	‡	38.89	43.59	‡	25.00	33.87
Median effect size	0.19	‡	0.14	0.15	0.20	‡	0.25	0.53	‡	0.37	0.39

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTCTEBACC (Transcript: Any known bachelor's degree received in CTE field)											
Mean percent relative bias across characteristics	25.90	‡	34.15	8.63	3.04	‡	6.37	4.31	‡	‡	48.67
Median percent relative bias across characteristics	16.43	‡	22.29	7.91	1.40	‡	2.78	2.18	‡	‡	32.98
Percentage of characteristics with significant bias	80.28	‡	43.64	38.71	7.89	‡	19.44	7.69	‡	‡	33.87
Median effect size	0.19	‡	0.28	0.13	0.03	‡	0.07	0.04	‡	‡	0.37
QTCTECERT (Transcript: Any known undergraduate certificate/diploma received in CTE field)											
Mean percent relative bias across characteristics	26.08	15.02	28.63	23.63	15.34	33.66	28.37	37.24	20.67	28.41	45.28
Median percent relative bias across characteristics	17.71	9.19	18.29	16.13	12.33	21.35	24.92	29.02	15.98	17.63	15.55
Percentage of characteristics with significant bias	41.67	#	44.64	9.68	5.26	5.26	16.67	18.92	6.98	17.54	17.74
Median effect size	0.15	0.22	0.24	0.41	0.17	0.32	0.33	0.52	0.18	0.21	0.18
QTCTEGPA (Transcript: Career and technical education (CTE): GPA)											
Mean percent relative bias across characteristics	13.28	14.64	7.38	12.80	10.81	18.20	15.82	20.90	24.52	17.40	31.57
Median percent relative bias across characteristics	8.19	9.87	5.63	11.64	7.72	12.47	11.37	16.22	19.10	10.30	20.52
Percentage of characteristics with significant bias	55.56	5.56	32.14	29.03	29.27	5.13	40.00	38.10	6.82	12.28	24.59
Median effect size	0.07	0.18	0.05	0.20	0.08	0.27	0.16	0.20	0.20	0.17	0.22
QTCTEMIN (Transcript: Any known minor for bachelor's degree received in CTE field)											
Mean percent relative bias across characteristics	25.90	‡	34.15	8.63	3.04	‡	6.37	4.31	‡	‡	48.67
Median percent relative bias across characteristics	16.43	‡	22.29	7.91	1.40	‡	2.78	2.18	‡	‡	32.98
Percentage of characteristics with significant bias	80.28	‡	43.64	38.71	7.89	‡	19.44	7.69	‡	‡	33.87
Median effect size	0.19	‡	0.28	0.13	0.03	‡	0.07	0.04	‡	‡	0.37

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTDEPINC (Base year: Dependent students' parents' income in 2012)											
Mean percent relative bias across characteristics	18.19	21.37	10.10	7.01	4.75	41.00	6.88	5.82	24.61	26.60	45.77
Median percent relative bias across characteristics	12.33	12.52	6.29	5.49	2.97	40.58	4.68	4.47	14.94	18.61	26.38
Percentage of characteristics with significant bias	87.32	4.76	50.91	54.35	41.67	27.50	51.11	36.73	16.67	16.39	45.00
Median effect size	0.12	0.20	0.10	0.07	0.05	0.53	0.05	0.05	0.18	0.17	0.24
QTENGRATT (Transcript: All engineering: known credits attempted)											
Mean percent relative bias across characteristics	39.48	‡	35.76	18.19	12.04	‡	21.29	17.65	‡	‡	57.25
Median percent relative bias across characteristics	29.89	‡	19.60	12.74	3.75	‡	14.45	10.81	‡	‡	35.75
Percentage of characteristics with significant bias	65.28	‡	39.29	12.90	5.00	‡	16.67	13.95	‡	‡	27.87
Median effect size	0.29	‡	0.24	0.24	0.09	‡	0.20	0.17	‡	‡	0.55
QTENGRERN (Transcript: All engineering: known credits earned)											
Mean percent relative bias across characteristics	39.55	‡	36.15	18.19	12.04	‡	21.30	17.65	‡	‡	57.25
Median percent relative bias across characteristics	29.92	‡	20.24	12.74	3.75	‡	14.55	10.81	‡	‡	35.75
Percentage of characteristics with significant bias	65.28	‡	39.29	12.90	5.00	‡	16.67	13.95	‡	‡	27.87
Median effect size	0.29	‡	0.26	0.24	0.09	‡	0.20	0.17	‡	‡	0.55
QTENRATT (Transcript: Combined known enrollment and attainment as of June 2017)											
Mean percent relative bias across characteristics	8.24	10.07	5.84	2.18	1.79	14.45	3.31	3.35	17.58	17.36	12.35
Median percent relative bias across characteristics	4.56	3.80	3.55	1.45	0.95	8.44	2.03	1.60	12.33	8.81	8.18
Percentage of characteristics with significant bias	60.27	#	35.71	6.45	10.00	#	16.67	9.30	13.04	15.00	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.26	0.03	0.03	0.14	0.12	0.06

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTENROLLST (Transcript: Month-by-month known enrollment indicator string [January 2011–June 2017])											
Mean percent relative bias across characteristics	8.33	10.07	5.77	2.12	1.59	14.45	3.19	3.18	17.24	17.33	12.18
Median percent relative bias across characteristics	4.51	3.80	3.69	1.35	0.89	8.44	1.70	1.52	11.95	8.84	7.99
Percentage of characteristics with significant bias	60.27	#	35.71	6.45	5.26	#	11.11	9.52	13.33	15.00	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.26	0.03	0.02	0.13	0.12	0.06
QTERN1STSC (Transcript: First known institution attended: known credits earned)											
Mean percent relative bias across characteristics	8.15	10.36	5.41	2.01	2.74	14.34	3.98	3.51	18.38	16.58	12.28
Median percent relative bias across characteristics	4.38	4.74	3.58	1.23	1.29	9.76	2.04	1.54	12.11	8.46	7.43
Percentage of characteristics with significant bias	53.42	#	37.50	3.13	11.63	#	13.51	9.30	10.87	13.79	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.14	0.15	0.07
QTERNLSC (Transcript: Last known institution attended: known credits earned)											
Mean percent relative bias across characteristics	8.01	11.01	5.30	2.26	2.54	14.23	3.83	3.73	18.88	16.77	11.88
Median percent relative bias across characteristics	4.58	3.84	3.63	1.54	1.12	9.55	2.27	1.31	11.79	6.82	8.26
Percentage of characteristics with significant bias	56.16	#	33.33	5.88	6.12	#	7.69	11.63	12.50	18.64	17.74
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.14	0.14	0.06
QTEVTRANSFER (Transcript: Ever known transfer)											
Mean percent relative bias across characteristics	8.05	10.07	5.81	2.09	2.65	14.45	3.62	3.53	17.47	17.45	12.28
Median percent relative bias across characteristics	4.33	3.80	3.83	1.34	1.14	8.44	1.56	1.63	12.65	9.37	7.87
Percentage of characteristics with significant bias	54.79	#	35.71	6.25	11.36	#	5.56	9.30	11.11	15.00	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.26	0.03	0.03	0.13	0.13	0.06

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTFLATT (Transcript: Foreign language: known credits attempted)											
Mean percent relative bias across characteristics	23.32	‡	20.42	6.29	5.16	39.72	9.39	5.08	51.75	73.56	47.94
Median percent relative bias across characteristics	15.75	‡	13.31	4.21	1.87	27.62	5.67	2.25	31.39	38.00	32.71
Percentage of characteristics with significant bias	73.61	‡	37.50	12.90	5.00	18.92	16.67	6.98	12.20	17.86	29.03
Median effect size	0.15	‡	0.13	0.08	0.03	0.43	0.08	0.04	0.40	0.49	0.40
QTFLERN (Transcript: Foreign language: known credits earned)											
Mean percent relative bias across characteristics	23.32	‡	20.42	6.29	5.16	39.72	9.39	5.07	51.75	73.56	47.94
Median percent relative bias across characteristics	15.78	‡	13.27	4.21	1.87	27.62	5.67	2.22	31.39	38.00	32.71
Percentage of characteristics with significant bias	73.61	‡	37.50	12.90	5.00	18.92	16.67	6.98	12.20	17.86	29.03
Median effect size	0.15	‡	0.13	0.08	0.03	0.43	0.08	0.04	0.40	0.49	0.40
QTFTDESTIPEDS (Transcript: First transfer: IPEDS ID of destination institution)											
Mean percent relative bias across characteristics	20.63	30.82	17.15	6.53	6.45	45.02	8.25	11.20	45.84	51.65	41.23
Median percent relative bias across characteristics	13.11	14.40	11.08	5.55	3.29	43.65	4.81	6.08	37.02	27.77	29.46
Percentage of characteristics with significant bias	61.11	14.29	41.82	16.13	13.95	18.92	37.14	7.14	15.91	23.73	24.59
Median effect size	0.14	0.32	0.11	0.11	0.05	0.81	0.09	0.11	0.44	0.35	0.35
QTFTDESTMY (Transcript: First transfer: first date of enrollment at destination institution)											
Mean percent relative bias across characteristics	20.63	30.82	17.15	6.53	6.45	45.02	8.25	11.20	45.84	51.65	41.23
Median percent relative bias across characteristics	13.11	14.40	11.08	5.55	3.29	43.65	4.81	6.08	37.02	27.77	29.46
Percentage of characteristics with significant bias	61.11	14.29	41.82	16.13	13.95	18.92	37.14	7.14	15.91	23.73	24.59
Median effect size	0.14	0.32	0.11	0.11	0.05	0.81	0.09	0.11	0.44	0.35	0.35

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTFTDESTTRAN (Transcript: First transfer: total credits transferred from the origin institution to the destination institution)											
Mean percent relative bias across characteristics	20.63	30.82	17.15	6.53	6.45	45.02	8.25	11.20	45.84	51.65	41.23
Median percent relative bias across characteristics	13.11	14.40	11.08	5.55	3.29	43.65	4.81	6.08	37.02	27.77	29.46
Percentage of characteristics with significant bias	61.11	14.29	41.82	16.13	13.95	18.92	37.14	7.14	15.91	23.73	24.59
Median effect size	0.14	0.32	0.11	0.11	0.05	0.81	0.09	0.11	0.44	0.35	0.35
QTFTORIGERN (Transcript: First transfer: Total credits earned at origin institution)											
Mean percent relative bias across characteristics	20.73	30.82	17.25	6.53	6.45	45.02	8.50	11.20	46.24	51.92	41.25
Median percent relative bias across characteristics	13.12	14.40	11.23	5.55	3.29	43.65	5.27	6.08	36.55	27.46	29.51
Percentage of characteristics with significant bias	61.11	14.29	43.64	16.13	13.95	18.92	37.14	7.14	15.91	23.73	24.59
Median effect size	0.14	0.32	0.11	0.11	0.05	0.81	0.09	0.11	0.48	0.35	0.35
QTFTORIGIPEDS (Transcript: First transfer: IPEDS ID of origin institution)											
Mean percent relative bias across characteristics	20.63	30.82	17.15	6.53	6.45	45.02	8.25	11.20	45.84	51.65	41.23
Median percent relative bias across characteristics	13.11	14.40	11.08	5.55	3.29	43.65	4.81	6.08	37.02	27.77	29.46
Percentage of characteristics with significant bias	61.11	14.29	41.82	16.13	13.95	18.92	37.14	7.14	15.91	23.73	24.59
Median effect size	0.14	0.32	0.11	0.11	0.05	0.81	0.09	0.11	0.44	0.35	0.35
QTFTORIGMY (Transcript: First transfer: last date of enrollment at origin institution)											
Mean percent relative bias across characteristics	20.63	30.82	17.15	6.53	6.45	45.02	8.25	11.20	45.84	51.65	41.23
Median percent relative bias across characteristics	13.11	14.40	11.08	5.55	3.29	43.65	4.81	6.08	37.02	27.77	29.46
Percentage of characteristics with significant bias	61.11	14.29	41.82	16.13	13.95	18.92	37.14	7.14	15.91	23.73	24.59
Median effect size	0.14	0.32	0.11	0.11	0.05	0.81	0.09	0.11	0.44	0.35	0.35

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTGPA1STSC (Transcript: First known institution attended: GPA)											
Mean percent relative bias across characteristics	9.14	16.77	6.08	2.14	2.70	15.44	4.11	3.52	24.94	17.62	12.91
Median percent relative bias across characteristics	4.98	12.28	3.96	1.39	1.27	10.85	2.29	1.56	15.85	8.13	8.73
Percentage of characteristics with significant bias	60.27	5.00	37.50	3.13	11.11	2.56	13.51	9.30	8.51	18.64	19.35
Median effect size	0.05	0.18	0.05	0.03	0.01	0.25	0.04	0.02	0.18	0.16	0.08
QTGPAALL (Transcript: GPA at all known institutions attended)											
Mean percent relative bias across characteristics	7.51	8.32	5.90	2.22	2.55	15.73	4.05	3.19	22.73	14.81	12.22
Median percent relative bias across characteristics	4.05	3.89	3.49	1.40	1.31	11.71	2.19	1.41	18.05	8.49	7.35
Percentage of characteristics with significant bias	63.89	6.67	32.14	6.45	7.32	2.56	13.89	9.30	23.26	10.53	16.13
Median effect size	0.05	0.11	0.04	0.02	0.01	0.24	0.03	0.03	0.12	0.15	0.07
QTGPALSC (Transcript: Last known institution attended: GPA)											
Mean percent relative bias across characteristics	8.88	16.76	6.00	2.45	2.69	15.59	3.85	3.67	24.04	18.41	12.51
Median percent relative bias across characteristics	4.49	15.30	3.92	1.76	1.23	10.91	2.43	1.32	15.46	9.36	8.91
Percentage of characteristics with significant bias	58.90	#	35.09	5.88	8.00	2.56	12.20	9.09	10.20	20.00	17.74
Median effect size	0.05	0.18	0.05	0.03	0.02	0.25	0.03	0.02	0.20	0.16	0.07
QTHCMATHHI (Base year: Highest level of high school mathematics)											
Mean percent relative bias across characteristics	12.75	10.48	10.83	7.06	4.57	25.15	7.29	7.12	19.84	18.26	15.89
Median percent relative bias across characteristics	8.38	6.78	7.16	4.46	2.70	18.35	3.25	3.68	19.74	12.46	6.19
Percentage of characteristics with significant bias	75.34	#	59.65	48.72	41.86	12.82	45.45	27.66	23.91	11.48	24.19
Median effect size	0.06	0.10	0.09	0.05	0.04	0.35	0.04	0.04	0.17	0.15	0.09

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTHS2PS1 (Transcript: Number of months between HS exit and postsecondary entry)											
Mean percent relative bias across characteristics	9.55	10.91	7.57	3.36	3.34	16.11	3.88	3.90	19.52	20.43	13.09
Median percent relative bias across characteristics	4.52	3.32	5.39	2.96	1.58	11.83	1.93	1.82	13.57	12.25	8.84
Percentage of characteristics with significant bias	67.12	#	57.14	18.18	26.67	2.56	7.69	9.30	14.89	22.95	20.97
Median effect size	0.06	0.11	0.06	0.04	0.02	0.26	0.03	0.03	0.15	0.12	0.09
QTHSGPA (Base year: Grade point average in high school)											
Mean percent relative bias across characteristics	12.75	10.48	10.83	7.06	4.57	25.15	7.29	7.12	19.84	18.26	15.89
Median percent relative bias across characteristics	8.38	6.78	7.16	4.46	2.70	18.35	3.25	3.68	19.74	12.46	6.19
Percentage of characteristics with significant bias	75.34	#	59.65	48.72	41.86	12.82	45.45	27.66	23.91	11.48	24.19
Median effect size	0.06	0.10	0.09	0.05	0.04	0.35	0.04	0.04	0.17	0.15	0.09
QTHSTYPE (Base year: Type of high school attended)											
Mean percent relative bias across characteristics	13.09	9.76	10.15	6.30	4.52	28.69	7.87	6.83	18.06	18.36	12.61
Median percent relative bias across characteristics	8.78	5.80	7.60	4.60	3.03	22.65	4.23	3.64	15.19	11.34	8.48
Percentage of characteristics with significant bias	79.45	#	57.89	45.24	43.18	14.63	46.67	33.33	22.92	14.52	17.74
Median effect size	0.07	0.16	0.08	0.06	0.04	0.35	0.05	0.04	0.17	0.13	0.10
QTIPEDS1STSC (Transcript: First known institution attended: IPEDS ID)											
Mean percent relative bias across characteristics	7.88	10.41	5.36	2.08	2.70	14.96	3.62	3.52	17.44	16.66	12.31
Median percent relative bias across characteristics	4.18	4.97	3.53	1.28	1.18	10.61	1.60	1.60	12.45	8.58	7.55
Percentage of characteristics with significant bias	54.79	#	33.93	6.25	11.90	5.13	5.56	11.63	13.33	15.52	17.74
Median effect size	0.05	0.11	0.04	0.03	0.01	0.25	0.03	0.03	0.14	0.15	0.07

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTIPEDSLSC (Transcript: Last known institution attended: IPEDS ID)											
Mean percent relative bias across characteristics	7.88	10.41	5.36	2.08	2.70	14.96	3.62	3.52	17.44	16.66	12.31
Median percent relative bias across characteristics	4.18	4.97	3.53	1.28	1.18	10.61	1.60	1.60	12.45	8.58	7.55
Percentage of characteristics with significant bias	54.79	#	33.93	6.25	11.90	5.13	5.56	11.63	13.33	15.52	17.74
Median effect size	0.05	0.11	0.04	0.03	0.01	0.25	0.03	0.03	0.14	0.15	0.07
QTLASTENR17 (Transcript: Spring 2017 enrollment)											
Mean percent relative bias across characteristics	8.33	10.07	5.77	2.12	1.59	14.45	3.19	3.18	17.24	17.33	12.18
Median percent relative bias across characteristics	4.51	3.80	3.69	1.35	0.89	8.44	1.70	1.52	11.95	8.84	7.99
Percentage of characteristics with significant bias	60.27	#	35.71	6.45	5.26	#	11.11	9.52	13.33	15.00	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.26	0.03	0.02	0.13	0.12	0.06
QTMONENROL (Transcript: Total known months enrolled)											
Mean percent relative bias across characteristics	8.12	10.07	5.79	2.10	2.67	14.45	3.67	3.21	17.38	17.33	12.18
Median percent relative bias across characteristics	4.48	3.80	3.58	1.30	1.23	8.44	1.88	1.30	11.91	8.87	7.92
Percentage of characteristics with significant bias	57.53	#	35.71	3.13	9.52	#	13.89	9.30	13.33	15.00	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.26	0.03	0.03	0.13	0.12	0.06
QTNRSATT (Transcript: Nursing: known credits attempted)											
Mean percent relative bias across characteristics	41.00	‡	47.78	23.78	18.02	‡	28.23	38.40	44.28	64.50	62.18
Median percent relative bias across characteristics	28.76	‡	30.30	25.01	15.73	‡	20.48	27.42	22.11	36.61	40.99
Percentage of characteristics with significant bias	61.11	‡	55.36	38.71	10.00	‡	19.44	20.93	18.42	18.00	21.31
Median effect size	0.26	‡	0.30	0.33	0.17	‡	0.29	0.29	0.49	0.55	0.34

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTNRSERN (Transcript: Nursing: known credits earned)											
Mean percent relative bias across characteristics	40.99	‡	47.78	23.78	17.96	‡	28.23	38.40	44.28	64.50	62.25
Median percent relative bias across characteristics	28.56	‡	30.30	25.01	15.53	‡	20.48	27.42	22.11	36.61	41.18
Percentage of characteristics with significant bias	61.11	‡	55.36	38.71	10.00	‡	19.44	20.93	18.42	18.00	24.59
Median effect size	0.26	‡	0.30	0.33	0.17	‡	0.29	0.29	0.49	0.55	0.34
QTOVRLAP (Transcript: Co-enrollment at 2 or more institutions)											
Mean percent relative bias across characteristics	11.06	18.65	14.87	12.62	6.64	22.01	8.15	9.97	32.83	27.55	18.50
Median percent relative bias across characteristics	5.99	12.31	11.98	10.07	4.37	14.04	5.68	7.59	27.84	20.15	15.21
Percentage of characteristics with significant bias	30.14	5.56	40.00	19.23	14.29	7.14	5.36	5.36	6.38	26.23	19.67
Median effect size	0.08	0.23	0.09	0.14	0.05	0.27	0.06	0.08	0.15	0.21	0.15
QTPFPATT (Transcript: Private for-profit institutions: known credits attempted)											
Mean percent relative bias across characteristics	38.26	‡	50.83	19.05	28.36	‡	31.58	62.51	38.72	16.81	13.71
Median percent relative bias across characteristics	35.03	‡	30.27	15.95	22.65	‡	26.11	51.17	34.66	9.59	9.82
Percentage of characteristics with significant bias	58.33	‡	43.64	20.00	22.50	‡	30.30	33.33	44.19	14.04	19.35
Median effect size	0.26	‡	0.24	0.36	0.34	‡	0.44	0.52	0.26	0.14	0.07
QTPFPERN (Transcript: Private for-profit institutions: known credits earned)											
Mean percent relative bias across characteristics	38.27	‡	50.86	19.05	28.36	‡	31.58	62.51	38.72	16.68	13.71
Median percent relative bias across characteristics	35.01	‡	30.34	15.95	22.65	‡	26.11	51.17	34.66	9.43	9.83
Percentage of characteristics with significant bias	58.33	‡	43.64	20.00	22.50	‡	30.30	33.33	44.19	12.28	19.35
Median effect size	0.26	‡	0.24	0.36	0.34	‡	0.44	0.52	0.26	0.14	0.07

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTPS1INSTCAT2 (Postsecondary Transcript: Institutional category and control of first known postsecondary institution)											
Mean percent relative bias across characteristics	7.89	10.41	5.36	2.08	2.70	14.96	3.62	3.52	17.44	16.74	12.31
Median percent relative bias across characteristics	4.19	4.97	3.53	1.28	1.18	10.61	1.60	1.60	12.45	8.37	7.55
Percentage of characteristics with significant bias	54.79	#	33.93	6.25	11.90	5.13	5.56	11.63	13.33	13.79	17.74
Median effect size	0.05	0.11	0.04	0.03	0.01	0.25	0.03	0.03	0.14	0.15	0.07
QTPS1LEV (Transcript: Level of first known postsecondary institution)											
Mean percent relative bias across characteristics	7.88	10.41	5.36	2.08	2.70	14.96	3.62	3.52	17.44	16.66	12.31
Median percent relative bias across characteristics	4.18	4.97	3.53	1.28	1.18	10.61	1.60	1.60	12.45	8.58	7.55
Percentage of characteristics with significant bias	54.79	#	33.93	6.25	11.90	5.13	5.56	11.63	13.33	15.52	17.74
Median effect size	0.05	0.11	0.04	0.03	0.01	0.25	0.03	0.03	0.14	0.15	0.07
QTPS1SEC (Transcript: Sector of first known postsecondary institution)											
Mean percent relative bias across characteristics	7.88	10.41	5.36	2.08	2.70	14.96	3.62	3.52	17.44	16.66	12.31
Median percent relative bias across characteristics	4.18	4.97	3.53	1.28	1.18	10.61	1.60	1.60	12.45	8.58	7.55
Percentage of characteristics with significant bias	54.79	#	33.93	6.25	11.90	5.13	5.56	11.63	13.33	15.52	17.74
Median effect size	0.05	0.11	0.04	0.03	0.01	0.25	0.03	0.03	0.14	0.15	0.07
QTPS1SLC (Transcript: Institutional selectivity of first known postsecondary institution)											
Mean percent relative bias across characteristics	7.88	10.41	5.36	2.08	2.70	14.96	3.62	3.52	17.44	16.66	12.31
Median percent relative bias across characteristics	4.18	4.97	3.53	1.28	1.18	10.61	1.60	1.60	12.45	8.58	7.55
Percentage of characteristics with significant bias	54.79	#	33.93	6.25	11.90	5.13	5.56	11.63	13.33	15.52	17.74
Median effect size	0.05	0.11	0.04	0.03	0.01	0.25	0.03	0.03	0.14	0.15	0.07

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTPS1START (Transcript: Date of first known postsecondary attendance after high school completion)											
Mean percent relative bias across characteristics	8.02	10.41	5.99	2.27	2.72	15.08	3.61	3.57	17.96	17.04	12.24
Median percent relative bias across characteristics	4.62	4.97	3.76	1.79	1.14	10.69	1.57	1.63	12.72	9.07	7.50
Percentage of characteristics with significant bias	57.53	#	37.50	6.25	11.90	5.13	5.56	11.63	15.56	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.25	0.03	0.03	0.13	0.12	0.06
QTPS2ASOC1 (Transcript: Number of months between known postsecondary start and first associate's degree)											
Mean percent relative bias across characteristics	30.43	‡	24.29	11.60	22.05	‡	23.59	52.65	‡	59.03	43.89
Median percent relative bias across characteristics	21.33	‡	17.83	10.39	16.39	‡	17.26	43.86	‡	29.02	33.85
Percentage of characteristics with significant bias	59.72	‡	44.64	6.45	34.21	‡	38.89	42.50	‡	25.00	33.87
Median effect size	0.19	‡	0.15	0.16	0.22	‡	0.26	0.53	‡	0.37	0.39
QTPS2BACC1 (Transcript: Number of months between known postsecondary start and first bachelor's degree)											
Mean percent relative bias across characteristics	25.99	‡	34.22	8.09	3.17	‡	6.37	4.31	‡	‡	51.58
Median percent relative bias across characteristics	17.26	‡	22.28	7.50	1.61	‡	2.78	2.14	‡	‡	35.74
Percentage of characteristics with significant bias	78.87	‡	43.64	29.03	7.89	‡	19.44	7.69	‡	‡	37.10
Median effect size	0.19	‡	0.28	0.12	0.03	‡	0.07	0.04	‡	‡	0.38

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTPS2CERT1 (Transcript: Number of months between known postsecondary start and first undergraduate certificate or diploma)											
Mean percent relative bias across characteristics	26.13	14.84	29.27	23.63	17.84	33.53	28.42	37.22	20.44	28.57	45.36
Median percent relative bias across characteristics	16.28	13.86	17.87	16.13	10.95	21.59	24.84	28.88	14.37	16.06	17.08
Percentage of characteristics with significant bias	36.99	#	44.64	9.68	15.79	5.26	16.67	18.92	6.98	24.14	17.74
Median effect size	0.17	0.22	0.25	0.41	0.18	0.29	0.33	0.52	0.18	0.23	0.19
QTREMENGPS (Transcript: Remedial English courses: known number passed)											
Mean percent relative bias across characteristics	22.48	‡	15.40	10.84	21.08	48.98	30.32	35.23	49.25	49.49	30.72
Median percent relative bias across characteristics	12.70	‡	9.80	8.74	15.64	45.00	25.50	21.00	53.05	37.27	16.86
Percentage of characteristics with significant bias	50.00	‡	37.50	3.23	27.50	7.69	50.00	18.60	29.27	31.58	24.19
Median effect size	0.12	‡	0.11	0.15	0.21	0.56	0.40	0.28	0.55	0.38	0.24
QTREMENTOT (Transcript: Remedial English courses: known number taken)											
Mean percent relative bias across characteristics	22.48	‡	15.40	10.84	21.08	48.98	30.32	35.23	49.25	49.49	30.72
Median percent relative bias across characteristics	12.70	‡	9.80	8.74	15.64	45.00	25.50	21.00	53.05	37.27	16.86
Percentage of characteristics with significant bias	50.00	‡	37.50	3.23	27.50	7.69	50.00	18.60	29.27	31.58	24.19
Median effect size	0.12	‡	0.11	0.15	0.21	0.56	0.40	0.28	0.55	0.38	0.24

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTST1YR1ENROLL (Transcript: First year STEM enrollment (using SMART Grant definition of STEM): enrolled)											
Mean percent relative bias across characteristics	8.10	10.07	6.03	2.26	2.72	14.46	3.61	3.57	18.36	16.98	12.23
Median percent relative bias across characteristics	4.52	3.80	3.78	1.75	1.14	9.54	1.54	1.64	12.40	9.30	7.47
Percentage of characteristics with significant bias	58.90	#	37.50	3.13	11.90	#	5.56	9.30	8.70	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.13	0.13	0.06
QTST2YR1ENROLL (Transcript: First year STEM enrollment (using NSF definition of STEM): enrolled)											
Mean percent relative bias across characteristics	8.10	10.07	6.03	2.26	2.72	14.46	3.61	3.57	18.36	16.98	12.23
Median percent relative bias across characteristics	4.52	3.80	3.78	1.75	1.14	9.54	1.54	1.64	12.40	9.30	7.47
Percentage of characteristics with significant bias	58.90	#	37.50	3.13	11.90	#	5.56	9.30	8.70	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.13	0.13	0.06
QTST3YR1ATT (Transcript: First year STEM enrollment (using NCES definition of STEM): known credits attempted)											
Mean percent relative bias across characteristics	11.24	10.95	8.21	2.73	3.08	26.83	4.73	5.20	26.57	26.14	18.13
Median percent relative bias across characteristics	5.83	5.96	5.29	2.12	1.33	19.86	2.61	2.41	13.66	16.73	11.43
Percentage of characteristics with significant bias	63.01	#	44.64	3.13	9.52	20.51	10.81	9.30	13.04	20.34	17.74
Median effect size	0.07	0.23	0.06	0.04	0.02	0.44	0.04	0.04	0.16	0.25	0.16
QTST3YR1ENROLL (Transcript: First year STEM enrollment (using NCES definition of STEM): enrolled)											
Mean percent relative bias across characteristics	8.10	10.07	6.03	2.26	2.72	14.46	3.61	3.57	18.36	16.98	12.23
Median percent relative bias across characteristics	4.52	3.80	3.78	1.75	1.14	9.54	1.54	1.64	12.40	9.30	7.47
Percentage of characteristics with significant bias	58.90	#	37.50	3.13	11.90	#	5.56	9.30	8.70	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.13	0.13	0.06

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTST3YR1ERN (Transcript: First year STEM enrollment (using NCES definition of STEM): known credits earned)											
Mean percent relative bias across characteristics	11.24	10.95	8.24	2.72	3.08	26.83	4.72	5.22	26.57	26.14	18.12
Median percent relative bias across characteristics	5.88	5.96	5.27	2.08	1.33	19.86	2.55	2.50	13.66	16.73	11.70
Percentage of characteristics with significant bias	61.64	#	44.64	3.13	9.52	20.51	10.81	9.30	13.04	20.34	17.74
Median effect size	0.07	0.23	0.06	0.04	0.02	0.44	0.04	0.05	0.16	0.25	0.16
QTST3YR1GPA (Transcript: First year STEM enrollment (using NCES definition of STEM): GPA)											
Mean percent relative bias across characteristics	12.44	15.81	9.15	3.17	3.26	30.41	5.25	5.45	34.01	28.13	20.19
Median percent relative bias across characteristics	6.38	9.95	5.16	2.68	1.34	21.94	2.96	2.67	21.78	20.35	13.28
Percentage of characteristics with significant bias	64.38	6.25	42.86	18.75	11.90	20.51	32.43	9.30	4.35	22.03	17.74
Median effect size	0.07	0.33	0.06	0.05	0.02	0.46	0.05	0.05	0.30	0.25	0.18
QTSTATATT (Transcript: Statistics courses in all departments: known credits attempted)											
Mean percent relative bias across characteristics	23.05	‡	22.07	5.75	4.30	‡	8.00	5.37	60.93	84.06	42.92
Median percent relative bias across characteristics	15.74	‡	15.45	5.00	1.61	‡	5.74	2.48	50.11	34.81	28.98
Percentage of characteristics with significant bias	75.00	‡	41.07	12.90	7.50	‡	13.89	9.30	27.50	19.61	24.19
Median effect size	0.16	‡	0.15	0.10	0.03	‡	0.07	0.04	0.76	0.67	0.35
QTSTATERN (Transcript: Statistics courses in all departments: known credits earned)											
Mean percent relative bias across characteristics	23.06	‡	22.07	5.75	4.31	‡	8.00	5.35	60.93	84.06	42.92
Median percent relative bias across characteristics	15.74	‡	15.46	5.00	1.61	‡	5.74	2.48	50.11	34.81	28.98
Percentage of characteristics with significant bias	75.00	‡	41.07	12.90	5.00	‡	13.89	9.30	27.50	19.61	24.19
Median effect size	0.16	‡	0.15	0.10	0.03	‡	0.07	0.04	0.76	0.67	0.35

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTSTEM3ASOC (Transcript: Any known associate's degree received in STEM field (using NCES definition of STEM))											
Mean percent relative bias across characteristics	30.19	‡	23.74	11.17	21.37	‡	22.83	53.21	‡	60.52	43.86
Median percent relative bias across characteristics	21.47	‡	17.82	8.77	15.47	‡	16.45	44.86	‡	32.88	34.13
Percentage of characteristics with significant bias	59.72	‡	46.43	6.45	34.21	‡	38.89	43.59	‡	25.00	33.87
Median effect size	0.19	‡	0.14	0.15	0.20	‡	0.25	0.53	‡	0.37	0.39
QTSTEM3BACC (Transcript: Any known bachelor's degree received in STEM field (using NCES definition of STEM))											
Mean percent relative bias across characteristics	25.90	‡	34.15	8.63	3.04	‡	6.37	4.31	‡	‡	48.67
Median percent relative bias across characteristics	16.43	‡	22.29	7.91	1.40	‡	2.78	2.18	‡	‡	32.98
Percentage of characteristics with significant bias	80.28	‡	43.64	38.71	7.89	‡	19.44	7.69	‡	‡	33.87
Median effect size	0.19	‡	0.28	0.13	0.03	‡	0.07	0.04	‡	‡	0.37
QTSTEM3CERT (Transcript: Any known undergraduate certificate/diploma received in STEM field (using NCES definition of STEM))											
Mean percent relative bias across characteristics	26.08	15.02	28.63	23.63	15.34	33.66	28.37	37.24	20.67	28.41	45.28
Median percent relative bias across characteristics	17.71	9.19	18.29	16.13	12.33	21.35	24.92	29.02	15.98	17.63	15.55
Percentage of characteristics with significant bias	41.67	#	44.64	9.68	5.26	5.26	16.67	18.92	6.98	17.54	17.74
Median effect size	0.15	0.22	0.24	0.41	0.17	0.32	0.33	0.52	0.18	0.21	0.18
QTSTEM3MIN (Transcript: Any known minor in STEM field (using NCES definition of STEM) if bachelor's degree received)											
Mean percent relative bias across characteristics	25.90	‡	34.15	8.63	3.04	‡	6.37	4.31	‡	‡	48.67
Median percent relative bias across characteristics	16.43	‡	22.29	7.91	1.40	‡	2.78	2.18	‡	‡	32.98
Percentage of characteristics with significant bias	80.28	‡	43.64	38.71	7.89	‡	19.44	7.69	‡	‡	33.87
Median effect size	0.19	‡	0.28	0.13	0.03	‡	0.07	0.04	‡	‡	0.37

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTSTOPGT4M (Transcript: Count of stopouts longer than 4 months)											
Mean percent relative bias across characteristics	14.87	11.11	14.87	15.61	15.37	20.59	15.01	11.37	26.07	18.59	18.05
Median percent relative bias across characteristics	11.36	4.41	8.03	8.67	8.35	14.50	8.21	6.66	16.35	11.58	14.79
Percentage of characteristics with significant bias	54.79	5.00	50.82	27.78	38.60	#	35.09	13.79	8.16	12.70	37.10
Median effect size	0.11	0.13	0.07	0.11	0.12	0.20	0.08	0.07	0.15	0.11	0.15
QTSUM1112ATT (Transcript: Summer 2011 and summer 2012: known credits attempted)											
Mean percent relative bias across characteristics	18.12	‡	18.76	6.71	8.56	‡	10.65	12.35	45.30	34.14	32.27
Median percent relative bias across characteristics	8.25	‡	14.41	2.96	3.28	‡	6.07	5.64	29.20	28.53	23.44
Percentage of characteristics with significant bias	48.61	‡	35.71	9.68	5.00	‡	8.33	6.98	29.27	26.32	38.71
Median effect size	0.12	‡	0.14	0.08	0.04	‡	0.10	0.12	0.38	0.25	0.21
QTSUM1112ERN (Transcript: Summer 2011 and summer 2012: known credits earned)											
Mean percent relative bias across characteristics	18.10	‡	18.76	6.71	8.55	‡	10.65	12.35	45.30	34.13	32.36
Median percent relative bias across characteristics	8.28	‡	14.20	2.96	3.09	‡	6.07	5.64	29.20	28.48	23.50
Percentage of characteristics with significant bias	48.61	‡	37.50	9.68	5.00	‡	8.33	6.98	29.27	26.32	38.71
Median effect size	0.12	‡	0.13	0.08	0.04	‡	0.10	0.12	0.38	0.25	0.21
QTSUM11ATT (Transcript: Summer 2011: known credits attempted)											
Mean percent relative bias across characteristics	33.58	‡	36.53	21.04	20.31	‡	20.23	37.98	62.93	56.13	37.02
Median percent relative bias across characteristics	16.55	‡	27.03	11.94	9.24	‡	14.10	29.95	40.16	39.36	25.58
Percentage of characteristics with significant bias	44.44	‡	30.36	9.68	5.00	‡	5.56	20.93	23.68	18.18	30.65
Median effect size	0.22	‡	0.22	0.28	0.14	‡	0.28	0.37	0.57	0.38	0.23

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTSUM11ERN (Transcript: Summer 2011: known credits earned)											
Mean percent relative bias across characteristics	33.58	‡	36.91	21.04	20.31	‡	20.23	37.98	62.93	56.13	37.02
Median percent relative bias across characteristics	17.25	‡	27.07	11.94	9.24	‡	14.10	29.95	40.16	39.36	25.58
Percentage of characteristics with significant bias	41.67	‡	30.36	9.68	5.00	‡	5.56	20.93	23.68	18.18	30.65
Median effect size	0.21	‡	0.23	0.28	0.14	‡	0.28	0.37	0.57	0.38	0.23
QTSUM12ATT (Transcript: Summer 2012: known credits attempted)											
Mean percent relative bias across characteristics	19.73	‡	20.38	7.31	8.97	‡	12.45	12.51	46.08	36.14	36.45
Median percent relative bias across characteristics	10.35	‡	16.71	3.03	3.15	‡	7.66	4.40	22.59	30.13	33.21
Percentage of characteristics with significant bias	50.00	‡	37.50	6.45	5.00	‡	8.33	6.98	27.50	32.14	46.77
Median effect size	0.15	‡	0.15	0.08	0.05	‡	0.12	0.12	0.32	0.30	0.27
QTSUM12ERN (Transcript: Summer 2012: known credits earned)											
Mean percent relative bias across characteristics	19.70	‡	20.35	7.31	8.96	‡	12.45	12.51	46.08	36.13	36.56
Median percent relative bias across characteristics	10.38	‡	16.66	3.03	3.12	‡	7.66	4.40	22.59	30.16	33.29
Percentage of characteristics with significant bias	50.00	‡	37.50	6.45	5.00	‡	8.33	6.98	27.50	32.14	46.77
Median effect size	0.15	‡	0.15	0.08	0.05	‡	0.12	0.12	0.32	0.30	0.27
QTSUM13ATT (Transcript: Summer 2013: known credits attempted)											
Mean percent relative bias across characteristics	25.79	‡	23.90	8.06	7.03	‡	12.75	10.35	56.61	63.59	43.55
Median percent relative bias across characteristics	18.00	‡	18.42	4.84	2.48	‡	8.97	4.26	54.53	52.47	45.73
Percentage of characteristics with significant bias	63.89	‡	50.00	6.45	7.50	‡	5.56	9.30	35.90	40.00	50.00
Median effect size	0.18	‡	0.18	0.10	0.04	‡	0.10	0.10	0.62	0.33	0.39

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTSUM13ERN (Transcript: Summer 2013: known credits earned)											
Mean percent relative bias across characteristics	25.85	‡	23.90	8.23	6.99	‡	12.89	10.45	56.61	63.59	43.69
Median percent relative bias across characteristics	17.83	‡	18.35	3.98	2.34	‡	9.06	4.29	54.53	52.47	45.74
Percentage of characteristics with significant bias	63.89	‡	48.21	6.45	7.50	‡	5.56	9.30	35.90	40.00	50.00
Median effect size	0.18	‡	0.18	0.11	0.04	‡	0.10	0.11	0.62	0.33	0.39
QTTESATDER (Base year: SAT-derived composite score)											
Mean percent relative bias across characteristics	18.57	19.27	12.63	9.28	4.87	29.10	7.39	7.98	19.39	19.02	19.12
Median percent relative bias across characteristics	13.53	18.77	9.34	5.09	3.13	29.62	4.51	4.88	11.66	11.22	9.17
Percentage of characteristics with significant bias	86.30	4.35	62.07	43.75	50.00	10.00	46.67	44.90	10.20	11.11	22.58
Median effect size	0.10	0.22	0.10	0.06	0.05	0.42	0.05	0.05	0.16	0.16	0.11
QTTESATMDE (Base year: SAT-derived math score)											
Mean percent relative bias across characteristics	18.57	19.27	12.63	9.28	4.87	29.10	7.39	7.98	19.39	19.02	19.12
Median percent relative bias across characteristics	13.53	18.77	9.34	5.09	3.13	29.62	4.51	4.88	11.66	11.22	9.17
Percentage of characteristics with significant bias	86.30	4.35	62.07	43.75	50.00	10.00	46.67	44.90	10.20	11.11	22.58
Median effect size	0.10	0.22	0.10	0.06	0.05	0.42	0.05	0.05	0.16	0.16	0.11
QTTESATVDE (Base year: SAT-derived verbal score)											
Mean percent relative bias across characteristics	18.57	19.27	12.63	9.28	4.87	29.10	7.39	7.98	19.39	19.02	19.12
Median percent relative bias across characteristics	13.53	18.77	9.34	5.09	3.13	29.62	4.51	4.88	11.66	11.22	9.17
Percentage of characteristics with significant bias	86.30	4.35	62.07	43.75	50.00	10.00	46.67	44.90	10.20	11.11	22.58
Median effect size	0.10	0.22	0.10	0.06	0.05	0.42	0.05	0.05	0.16	0.16	0.11

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTYR1ATT (Transcript: First-year enrollment: known credits attempted)											
Mean percent relative bias across characteristics	8.19	10.36	6.03	2.26	2.72	14.46	3.98	3.57	18.46	16.96	12.24
Median percent relative bias across characteristics	4.60	4.74	3.78	1.75	1.14	9.54	2.03	1.64	12.86	9.17	7.48
Percentage of characteristics with significant bias	58.90	#	37.50	3.13	11.90	#	13.51	9.30	10.87	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.13	0.12	0.06
QTYR1ERN (Transcript: First-year enrollment: known credits earned)											
Mean percent relative bias across characteristics	8.26	10.36	6.05	2.20	2.72	14.46	3.98	3.57	18.35	16.92	12.24
Median percent relative bias across characteristics	4.61	4.74	3.56	1.48	1.14	9.54	2.03	1.64	12.71	9.07	7.49
Percentage of characteristics with significant bias	58.90	#	37.50	6.25	11.90	#	13.51	9.30	6.52	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.14	0.12	0.06
QTYR1GPA (Transcript: First-year enrollment: GPA)											
Mean percent relative bias across characteristics	9.40	16.54	6.75	2.40	2.76	15.61	4.13	3.63	25.92	18.00	12.87
Median percent relative bias across characteristics	5.14	11.34	3.92	1.75	1.13	10.95	2.20	1.67	17.39	7.67	8.77
Percentage of characteristics with significant bias	63.01	5.00	37.50	6.25	11.63	5.13	13.51	9.30	4.26	18.64	19.35
Median effect size	0.05	0.24	0.05	0.03	0.01	0.25	0.04	0.03	0.18	0.12	0.07
QTYR2ATT (Transcript: Second-year enrollment: known credits attempted)											
Mean percent relative bias across characteristics	12.93	16.65	9.29	3.24	3.05	29.94	4.79	3.91	28.39	33.25	21.43
Median percent relative bias across characteristics	6.84	3.31	5.78	2.51	1.09	20.82	2.91	1.68	21.87	24.65	14.97
Percentage of characteristics with significant bias	67.12	6.67	35.71	15.63	11.90	28.21	10.81	9.30	17.39	28.81	25.81
Median effect size	0.08	0.21	0.06	0.05	0.02	0.54	0.04	0.03	0.30	0.25	0.20

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTYR2ENROLL (Transcript: Enrolled in 2nd 12 months)											
Mean percent relative bias across characteristics	8.10	10.07	6.03	2.26	2.72	14.46	3.61	3.57	18.36	16.98	12.23
Median percent relative bias across characteristics	4.52	3.80	3.78	1.75	1.14	9.54	1.54	1.64	12.40	9.30	7.47
Percentage of characteristics with significant bias	58.90	#	37.50	3.13	11.90	#	5.56	9.30	8.70	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.13	0.13	0.06
QTYR2ERN (Transcript: Second-year enrollment: known credits earned)											
Mean percent relative bias across characteristics	12.97	16.65	9.35	3.27	3.05	29.94	4.80	3.91	28.56	33.25	21.43
Median percent relative bias across characteristics	6.85	3.31	6.61	2.79	1.09	20.82	2.99	1.71	21.40	24.65	14.97
Percentage of characteristics with significant bias	67.12	6.67	35.71	15.63	11.90	28.21	10.81	9.30	21.74	28.81	25.81
Median effect size	0.08	0.21	0.06	0.05	0.02	0.54	0.04	0.03	0.30	0.25	0.20
QTYR2GPA (Transcript: Second-year enrollment: GPA)											
Mean percent relative bias across characteristics	13.58	19.22	10.07	3.48	3.08	30.06	4.86	3.91	32.49	34.26	22.40
Median percent relative bias across characteristics	7.13	13.99	6.45	3.44	1.18	20.15	3.00	1.64	28.94	22.63	16.15
Percentage of characteristics with significant bias	68.49	6.25	37.50	15.63	11.90	28.21	10.81	9.30	19.57	28.81	25.81
Median effect size	0.09	0.21	0.07	0.05	0.02	0.56	0.04	0.03	0.27	0.27	0.20
QTYR3ENROLL (Transcript: Enrolled in 3rd 12 months)											
Mean percent relative bias across characteristics	8.10	10.07	6.03	2.26	2.72	14.46	3.61	3.57	18.36	16.98	12.23
Median percent relative bias across characteristics	4.52	3.80	3.78	1.75	1.14	9.54	1.54	1.64	12.40	9.30	7.47
Percentage of characteristics with significant bias	58.90	#	37.50	3.13	11.90	#	5.56	9.30	8.70	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.13	0.13	0.06

See notes at end of table.

Table H-45. Summary of item nonresponse bias analysis for all students and by control and level of institution: 2012–17—Continued

Variable	Overall	Public less-than-2-year	Public 2-year	Public 4-year, non-doctorate granting	Public 4-year, doctorate-granting	Private nonprofit less-than-4-year	Private nonprofit 4-year, non-doctorate-granting	Private nonprofit 4-year, doctorate-granting	Private for-profit less-than-2-year	Private for-profit 2-year	Private for-profit 4-year
QTYR4ENROLL (Transcript: Enrolled in 4th 12 months)											
Mean percent relative bias across characteristics	8.10	10.07	6.03	2.26	2.72	14.46	3.61	3.57	18.36	16.98	12.23
Median percent relative bias across characteristics	4.52	3.80	3.78	1.75	1.14	9.54	1.54	1.64	12.40	9.30	7.47
Percentage of characteristics with significant bias	58.90	#	37.50	3.13	11.90	#	5.56	9.30	8.70	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.13	0.13	0.06
QTYR5ENROLL (Transcript: Enrolled in 5th 12 months)											
Mean percent relative bias across characteristics	8.10	10.07	6.03	2.26	2.72	14.46	3.61	3.57	18.36	16.98	12.23
Median percent relative bias across characteristics	4.52	3.80	3.78	1.75	1.14	9.54	1.54	1.64	12.40	9.30	7.47
Percentage of characteristics with significant bias	58.90	#	37.50	3.13	11.90	#	5.56	9.30	8.70	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.13	0.13	0.06
QTYR6ENROLL (Transcript: Enrolled in 6th 12 months)											
Mean percent relative bias across characteristics	8.10	10.07	6.03	2.26	2.72	14.46	3.61	3.57	18.36	16.98	12.23
Median percent relative bias across characteristics	4.52	3.80	3.78	1.75	1.14	9.54	1.54	1.64	12.40	9.30	7.47
Percentage of characteristics with significant bias	58.90	#	37.50	3.13	11.90	#	5.56	9.30	8.70	13.56	19.35
Median effect size	0.05	0.11	0.04	0.03	0.01	0.23	0.03	0.03	0.13	0.13	0.06

Rounds to zero.
‡ Reporting standards not met (fewer than 30 unweighted nonrespondents).
NOTE: CTE = career and technical education; GPA = grade point average; IPEDS = Integrated Postsecondary Education Data System identification number; NCES = National Center for Education Statistics; NSF = National Science Foundation; SMART = Science and Mathematics Access to Retain Talent; STEM = science, technology, engineering, and mathematics. Relative bias, significance, and effect size are calculated using the weighted differences between respondent and full-sample means. Relative bias is calculated as 100 times the ratio of estimated bias to the weighted full-sample mean. Effect size for categorical variables is calculated as the square root of the sum over categories of the squared differences over full-sample means. Variables and characteristics that did not meet reporting standards were excluded from calculation of summary statistics. Weighted response rates calculated using base weight adjusted for unknown eligibility.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2012 Beginning Postsecondary Students Longitudinal Study (BPS:12) Postsecondary Education Transcript Study (PETS).