

# Appendix A. Acronyms and Abbreviations

<b>Acronym/Abbreviation</b>	<b>Name</b>
B&B	Baccalaureate and Beyond Longitudinal Study
B&B:16/17	2016/17 Baccalaureate and Beyond Longitudinal Study
BPS	Beginning Postsecondary Students Longitudinal Study
BPS:12/17	2012/17 Beginning Postsecondary Students Longitudinal Study
BPS:20/22	2020/22 Beginning Postsecondary Students Longitudinal Study
C	Integrated Postsecondary Education Data System Completions
CHAID	chi-square automatic interaction detection
CIP	Classification of Instructional Programs
CPS	Central Processing System
CSV	comma-separated values
DEFF	design effect
DEFT	square root of the design effect
DOB	date of birth
E12	Integrated Postsecondary Education Data System 12-month Enrollment
ESRA	Education Sciences Reform Act
FAFSA	Free Application for Federal Student Aid
FPC	finite population correction
FSA	Federal Student Aid
HBCUs	Historically Black Colleges and Universities
HEOA	Higher Education Opportunity Act
HSI	Hispanic-Serving Institution
IC	Integrated Postsecondary Education Data System Institutional Characteristics
IC-H	Integrated Postsecondary Education Data System Institutional Characteristics Header
ICS	Institution Contacting System
IES	Institute of Education Sciences
IPEDS	Integrated Postsecondary Education Data System
IRP	Institution Registration Page
NASSGAP	National Association of State Student Grant & Aid Programs
NCES	National Center for Education Statistics
NPSAS	National Postsecondary Student Aid Study
NPSAS:87	1986–87 National Postsecondary Student Aid Study
NPSAS:96	1995–96 National Postsecondary Student Aid Study
NPSAS:2000	1999–2000 National Postsecondary Student Aid Study
NPSAS:04	2003–04 National Postsecondary Student Aid Study
NPSAS:08	2007–08 National Postsecondary Student Aid Study
NPSAS:12	2011–12 National Postsecondary Student Aid Study
NPSAS:16	2015–16 National Postsecondary Student Aid Study

<b>Acronym/Abbreviation</b>	<b>Name</b>
NPSAS:18-AC	2017–18 National Postsecondary Student Aid Study, Administrative Collection
NPSAS:20	2019–20 National Postsecondary Student Aid Study
NSC	National Student Clearinghouse
NSLDS	National Student Loan Data System
PDP	Postsecondary Data Portal
PII	personally identifiable information
PSU	primary sampling unit
RRI	item response rate
RUF	restricted-use file
SEOG	Supplemental Educational Opportunity Grant
SSL	Secure Sockets Layer
SSN	Social Security number
SSU	secondary sampling unit
STEM	science, technology, engineering, and mathematics
TRP	Technical Review Panel
UWE	unequal weighting effect
VBA	Veterans Benefits Administration
WSHD	weighted sequential hot deck

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## Appendix C. Sampling Details

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## C.1 Institution Frame and Sample

The 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC), institution sampling frame included all levels (less-than-2-year, 2-year, and 4-year) and control classifications (public, private nonprofit, and private for-profit) of Title IV eligible postsecondary institutions in the United States. To be eligible for NPSAS:18-AC, institutions must have met the following requirements:

- offer an educational program designed for persons who have completed secondary education;
- offer at least one academic, occupational, or vocational program of study lasting at least 3 months or 300 clock hours;
- offer courses that were open to more than the employees or members of the company or group (e.g., union) that administered the institution;
- be located in the 50 states, the District of Columbia, or Puerto Rico;
- not be a U.S. service academy institution; and
- have signed the Title IV participation agreement with the U.S. Department of Education.<sup>1</sup>

Institutions providing only avocational, recreational, remedial, or in-house courses for their own employees or members were excluded. The seven U.S. service academies (U.S. Air Force Academy, U.S. Coast Guard Academy, U.S. Naval Academy, U.S. Merchant Marine Academy, U.S. Military Academy, Naval Postgraduate School, and Air Force Institute of Technology–Graduate School) were also excluded because of the academies’ unique funding/tuition base.

The institution eligibility conditions for NPSAS:18-AC were consistent with the most recent iterations of NPSAS. The requirement that an institution must be eligible to distribute federal Title IV student aid was first implemented with the 1999–2000 National Postsecondary Student Aid Study (NPSAS:2000). In NPSAS:2000, it was determined that there was sufficient comparability in survey design to ensure that important comparisons with data from previous NPSAS cycles could be made (Riccobono et al. 2002). Institutions that offered only correspondence courses, provided these same institutions were also eligible to distribute federal Title IV

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<sup>1</sup> A Title IV eligible institution is an institution that has a written agreement (program participation agreement) with the U.S. Secretary of Education that allows the institution to participate in any of the Title IV federal student financial assistance programs other than the State Student Incentive Grant and the National Early Intervention Scholarship and Partnership programs.



student aid, were first included in the 2003–04 National Postsecondary Student Aid Study (NPSAS:04). Finally, while institutions in Puerto Rico were not included in the 1986–87 National Postsecondary Student Aid Study (NPSAS:87) and the 2011–12 National Postsecondary Student Aid Study (NPSAS:12), they were included in NPSAS:18-AC and all other administrations of NPSAS.

### ***C.1.1 Institution Sample Frame Construction***

The NPSAS:18-AC full-scale institution frame was constructed from the 2016–17 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics Header (IC-H), 2016–17 Institutional Characteristics (IC), 2015–16 12-month Enrollment (E12), and 2016–17 Completions (C) files. Due to several individual private for-profit institutions and large chains of private for-profit institutions closing or being sold during the sampling design process, web searches were performed and articles were read to identify and exclude institutions that were still in IPEDS but were no longer eligible for NPSAS:18-AC.

### ***C.1.2 Institution Sample Selection***

The institution strata were constructed following three sectors (combinations of institution level and control) within each of the 52 states and territories, for a total of 154 sampling strata ( $52 \times 3 - 2$ ):<sup>2</sup>

1. public 2-year,
2. public 4-year, and
3. all other sectors, including public less-than-2-year, private nonprofit (all levels), and private for-profit (all levels).

There were 3,130 institutions selected that included a census of all public, 2-year and all public, 4-year institutions as well as a sample of 1,390 institutions from the “all other sectors” stratum. Within the “all other sectors” stratum, the following criteria to determine institution sample sizes were used:

1. In states with 36 or fewer institutions in the “all other sectors” stratum, a census of all institutions was selected.

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<sup>2</sup> Two states had zero public 2-year institutions during sampling. One state, Alaska, had one institution that was sampled as a public 2-year institution but was recoded to a public 4-year institution after sampling due to updated IPEDS institution characterization for this institution. Tables related to institution sample selection in the data file documentation will provide sampling information for Alaska public 2-year institutions; otherwise, Alaska will be described as having no public 2-year institutions.

2. In states with more than 36 institutions in the “all other sectors” stratum, 30 institutions were sampled.

Within the “all other sectors” stratum, institutions were selected using stratified random sampling with probabilities proportional to a composite measure of size (Folsom, Potter, and Williams 1987). This was the same methodology that had been used since the 1995–96 National Postsecondary Student Aid Study (NPSAS:96). Institution measures of size were determined using the most recent IPEDS E12 data. Using a composite measure of size ensured that the target sample sizes were achieved within institution and student sampling strata while also achieving approximately equal student weights across institutions.

Within the “all other sectors” stratum, additional implicit stratification<sup>3</sup> was accomplished by sorting the sampling frame by the following classifications:

1. institution control and level;
2. Historically Black Colleges and Universities (HBCUs) indicator;
3. Hispanic-Serving Institutions (HSIs) indicator;<sup>4</sup>
4. Carnegie classifications of postsecondary institutions; and
5. the institution measure of size.

This implicit stratification helped ensure that the sample was approximately proportional to the population for these measures.

Each sampled institution verified as NPSAS eligible was asked to provide a complete list of students who were enrolled between July 1, 2017, and June 30, 2018<sup>5</sup> and satisfied all NPSAS eligibility conditions. These lists included information needed to identify students for matching to administrative records and for classifying students to create sampling strata. The following data items were requested from each sampled institution to form the student sampling frame:

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<sup>3</sup> *Implicit stratification* is the process in which strata are created during the sampling process by sorting the data, rather than creating the strata prior to sampling and selecting an independent sample from each stratum.

<sup>4</sup> An HSI indicator is no longer available from IPEDS, so we created an HSI proxy following the definition of HSI as provided by the U.S. Department of Education (<https://www2.ed.gov/programs/edueshsi/definition.html>) and using IPEDS Hispanic enrollment data.

<sup>5</sup> In prior rounds of NPSAS, enrollment lists covered the period of July 1–April 30 so as to not delay data collection. Although the data collection schedule for NPSAS:18-AC was later than usual, to be consistent with past rounds of NPSAS, the July 1–April 30 dates did not change. Any lack of coverage resulting from the truncated enrollment period is accounted for by the poststratification weight adjustment, which is described in chapter 6.

- name;
- Social Security number (SSN);
- student ID number (if different from SSN);
- degree program (undergraduate certificate, associate's degree, bachelor's degree, master's, doctoral-research/scholarship/other, doctoral-professional practice, other graduate);
- class level (first year, second year, etc.);
- date of birth (DOB);
- Classification of Instructional Programs (CIP) or major;
- high school/completion program completion date (month and year);
- enrollment in high school (or completion program);
- date of first enrollment (at the postsecondary level);
- veteran status;
- race;
- ethnicity;
- sex; and
- contact information (local and permanent street address and phone number and school and home e-mail address).

The 10 student sampling strata were:

1. undergraduate students;
2. graduate students who are veterans;
3. master's degree students in science, technology, engineering, and mathematics (STEM) programs;
4. master's degree students in education and business programs;
5. master's degree students in other programs;
6. doctoral-research/scholarship/other students in STEM programs;
7. doctoral-research/scholarship/other students in education and business programs;
8. doctoral-research/scholarship/other students in other programs;
9. doctoral-professional practice students; and
10. other graduate students.

If students fell into multiple strata, such as graduate students who were veterans, the ordering of the strata above was used to prioritize the stratification. Several student subgroups were intentionally sampled at rates differing from their natural occurrence within the population because of specific analytic objectives. Due to sheer numbers, sampling certain student groups at a typical rate would have made it difficult to draw inferences about the experiences of master's degree and doctoral students. Undergraduate students who were veterans were not oversampled within each state because that would have required too large a total sample size.

In determining student sample size allocation across the institution strata, the following notation was used:

$r = 1, 2, \dots, 154$  indexes the previously defined institution strata;

$s = 1, 2, 3, \dots, 10$  indexes the previously defined student strata;

$j = 1, 2, \dots, J(r)$  indexes the institutions within stratum  $r$ ;

$M_{rs}(j)$  = number of students enrolled between July 1, 2017, and June 30, 2018, who belonged to student stratum  $s$  at the  $j$ th institution in institution stratum  $r$ ;

$m_{rs}$  = number of students to be selected from student stratum  $s$  within the  $r$ th institution stratum (i.e., student stratum  $rs$ ); and

$\pi_r(j)$  = probability of selecting the  $j$ th institution in institution stratum  $r$ .

The overall population sampling rate ( $f_{rs}$ ) for student stratum  $rs$  is given by

$$f_{rs} = m_{rs} / M_{rs}(+),$$

where

$$M_{rs}(+) = \sum_{j=1}^{J(r)} M_{rs}(j).$$

The student sample was allocated to separate applicable institution and student sampling strata, as defined above. Student sampling rates, which were used to compute institution-level composite measures of size, were based on the IPEDS:2016–17 E12 and C files and the student sample sizes,  $m_{rs}$ , (table C-1). The initially computed stratum-level student sampling rates,  $f_{rs}$  (used to define institution measures of size), are shown in tables C-2 and C-3. Table C-2 shows

the initially computed stratum-level student sampling rates for undergraduate students for each of the 154 institution strata. Table C-3 presents the initially computed stratum-level student sampling rates for graduate students by control and level of institution.

**Table C-1. Number of expected and achieved sample students and percentage achieved, by student sampling type and control and level of institution: 2017–18**

Control and level of institution	All students			Undergraduates			Graduates		
	Number expected	Number achieved	Percent achieved	Number expected	Number achieved	Percent achieved	Number expected	Number achieved	Percent achieved
<b>All institutions</b>	<b>400,020</b>	<b>349,650</b>	<b>87.4</b>	<b>375,020</b>	<b>325,220</b>	<b>86.7</b>	<b>25,000</b>	<b>24,430</b>	<b>97.7</b>
Public less-than-2-year	1,400	1,060	76.2	1,400	1,060	76.2	†	†	†
Public 2-year	126,500	108,660	85.9	126,500	108,590	85.8	†	70	†
Public 4-year, non-doctorate-granting, primarily subbaccalaureate	18,310	17,880	97.6	18,230	17,740	97.3	80	140	173.1
Public 4-year, non-doctorate-granting, primarily baccalaureate	27,160	26,480	97.5	25,650	24,960	97.3	1,510	1,520	100.7
Public 4-year, doctorate-granting	112,800	99,160	87.9	106,540	91,600	86.0	6,270	7,560	120.6
Private nonprofit 2-year or less	1,360	1,120	82.4	1,360	1,120	82.4	†	†	†
Private nonprofit 4-year, non-doctorate-granting	32,820	32,620	99.4	29,120	29,130	100.0	3,700	3,490	94.4
Private nonprofit 4-year, doctorate-granting	42,090	36,280	86.2	35,900	29,760	82.9	6,190	6,520	105.3
Private for-profit less-than-2-year	5,320	6,380	120.1	5,320	6,380	120.1	†	†	†
Private for-profit 2-year	6,390	5,970	93.5	6,390	5,970	93.5	†	†	†
Private for-profit 4-year	25,880	14,050	54.3	18,620	8,910	47.9	7,260	5,140	70.8

† Not applicable.

NOTE: Some institution classifications of student type on the enrollment lists (e.g., undergraduate, or graduate) were updated over the course of student interviewing; the statistics presented in this table are based on the original student sampling frame classification, not on the student's final classification. 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table C-2. Sampling rates of undergraduate students, by institution stratum and state: 2017–18**

State	All sectors			Institution stratum <sup>1</sup>								
				Public 2-year			Public 4-year			All other sectors		
	Size of universe <sup>2</sup>	Sample size	Sampling rate	Size of universe <sup>1</sup>	Sample size	Sampling rate	Size of universe <sup>1</sup>	Sample size	Sampling rate	Size of universe <sup>1</sup>	Sample size	Sampling rate
<b>All states</b>	<b>23,401,690</b>	<b>325,220</b>	<b>0.014</b>	<b>8,988,690</b>	<b>108,590</b>	<b>0.012</b>	<b>8,657,420</b>	<b>134,300</b>	<b>0.016</b>	<b>5,755,580</b>	<b>82,340</b>	<b>0.014</b>
Alabama	334,650	5,790	0.017	119,570	2,280	0.019	149,130	2,420	0.016	65,950	1,090	0.016
Alaska <sup>3</sup>	46,470	6,950	0.149	730	600	0.815	42,630	6,190	0.145	3,110	170	0.053
Arizona	774,060	5,440	0.007	302,900	2,720	0.009	155,410	1,290	0.008	315,750	1,430	0.005
Arkansas	186,280	6,100	0.033	72,150	2,580	0.036	92,020	2,530	0.027	22,100	990	0.045
California	3,349,040	6,940	0.002	1,872,070	4,110	0.002	961,770	1,990	0.002	515,200	840	0.002
Colorado	412,010	6,610	0.016	108,510	2,110	0.019	199,390	3,280	0.016	104,120	1,220	0.012
Connecticut	221,570	6,180	0.028	73,780	2,240	0.030	60,960	1,470	0.024	86,820	2,470	0.028
Delaware	60,830	7,080	0.116	†	†	†	43,870	5,200	0.119	16,960	1,880	0.111
District of Columbia	60,430	4,810	0.080	†	†	†	5,750	600	0.104	54,670	4,210	0.077
Florida	1,374,460	6,480	0.005	80,610	1,460	0.018	921,390	3,940	0.004	372,470	1,080	0.003
Georgia	593,450	6,220	0.010	166,580	1,000	0.006	310,480	4,060	0.013	116,390	1,160	0.010
Hawaii	79,860	7,110	0.089	37,230	3,410	0.092	27,810	2,500	0.090	14,820	1,200	0.081
Idaho	159,770	4,430	0.028	33,480	1,210	0.036	51,420	1,620	0.031	74,860	1,600	0.021
Illinois	1,013,780	6,310	0.006	597,290	3,410	0.006	157,580	1,490	0.009	258,920	1,410	0.005
Indiana	503,030	7,350	0.015	165,960	2,370	0.014	230,110	3,280	0.014	106,950	1,700	0.016
Iowa	317,480	7,050	0.022	137,960	2,990	0.022	69,410	1,560	0.023	110,110	2,500	0.023
Kansas	266,790	5,640	0.021	130,000	2,300	0.018	88,110	2,300	0.026	48,690	1,040	0.021
Kentucky	272,590	5,520	0.020	107,430	1,610	0.015	116,450	2,620	0.023	48,710	1,290	0.026
Louisiana	293,450	6,600	0.022	101,720	2,010	0.020	142,850	3,250	0.023	48,880	1,330	0.027
Maine	83,170	5,140	0.062	24,210	1,380	0.057	31,740	1,990	0.063	27,220	1,770	0.065
Maryland	392,080	5,940	0.015	179,820	2,630	0.015	163,050	2,500	0.015	49,210	820	0.017
Massachusetts	469,170	7,020	0.015	132,610	1,750	0.013	116,510	1,820	0.016	220,050	3,450	0.016
Michigan	667,660	6,530	0.010	236,950	2,400	0.010	314,300	3,310	0.011	116,400	820	0.007
Minnesota	405,270	6,940	0.017	174,560	3,280	0.019	131,700	2,280	0.017	99,010	1,380	0.014
Mississippi	194,680	6,070	0.031	99,760	2,830	0.028	74,060	2,420	0.033	20,870	810	0.039
Missouri	429,300	6,160	0.014	133,690	1,820	0.014	145,320	2,030	0.014	150,300	2,310	0.015
Montana	57,590	5,900	0.102	13,370	1,450	0.108	38,000	3,900	0.103	6,230	550	0.089
Nebraska	148,980	5,200	0.035	65,120	2,470	0.038	51,820	1,200	0.023	32,050	1,530	0.048
Nevada	141,090	7,690	0.055	15,580	2,160	0.138	108,340	4,470	0.041	17,170	1,070	0.062
New Hampshire	138,130	6,190	0.045	22,130	1,230	0.056	26,820	1,390	0.052	89,180	3,570	0.040

See notes at end of table.

**Table C-2. Sampling rates of undergraduate students, by institution stratum and state: 2017–18—Continued**

State	All sectors			Institution stratum								
				Public 2-year			Public 4-year			All other sectors		
	Size of universe <sup>1</sup>	Sample size	Sampling rate	Size of universe <sup>1</sup>	Sample size	Sampling rate	Size of universe <sup>1</sup>	Sample size	Sampling rate	Size of universe <sup>1</sup>	Sample size	Sampling rate
New Jersey	487,360	6,530	0.013	224,480	2,870	0.013	168,690	2,520	0.015	94,190	1,150	0.012
New Mexico	170,520	6,240	0.037	105,070	3,860	0.037	55,640	1,780	0.032	9,820	600	0.061
New York	1,378,660	6,820	0.005	444,210	2,310	0.005	397,160	2,220	0.006	537,290	2,290	0.004
North Carolina	640,380	7,120	0.011	325,440	3,400	0.010	202,370	2,300	0.011	112,580	1,420	0.013
North Dakota	57,760	5,120	0.089	9,420	550	0.058	41,530	3,990	0.096	6,810	590	0.087
Ohio	769,690	7,000	0.009	264,460	2,580	0.010	323,020	3,020	0.009	182,210	1,400	0.008
Oklahoma	261,580	6,200	0.024	94,850	2,380	0.025	117,740	3,090	0.026	48,990	730	0.015
Oregon	307,920	5,760	0.019	165,120	3,040	0.018	107,550	1,750	0.016	35,250	960	0.027
Pennsylvania	773,020	6,580	0.009	191,930	1,700	0.009	256,370	2,600	0.010	324,730	2,280	0.007
Puerto Rico	257,810	5,480	0.021	3,410	60	0.018	59,680	1,000	0.017	194,720	4,410	0.023
Rhode Island	87,250	7,560	0.087	21,680	1,790	0.083	24,190	2,000	0.083	41,380	3,770	0.091
South Carolina	277,300	5,560	0.020	123,510	1,740	0.014	97,900	2,370	0.024	55,890	1,440	0.026
South Dakota	61,770	6,160	0.100	8,310	1,280	0.154	41,790	3,960	0.095	11,670	910	0.078
Tennessee	364,660	6,020	0.017	135,390	2,520	0.019	127,670	1,810	0.014	101,600	1,690	0.017
Texas	1,943,000	7,430	0.004	1,061,420	4,040	0.004	651,150	2,510	0.004	230,430	890	0.004
Utah	367,400	6,400	0.017	54,260	1,390	0.026	164,500	3,070	0.019	148,640	1,940	0.013
Vermont	47,370	5,970	0.126	9,500	1,430	0.150	19,920	2,470	0.124	17,950	2,080	0.116
Virginia	618,660	6,570	0.011	255,360	2,510	0.010	192,690	2,260	0.012	170,610	1,800	0.011
Washington	461,990	6,010	0.013	97,860	1,230	0.013	311,330	3,520	0.011	52,800	1,260	0.024
West Virginia	188,810	5,740	0.030	24,880	720	0.029	63,110	2,160	0.034	100,810	2,850	0.028
Wisconsin	388,590	6,420	0.017	131,430	2,120	0.016	193,960	3,140	0.016	63,200	1,160	0.018
Wyoming	43,130	5,180	0.120	30,950	3,250	0.105	11,300	1,880	0.166	880	50	0.057

† Not applicable.

<sup>1</sup> Institution stratum reflects institutional categorization as determined from the 2016–17 Integrated Postsecondary Education Data System (IPEDS) files.<sup>2</sup> Based on the IPEDS 2016–17 12-month Enrollment file.<sup>3</sup> Alaska had one institution that was sampled as a public 2-year institution but was recoded to a public 4-year institution after sampling due to updated IPEDS institution characterization for this institution.

NOTE: Sample sizes rounded to the nearest 10. Percentages are based on unrounded numbers. Detail may not sum to totals because of rounding. For the purposes of this table, Puerto Rico and District of Columbia are referred to as “states.”

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table C-3. Sampling rates of graduate students, by control and level of institution: 2017–18**

Control and level of institution	Graduate students														
	Veteran graduate students			Master's students			Doctoral-research/scholarship/other			Doctoral-professional practice			Other graduate students		
	Size of universe	Sample size	Sam-pling rate	Size of universe <sup>1</sup>	Sample size	Sam-pling rate	Size of universe	Sample size	Sam-pling rate	Size of universe	Sample size	Sam-pling rate	Size of universe	Sample size	Sam-pling rate
<b>Total</b>	<b>123,280</b>	<b>3,810</b>	<b>0.031</b>	<b>3,157,030</b>	<b>8,650</b>	<b>0.003</b>	<b>159,730</b>	<b>7,430</b>	<b>0.046</b>	<b>300,080</b>	<b>3,120</b>	<b>0.010</b>	<b>125,730</b>	<b>1,420</b>	<b>0.011</b>
Public															
Less-than-2-year	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†
2-year	#	10	†	#	20	†	#	10	†	#	#	†	#	40	†
4-year non-doctorate granting primarily subbaccalaureate	10	20	2.429	820	40	0.050	†	†	†	†	†	†	90	70	0.835
4-year non-doctorate granting primarily baccalaureate	2,910	430	0.146	157,600	900	0.006	†	†	†	†	†	†	10,920	190	0.017
4-year, doctorate-granting	33,360	670	0.020	1,327,850	1,570	0.001	84,480	3,650	0.043	118,810	1,190	0.010	53,900	480	0.009
Private nonprofit															
2-year or less	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†
4-year, non-doctorate-granting	7,960	780	0.098	229,640	2,500	0.011	†	†	†	†	†	†	12,440	210	0.017
4-year, doctorate-granting	44,350	740	0.017	1,084,010	1,820	0.002	55,310	2,650	0.048	172,360	990	0.006	38,790	320	0.008
Private for-profit															
Less-than-2-year	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†
2-year	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†
4-year	34,700	1,180	0.034	357,110	1,800	0.005	19,950	1,110	0.056	8,920	940	0.105	9,590	120	0.012

† Not applicable.

# Rounds to zero.

<sup>1</sup> Based on the IPEDS 2016–17 12-month Enrollment file.

NOTE: Veteran graduate students comprise stratum 2; master's degree students comprise strata 3, 4, and 5; doctoral-research/scholarship/other students comprise strata 6, 7, and 8; doctoral-professional practice students comprise stratum 9; and other graduate students comprise stratum 10.

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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



The composite measure of size for the  $j$ th institution in stratum  $r$  was then defined to be

$$S_r(j) = \sum_{s=1}^{10} f_{rs} M_{rs}(j),$$

which is the number of students that would be selected from the  $j$ th institution if all institutions on the frame were to be sampled. Chromy's (1979) sequential probability minimum-replacement sampling algorithm was used to select a sample of institutions for each institution stratum. To ensure the positive pairwise probabilities of selection required for proper variance estimation (Chromy 1981), the sampling algorithm was implemented with a random start for each institution stratum. Therefore, the probability of selection for the  $j$ th institution in institution stratum  $r$  is given by

$$\pi_j(j) = \begin{cases} \frac{n_r S_r(j)}{S_r(+)} & \text{for noncertainty selections} \\ 1 & \text{for certainty selections,} \end{cases}$$

where

$$S_r(+) = \sum_{j=1}^{J(r)} S_r(j),$$

and  $n_r$  is the number of noncertainty selections from stratum  $r$ .

Table C-4 shows the sample size for each of the 154 institution strata.

**Table C-4. Size of universe and number of institutions sampled, by institution stratum and state: 2017–18**

State	All sectors		Institution stratum <sup>1</sup>					
	Size of universe <sup>2</sup>	Sample size	Public 2-year		Public 4-year		All other sectors	
			Size of universe <sup>2</sup>	Sample size	Size of universe <sup>2</sup>	Sample size	Size of universe <sup>2</sup>	Sample size
<b>All states</b>	<b>6,710</b>	<b>3,130</b>	<b>990</b>	<b>990</b>	<b>750</b>	<b>750</b>	<b>4,980</b>	<b>1,390</b>
Alabama	90	70	30	30	10	10	50	30
Alaska <sup>3</sup>	10	10	†	†	#	#	10	10
Arizona	120	60	20	20	10	10	90	30
Arkansas	80	60	20	20	10	10	50	30
California	660	180	110	110	50	50	510	30
Colorado	110	60	10	10	20	20	80	30
Connecticut	80	50	10	10	10	10	60	30
Delaware <sup>3</sup>	20	20	†	†	#	#	10	10
District of Columbia <sup>3</sup>	20	20	†	†	#	#	20	20
Florida	360	100	40	40	40	40	290	30
Georgia	160	80	20	20	30	30	110	30
Hawaii	30	30	10	10	#	#	20	20
Idaho	40	40	#	#	#	#	30	30
Illinois	270	90	50	50	10	10	210	30
Indiana	120	50	#	#	20	20	100	30
Iowa	90	50	20	20	#	#	70	30
Kansas	80	60	30	30	10	10	50	30
Kentucky	100	50	20	20	10	10	70	30
Louisiana	120	60	20	20	20	20	90	30
Maine	40	40	10	10	10	10	20	20
Maryland	90	60	20	20	10	10	60	30
Massachusetts	180	60	20	20	20	20	150	30
Michigan	170	80	30	30	20	20	120	30
Minnesota	110	70	30	30	10	10	70	30
Mississippi	60	60	20	20	10	10	30	30
Missouri	180	60	20	20	10	10	150	30
Montana	30	30	10	10	10	10	10	10
Nebraska	50	50	10	10	10	10	30	30
Nevada	40	40	#	#	10	10	40	40
New Hampshire	40	40	10	10	10	10	30	30
New Jersey	150	60	20	20	10	10	120	30
New Mexico	50	50	20	20	10	10	20	20
New York	450	110	40	40	40	40	360	30
North Carolina	180	110	60	60	20	20	100	30
North Dakota	30	30	10	10	10	10	20	20
Ohio	310	100	40	40	40	40	240	30
Oklahoma	130	70	30	30	20	20	90	30
Oregon	90	60	20	20	10	10	60	30
Pennsylvania	360	90	20	20	50	50	300	30
Puerto Rico	150	50	10	10	10	10	130	30
Rhode Island	20	20	#	#	#	#	20	20
South Carolina	110	60	20	20	10	10	70	30
South Dakota	30	30	10	10	10	10	20	20
Tennessee	170	80	40	40	10	10	120	30
Texas	410	140	60	60	50	50	300	30
Utah	70	40	#	#	10	10	60	30
Vermont	30	30	#	#	10	10	20	20

See notes at end of table.

**Table C-4. Number of institutions sampled, by institution stratum and state: 2017–18—Continued**

State	All sectors		Institution stratum <sup>1</sup>					
			Public 2-year		Public 4-year		All other sectors	
	Size of universe <sup>2</sup>	Sample size	Size of universe <sup>2</sup>	Sample size	Size of universe <sup>2</sup>	Sample size	Size of universe <sup>2</sup>	Sample size
Virginia	160	70	20	20	20	20	120	30
Washington	110	70	10	10	30	30	70	30
West Virginia	80	50	10	10	10	10	50	30
Wisconsin	100	60	20	20	20	20	70	30
Wyoming	10	10	10	10	#	#	#	#

† Not applicable.

# Rounds to zero.

<sup>1</sup> Institution stratum reflects institutional categorization as determined from the 2016–17 Integrated Postsecondary Education Data System (IPEDS) files.<sup>2</sup> Based on the IPEDS 2016–17 12-month Enrollment file.<sup>3</sup> Alaska had one institution that was sampled as a public 2-year institution but was recoded to a public 4-year institution after sampling due to updated IPEDS institution characterization for this institution. There were no public 2-year institutions in Delaware or the District of Columbia.

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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

## C.2 Student Universe and Samples

The NPSAS:18-AC target population consisted of all eligible students enrolled at any time between July 1, 2017, and June 30, 2018, in eligible postsecondary institutions in the United States and who were

- enrolled in either: (1) an academic program, (2) at least one course for credit that could be applied toward fulfilling the requirements for an academic degree, (3) exclusively noncredit remedial coursework but determined by the institution to be eligible for Title IV aid, or (4) an occupational or vocational program that required at least 3 months or 300 clock hours of instruction to receive a degree, certificate, or other formal award;
- not currently enrolled in high school; and
- not solely enrolled in a high school completion program.

### C.2.1 Student Sampling Frame Construction

The sampling frames for selecting students were enrollment lists provided by the eligible sample institutions for students meeting eligibility criteria and enrolled between July 1, 2017, and June 30, 2018.

Each sampled institution verified as NPSAS eligible was asked to provide a list of all students who satisfied all the NPSAS:18-AC eligibility conditions, preferably an “unduplicated” electronic list (i.e., one in which each student’s name appeared

only once), together with identifying, classifying, and locating information (see section 2.3).

Several checks on quality and completeness of enrollment lists were implemented before the sample students were selected. Enrollment lists failed quality control checks under the following conditions:

- degree program—undergraduate certificate, associate’s degree, bachelor’s degree, master’s, doctoral-research/scholarship/other, doctoral-professional practice, other graduate—was not included or was unclear; or
- major fields of study or CIP codes were not clearly identified for graduate students; or
- if the percentage of students who were less than 18 years of age and did not have a high school graduation date was greater than five percent; or
- contact information appeared misaligned with student names in the enrollment list entry system; or
- the number of students listed was inconsistent with the most recent IPEDS data. For undergraduates and graduates, the list failed if its count differed by 50 percent or more (higher or lower) from the IPEDS enrollment count.

To keep institution burden to a minimum, two exceptions were made to these conditions: no lists were failed if the absolute difference between the enrollment list count for a particular student level and the IPEDS count for that level was less than 200 students and if the student list count was not zero. Likewise, if the IPEDS count was zero for any student level and the institution provided a list of any number of students at that particular level, the count passed the quality control check. Institutions providing lists that failed these checks were contacted so the detected problems could be resolved by, for example, providing further information or a revised list.

Prior to sampling, the students on the enrollment lists were matched to two administrative data sources—the Veterans Benefits Administration (VBA) and National Student Loan Data System (NSLDS) data. To identify and sample veterans, SSNs were sent from the student enrollment lists to the VBA for matching (see chapter 4 for further detail on administrative record matching). Graduate students identified as veterans receiving benefits (through VBA matching) or as veterans on the enrollment list were placed in the graduate students’ veterans stratum. Student SSNs from enrollment lists were also matched to NSLDS data. The match results identified federal student financial aid recipients.

### C.2.2 Student Sample Selection

As NPSAS statisticians received enrollment lists from institutions, and after matching to the VBA and NSLDS data was completed, students were randomly selected by means of stratified systematic sampling with predetermined sampling rates that varied by student stratum. Within the undergraduate student stratum, individuals were sorted by whether or not they were veterans and received federal aid. Within each graduate student stratum, individuals were sorted by whether or not they received federal aid. Students were then systematically sampled such that the number of undergraduate veterans and aided and unaided sampled students approximately matched the population proportions of these students within the institution and student strata. This implicit stratification was done to help produce more accurate undergraduate veterans and financial aid estimates.

To eliminate cross-institution duplication, the staff compared SSNs of students selected from an institution with SSNs of students who had already been selected from other institutions. Multiplicity adjustments in the sample weighting (described in more detail in chapter 6) accounted for the fact that any students who attended more than one institution between July 1, 2017, and June 30, 2018, had more than one chance of selection.

The development of student sampling rates within student stratum  $rs$  (i.e., the  $r$ th institution stratum and the  $s$ th student stratum within the institution stratum) were discussed in section C.1.2; the same notation applies here.

For the unconditional probability of selection to be a constant for all eligible students in stratum  $rs$ , the overall probability of selection should be the overall student sampling fraction,  $f_{rs}$ ; in essence, it must be required that

$$\frac{m_{rs}(j)}{M_{rs}(j)} \pi_r(j) = f_{rs},$$

or, equivalently,

$$m_{rs}(j) = f_{rs} \frac{M_{rs}(j)}{\pi_r(j)}.$$

Thus, the conditional sampling rate for stratum “ $rs$ ,” given selection of the  $j$ th institution, becomes

$$f_{rs|j} = f_{rs} / \pi_r(j).$$

It should be noted that, in this case, the desired overall student sample size,  $m_s$ , is achieved only *in expectation* over all possible samples.

Achieving the desired sample sizes with equal probabilities within strata in the particular sample that has been selected and simultaneously adjusting for institution nonresponse and ineligibility requires that

$$\sum_{j \in R} m_{rs}(j) = m_{rs},$$

where  $R$  denotes the set of eligible, *responding* institutions. Letting the conditional student sampling rate for stratum  $rs$  in the  $j$ th institution be

$$\hat{f}_{rs|j} = \hat{f}_{rs} / \pi_r(j),$$

then requires

$$\sum_{j \in R} \hat{f}_{rs} \frac{M_{rs}(j)}{\pi_r(j)} = m_{rs},$$

or, equivalently,

$$\hat{f}_{rs} = m_{rs} / \hat{M}_{rs},$$

where

$$\hat{M}_{rs} = \frac{\sum_{j \in R} M_{rs}(j)}{\pi_r(j)}.$$

Because setting student sampling rates was necessary before complete information on institution eligibility and response status was available,  $\hat{M}_{rs}$  was calculated as follows:

$$\hat{M}_{rs} = \sum_{j \in S} \frac{M_{rs}(j)}{\pi_r(j)} * E_r * R_r,$$

where  $S$  denotes the set of all sample institutions,  $E_r$  is the institution eligibility factor for institution stratum  $r$ , and  $R_r$  is the institution response factor for institution stratum  $r$ . These factors were the proportions of institutions expected to be eligible or responding within the defined strata. Because this determination was made after eligibility status had already been determined for some

institutions, values of 0 (known not eligible) or 1 (known eligible) were used, if known at that time.

These sampling rates were sometimes modified as follows:

- Student sampling rates were increased for each institution to yield at least 60 students (if possible) to ensure sufficient yield for variance estimation.
- Student sampling rates were decreased, with few exceptions,<sup>6</sup> if an institution sample size was greater than 600 students.
- Student sampling rates were adjusted higher or lower based on expected yield calculations for institutions where the sample had not yet been selected.

These adjustments to the initial sampling rates resulted in some additional variability in the student sampling rates and increased survey design effects (variance inflation, see section 6.3). Table C-1 shows the expected and achieved sample sizes by student sampling type and control and level of institution.

The achieved sample size of 349,650 was lower than the targeted 400,020 because many of the enrollment lists, particularly from private for-profit institutions, contained fewer students than expected based on initial IPEDS counts; fewer enrollment lists were received than expected based on past rounds of NPSAS. Sampling rates were adjusted, as described above, but the sample size still fell short of the target. Overall, more other graduate students (1,420) were selected into the sample than planned (950) (table C-5).

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<sup>6</sup> Approximately 10 institutions had a sample size greater than 600 due to the large size of the institution.

**Table C-5. Expected and achieved NPSAS:18 student samples, by student stratum: 2017–18**

Student stratum <sup>1</sup>	Students sampled		
	Number expected <sup>2</sup>	Number achieved <sup>3</sup>	Percent achieved <sup>4</sup>
<b>Total</b>	<b>400,020</b>	<b>349,650</b>	<b>87.4</b>
Undergraduate students	375,020	325,220	86.7
Graduate students	25,000	24,430	97.7
Veterans	3,690	3,810	103.2
Master's students in science, technology, engineering, and mathematics (STEM) programs	2,510	2,020	80.2
Master's students in education or business programs	3,120	3,220	103.4
Master's students in other programs	4,260	3,410	80.1
Doctor's—research/scholarship/other students in STEM programs	2,550	2,530	99.4
Doctor's—research/scholarship/other students in education or business programs	3,020	3,180	105.5
Doctor's—research/scholarship/other students in other programs	2,190	1,710	78.1
Doctor's—professional practice	2,710	3,120	115.1
Other graduate <sup>5</sup>	950	1,420	149.9

<sup>1</sup> Some institution classifications of student type on the enrollment lists (e.g., undergraduate, or graduate) were updated over the course of student interviewing. The statistics presented in this table are based on the original student sampling frame classification, not on the student's final classification.

<sup>2</sup> Based on sample allocation and the 2016–17 Integrated Postsecondary Education Data System 12-month Enrollment and Completions counts.

<sup>3</sup> The student sample was drawn from 2,210 eligible institutions that provided enrollment lists.

<sup>4</sup> Percentage reported reflects the ratio of "achieved" to "expected."

<sup>5</sup> Other graduate students are those who are not enrolled in a degree program, such as students just taking graduate courses.

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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



## References

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## **Appendix D: Student Records Instrument Specifications**

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## Section: Institution Information

### **BENRTYPE**

Choose how you will report enrollment status:

- Report Enrollment Status by Term
- Report Enrollment Status by Month

### **BTMNAM[1–12]**

Please provide your institution's terms for the 2017–18 academic year. Later, you will be asked to indicate each sampled student's enrollment status (e.g., full-time, half-time) during each of the terms you provide.

Enter the name, start date, and end date of each of the terms/enrollment periods occurring at [institution name] between July 1, 2017 and June 30, 2018.

Please include

- Summer sessions.
- Short sessions longer than two weeks in duration.
- Terms for special types of students (e.g., medical students).

Terms may start prior to July 1, 2017, or end after June 30, 2018, but some portion of the term must occur between July 1 and June 30. Note that summer sessions should be included if any portion of the term falls within the period of July 1 through June 30.

If your institution has more than one term that starts and ends in the same month, you only need to report the term one time. For example, if the general college and medical school both have fall semesters that start in August and end in December, you need only provide one fall semester, even if they do not start on the same days of the month. If the terms start or end in different months, please provide the terms separately:

- Term [1–12] Name.

NOTE: This item repeats for each term for up to 12 terms.

### **BTMBEG[1–12]**

Term [1–12] Start Date

- Month:  
-Select one-
- Day:  
-Select one-
- Year:  
-Select one-

NOTE: This item repeats for each term for up to 12 terms.

**BTMEND[1–12]**

Term [1–12] End Date

- Month:  
–Select one–
- Day:  
–Select one–
- Year:  
–Select one–

NOTE: This item repeats for each term for up to 12 terms.

**CRSUNIT**

Units per Course

How many units of credit does your institution typically award upon satisfactory completion of a standard academic course (e.g., English 101)?

- One unit
- Three units
- Other amount
- Differs by program, course, class level, or for some other reason
- Institution is clock hour only

**Section: General Student Information****FNAME**

First Name

**MNAME**

Middle Name

**LNAME**

Last Name

**SUFFIX**

Suffix

**SOCIAL**

Social Security Number/SSN

**ASTHDOB**

Date of Birth/DOB

- Month:  
-Select one-
- Day:  
-Select one-
- Year:  
-Select one-

**ASGENDER**

Sex

- Male
- Female
- Unknown

**BELIG**

Student is eligible for NPSAS:18?

- Yes
- No

**BELIGRSN**

Ineligible reason

- Not enrolled at institution
- Tuition refund
- Pays tuition to another institution
- Length of program
- Noncredit program
- Completing high school
- GED or high school completion program
- Adult basic education program

**AMARITAL**

Marital Status

- Not married (single, widowed, divorced)
- Married
- Separated
- Unknown

**AMAIDEN**

Maiden Name

**SPOUSEFN**

Spouse First Name

**SPOUSEMN**

Spouse Middle Name

**SPOUSELN**

Spouse Last Name

**ACITIZEN**

Citizenship Status

- US citizen or US national
- Resident alien, permanent resident, or other eligible non-citizen
- Foreign/International student with student visa
- Unknown

**AVETERAN**

Veteran Status (Veteran of U.S. Armed Forces?)

- No
- Yes, veteran
- Yes, active duty military
- Unknown

**AHIGHSCH**

High School Completion Type

- High school diploma
- GED or other equivalency
- High school completion certificate
- Foreign high school
- Home schooled
- No high school degree or certificate
- Unknown

**ASHIGHYR**

High School Completion Year

**ASHISPAN**

Ethnicity

- Hispanic or Latino
- Not Hispanic or Latino
- Unknown

**ASTWHITE**

Race: White

- Yes
- No

**ASTBLACK**

Race: Black or African American

- Yes
- No

**ASTASIAN**

Race: Asian

- Yes
- No

**ASINDIAN**

Race: American Indian or Alaska Native

- Yes
- No

**ASISLAND**

Race: Native Hawaiian or Other Pacific Islander

- Yes
- No

**PERMAD1L**

Permanent Address (Line 1)

**PERMAD2L**

Permanent Address (Line 2)

**PERMCITY**

Permanent City

**PERMSTAT**

Permanent State or Province

-Select State-



**PERMZIP**

Permanent ZIP

**PRMCNTRY**

Permanent Country (if not USA)

**LOCAD1L**

Last Known/Local Address (Line 1)

**LOCAD2L**

Last Known/Local Address (Line 2)

**LOCCITY**

Last Known/Local City

**LOCSTAT**

Last Known/Local State

-Select State-

**LOCZIP**

Last Known/Local ZIP

**SCHSTRES**

Is the student a permanent resident of [the state in which the institution is located]?

- No
- Yes
- Unknown

**PHONE1**

Phone 1

**PHONE1TYPE**

Phone 1 Type

- Home
- Mobile
- Other

**PHONE2**

Phone 2

**PHONE2TYPE**

Phone 2 Type

- Home
- Mobile
- Other

**PRSEMAIL**

Personal Email Address

**CAMEMAIL**

Campus Email Address

**PARFRST**

Parent's First Name

**PARMID**

Parent's Middle Name

**PARLAST**

Parent's Last Name

**PARSUF**

Parent's Suffix

**PARAD1L**

Parent's Address (Line 1)

**PARAD2L**

Parent's Address (Line 2)

**PARCITY**

Parent's City

**PARSTAT**

Parent's State

-Select State-

**PARZIP**

Parent's ZIP

**PARCNTRY**

Parent's Country (if not USA)

**PAREMAIL**

Parent's Email

**PARTEL**

Parent's Phone

**PARCELL**

Parent's Cell Phone

**PARPITL**

Parent's International Phone

**OTHFRST**

Other Contact's First Name

**OTHMID**

Other Contact's Middle Name

**OTHLAST**

Other Contact's Last Name

**OTHSUF**

Other Contact's Suffix

**OTHREL**

Relationship of Other Contact to Student

- Parent
- Guardian
- Sibling
- Aunt
- Uncle
- Grandparent
- Spouse
- Friend
- Colleague
- Other
- Unknown

**OTHAD1L**

Other Contact's Address (Line 1)

**OTHAD2L**

Other Contact's Address (Line 2)

**OTHCITY**

Other Contact's City

**OTHSTAT**

Other Contact's State

-Select State-

**OTHZIP**

Other Contact's ZIP

**OTHCNTRY**

Other Contact's Country (if not USA)

**OTHEMAIL**

Other Contact's E-mail

**OTHTEL**

Other Contact's Phone

**OTHCELL**

Other Contact's Cell Phone

**Section: Enrollment****BEERDTMY**

Date first enrolled at this institution

- Month:

-Select one-

- Day:

-Select one-

- Year:

-Select one-

**BELEDTMY**

Date last enrolled at this institution

- Month:  
-Select one-
- Day:  
-Select one-
- Year:  
-Select one-

**BEFSTTM**

First-time Beginning student

A first-time beginning student is defined as an undergraduate student who enrolled in college for the first time at this institution between July 1, 2017 and June 30, 2018, and

- Has not completed a postsecondary class at this or any other postsecondary institutions prior to July 1, 2017; and
- Did not transfer credits into this institution, other than advanced placement (AP) credits, international baccalaureate (IB) credits, or any other postsecondary credit earned prior to high school completion.

Please note that this definition differs from the first-time full-time designation reported to IPEDS.

- Yes
- No

**BETRANSFER**

Accepted transfer credits from another postsecondary institution?

- Yes
- No

**BERECVBA**

Ever received bachelor's degree?

- Yes
- No
- Unknown

**BEBADATE**

Date baccalaureate degree received

- Month:  
-Select one-
- Day:  
-Select one-
- Year:

-Select one-

**BREMEVER**

Ever taken a remedial course

Since completing high school, has the student taken any remedial/developmental courses to improve their basic skills in in math, reading, or other subjects?

- Yes
- No

**BEACTENG**

ACT English score

**BEACTMAT**

ACT Mathematics score

**BEACTRDG**

ACT Reading score

**BEACTSCI**

ACT Science score

**BEACTCOM**

ACT Composite score

**BESATCR**

SAT Critical Reading score

**BESATMAT**

SAT Mathematics score

**BESATWRT**

SAT Writing score

**Section: Enrollment for 2017–18****BENLADEG**

Program/Degree

In what degree program was this student enrolled on June 30, 2018? If the student was no longer enrolled on June 30, 2018, report the degree program for his or her last term enrolled between July 1, 2017 and June 30, 2018.

If the student was enrolled in more than one program, enter the highest degree program. If the student was enrolled in a dual degree program in which both degrees are the same level (such as a dual MD/PhD or dual MA/MBA), select the student's primary degree program.

- Enrolled in undergraduate courses, not in a degree program
- Undergraduate certificate or diploma (occupational or technical program)
- Associate's degree
- Bachelor's degree
- Enrolled in graduate courses, not in a degree program
- Postbaccalaureate certificate program
- Dual bachelor's/master's degree
- Master's degree
- Post-master's certificate
- Doctoral degree—research/scholarship
- Doctoral degree—professional practice
- Doctoral degree—other
- Unknown

## **BENADTYP**

### Graduate Degree Type

In what type of graduate degree program was this student enrolled on June 30, 2018? If the student was no longer enrolled on June 30, 2018, report the graduate degree program type for his or her last term during his or her last term enrolled between July 1, 2017 and June 30, 2018.

- Master of Science (MS)
- Master of Arts (MA)
- Master of Education (Med) or Teaching (MAT)
- Master of Business Administration (MBA)
- Master of Public Administration (MPA)
- Master of Social Work (MSW)
- Master of Fine Arts (MFA)
- Master of Public Health (MPH)
- Master of Divinity (MDiv)
- Other master's degree program not listed
- Doctor of Philosophy (PhD)
- Doctor of Education (EdD)
- Doctor of Science or Engineering
- Doctor of Psychology (PsyD)
- Doctor of Business or Public Admin (DBA, DPA)
- Doctor of Fine Arts (DFA)
- Doctor of Theology (ThD)
- Law (JD, LLB)
- Medicine or Osteopathic Medicine (MD, DO)
- Dentistry (DDS, DMD)
- Chiropractic (DC, DCM)
- Pharmacy (PharmD)

- Optometry (OD)
- Podiatry (DPM, DP, PodD)
- Veterinary medicine (DVM)
- Other doctoral degree not listed

**BENLALVL**

## Class Level

Enter the student's class level as of June 30, 2018. If the student was no longer enrolled on June 30, provide the student's class level during his or her last term enrolled between July 1, 2017 and June 30, 2018.

- First-Year/Freshman
- Sophomore
- Junior
- Senior
- 5th Year or Higher Undergraduate
- Undergraduate (unclassified)
- Student with bachelor's or advanced degree taking undergraduate courses
- 1st year Graduate
- Beyond 1st year Graduate
- Graduate (unclassified)
- Unknown

**BEDEGDATE**

## Degree completion date

- Month:  
-Select one-
- Day:  
-Select one-
- Year:  
-Select one-

**BEXPDEG**

Expected to complete degree requirements by June 30, 2018

**BENNFGPA**

Cumulative (Unweighted) GPA

**BECLKHRS**

Total Number of Clock Hours in Program

**BECLKCOMP**

Cumulative Clock Hours Completed



**BECRDHRS**

Total Number of Credit Hours in Program

**BECRDCOMP**

Cumulative Credit Hours Completed

**BTTUITOT**

Total Tuition and Mandatory Fees Charged

**BTUNJURI**

Residency for Tuition Purposes

- In-district
- In-state tuition based on legal residence
- In-state tuition for other reason (e.g., veteran status)
- Out-of-state
- No differential tuition based on residency
- Unknown

**BEUNDECL**

Major Undeclared

- Yes
- No

**BECIPMAJ1**

First Major CIP Code

**BECREMJR1**

First Major

**BECIPMAJ2**

Second Major CIP Code

**BECREMJR2**

Second Major

**BTMST[1–12]**

Enrollment Status [for term 1–12]

- Not enrolled
- Full-time
- 3/4-time

- Half-time
- Less than half-time

NOTE: This item repeats for each term for up to 12 terms.

### **BTMHR[1–12]**

Number of Credit or Clock Hours Enrolled [for term 1–12]

NOTE: This item repeats for each term for up to 12 terms.

## **Section: Budget for 2017–18 Academic Year**

### **CNPERIOD**

Budget Period

- Full-time, full-year
- Full-time, one term
- 3/4-time, full-year
- 3/4-time, one term
- Half-time, full-year
- Half-time, one term
- Less than half-time, full-year
- Less than half-time, one term
- Other

### **CNLCLRES**

Student Residence

- On-campus or school-owned housing
- Off-campus without parents
- Off-campus with parents
- Unknown

### **CTUITION**

Tuition/Fees

### **CNESROOM**

Room and Board

### **CNESBOOK**

Books/supplies

### **CNETRANS**

Transportation

**CNESCO**

Computer/Technology

**CNEHLTB**

Health Insurance

**CNEOTHER**

All Other

**CTOTLCOA**

Total

**Section: Financial Aid for 2017–18 Academic Year****CFAWARN**

Because of your institution's Satisfactory Academic Progress policy, at any time during the July 1, 2017 to June 30, 2018 financial aid year, was the student placed on financial aid warning?

- Yes
- No

**CFAPROB**

Because of your institution's Satisfactory Academic Progress policy, at any time during the July 1, 2017 to June 30, 2018 financial aid year, was the student placed on financial aid probation?

- Yes
- No

**CFAINELG**

Because of your institution's Satisfactory Academic Progress policy, at any time during the July 1, 2017 to June 30, 2018 financial aid year, was the student ineligible to receive Title IV financial aid?

- Yes
- No

**CFAFEDAID**

Student had federal aid for the July 1, 2017 to June 30, 2018 financial aid year?

- Yes
- No

**CFADPELL**

Pell Grant amount

**CFASSTAF**

Subsidized Direct/Stafford Loan amount

**CFAUSTAF**

Unsubsidized Direct/Stafford Loan amount

**CFADPLUS**

Parent PLUS loan amount

**CFAGPLUS**

Graduate PLUS loan amount

**CFATEACH**

Federal TEACH grant amount

**CPERKINS**

Perkins Loan amount

**CFAFSEOG**

Federal SEOG Grant amount

**CFATDFWS**

Federal Work Study AWARDED amount

**CFAIRAQ**

Iraq & Afghanistan Service Grant amount

**CFATVET**

Veterans Benefits amount

**CFASTATAID**

Student had state aid for the July 1, 2017 to June 30, 2018 financial aid year?

- Yes
- No

**CFSTATE[1-3]**

State Aid Program [1-3] Name

NOTE: This item repeats for up to three state aid programs.

**CFSTTYP[1-3]**

State Aid Program [1-3] Type

- Grant/scholarship, need-based
- Grant/scholarship, merit-based
- Grant/scholarship, both need and merit
- Grant/scholarship, neither need nor merit
- Grant/scholarship, unknown
- Tuition Waiver, nonfaculty/staff
- Loan
- Work-study
- Athletic scholarship
- Tuition waiver, faculty/staff
- Teaching assistantship/stipend
- Research assistantship/stipend
- Other assistantship/stipend
- Traineeship
- ROTC/Armed Forces Grants
- Veterans benefits
- Resident advisor/assistant (RA) benefits
- WIA/Job training/Vocational Rehabilitation
- Employer aid

NOTE: This item repeats for up to three state aid programs.

**CFSTAMT[1-3]**

State Aid Program [1-3] Amount

NOTE: This item repeats for up to three state aid programs.

**CFAINSTAID**

Student had institution aid for the July 1, 2017 to June 30, 2018 financial aid year?

- Yes
- No

**CFAINS[1-3]**

Institution Aid Program [1-3] Name

NOTE: This item repeats for up to three institution aid programs.

**CFAITYP[1-3]**

Institution aid program [1-3] type

- Grant/scholarship, need-based
- Grant/scholarship, merit-based
- Grant/scholarship, both need and merit

- Grant/scholarship, neither need nor merit
- Grant/scholarship, unknown
- Tuition Waiver, nonfaculty/staff
- Loan
- Work-study
- Athletic scholarship
- Tuition waiver, faculty/staff
- Teaching assistantship/stipend
- Research assistantship/stipend
- Other assistantship/stipend
- Traineeship
- ROTC/Armed Forces Grants
- Veterans benefits
- Resident advisor/assistant (RA) benefits
- WIA/Job training/Vocational Rehabilitation
- Employer aid

NOTE: This item repeats for up to three institution aid programs.

### **CFAIAMT[1-3]**

Institution Aid Program [1-3] Amount

NOTE: This item repeats for up to three institution aid programs.

### **CFAOTHGOV**

Student had private aid or other government aid for the July 1, 2017 to June 30, 2018 financial aid year?

- Yes
- No

### **CFAOTHGOV[1-3]**

Private Aid or Other Government Aid Program [1-3] Name

### **CFAGOVTyp[1-3]**

Private Aid or Other Government Aid Program [1-3] Type

- Grant/scholarship, need-based
- Grant/scholarship, merit-based
- Grant/scholarship, both need and merit
- Grant/scholarship, neither need nor merit
- Grant/scholarship, unknown
- Tuition Waiver, nonfaculty/staff
- Loan
- Work-study
- Athletic scholarship

- Tuition waiver, faculty/staff
- Teaching assistantship/stipend
- Research assistantship/stipend
- Other assistantship/stipend
- Traineeship
- ROTC/Armed Forces Grants
- Veterans benefits
- Resident advisor/assistant (RA) benefits
- WIA/Job training/Vocational Rehabilitation
- Employer aid

NOTE: This item repeats for up to three private or other government aid programs.

### **CFAGOVAMT[1-3]**

Private Aid or Other Government Aid [1-3] Amount

NOTE: This item repeats for up to three private or other government aid programs.

### **CFAOTHAID**

Student had other aid for the July 1, 2017 to June 30, 2018 financial aid year?

- Yes
- No

### **CFAOTHNAM[1-3]**

Other Aid Program [1-3] Name

NOTE: This item repeats for up to three other aid programs.

### **CFAOTHTYP[1-3]**

Other Aid Program [1-3] Type

- Grant/scholarship, need-based
- Grant/scholarship, merit-based
- Grant/scholarship, both need and merit
- Grant/scholarship, neither need nor merit
- Grant/scholarship, unknown
- Tuition Waiver, nonfaculty/staff
- Loan
- Work-study
- Athletic scholarship
- Tuition waiver, faculty/staff
- Teaching assistantship/stipend
- Research assistantship/stipend
- Other assistantship/stipend
- Traineeship
- ROTC/Armed Forces Grants

- Veterans benefits
- Resident advisor/assistant (RA) benefits
- WIA/Job training/Vocational Rehabilitation
- Employer aid

NOTE: This item repeats for up to three other aid programs.

**CFAOTHSRC[1-3]**

Other Aid Program [1-3] Source

- Institution
- State
- Federal
- Other

NOTE: This item repeats for up to three other aid programs.

**CFAOTHAMT[1-3]**

Other Aid Program [1-3] Amount

NOTE: This item repeats for up to three other aid programs.



## **Appendix E. Training Agenda for Institution Contactors**

# Institution Contacting Training Agenda

Purpose of Training: Learning study background and strategies for contacting institutions to set the groundwork for list collection and student records collection and prompting for completion of those collections.

## Day 1

Welcome and Introductions

NPSAS: The Study Overview

How Are the Data Used? Key Results from NPSAS

Steps in the Process

Example Interactions with the CA and Gatekeeper

Looking at the PC Welcome Packet and Prompting for the Institution Registration Page

IC Prompting Procedures: Check ICAN, events, timeline, review Frequently Asked Questions

Completing the Institution Registration Page (Round Robin)

## Day 2

List Collection: Student List page in ICS, List Upload page, List Instructions Review

Student List FAQs

Refusal Aversion Strategies and Roadblocks to List Participation (Appendix A and Cooperation Concerns page)

Example Interactions/List Prompting

Confidentiality Procedures/Signing the Affidavit

Role Play/Practice Using the ICS

Failed QC Follow-up Training

Looking Ahead to Student Records Collection

Question and Answer Review

## Appendix F. NPSAS Endorsements

The following organizations agreed to endorse NPSAS:18-AC as a demonstration of their support for the study and its data.

American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges

American Association of State Colleges and Universities

American Council on Education

Association for Institutional Research

Association of American Colleges & Universities

Association of Catholic Colleges and Universities

Association of Public and Land-grant Universities

Career Education Colleges and Universities

Carnegie Foundation for the Advancement of Teaching

The College Board

Council of Graduate Schools

Council of Independent Colleges

Education Commission of the States

Hispanic Association of Colleges and Universities

Midwestern Higher Education Compact

National Association of College and University Business Officers

National Association of Independent Colleges and Universities

National Association of State Student Grant and Aid Programs

National Association of Student Financial Aid Administrators

New England Board of Higher Education

Southern Regional Education Board

State Higher Education Executive Officers Association

United Negro College Fund

Western Interstate Commission for Higher Education

## **Appendix G. Institution Outreach and Marketing Materials**



# The Next NPSAS

2017–18 National Postsecondary Student Aid Study,  
Administrative Collection (NPSAS:18-AC)



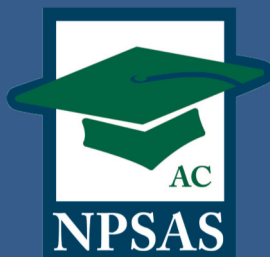
Enhancements include:

More current national data

State-level estimates

Analysis flexibility

Data feedback reports for participating institutions



NPSAS provides a comprehensive research  
dataset used to analyze student financial aid  
and inform public policy

[nces.ed.gov/surveys/npsas](https://nces.ed.gov/surveys/npsas)

Financial aid

Completion and degree attainment

Debt and repayment

Outcomes and experiences

---

## IMPORTANT ISSUES NEED POWERFUL DATA

---

National Center for Education Statistics (NCES) postsecondary education studies paint a descriptive portrait of U.S. higher education students and provide a window into their education, professional, and life experiences.

### NPSAS

**National Postsecondary Student Aid Study**

Student financial aid and demographics

### BPS

**Beginning Postsecondary Students  
Longitudinal Study**

Persistence and attainment of first-time beginning students

### B&B

**Baccalaureate and Beyond  
Longitudinal Study**

Outcomes and experiences of bachelor's degree recipients

### PETS

**Postsecondary Education Transcript Studies**

Relationships among postsecondary choices, experiences, and outcomes

### DataLab

Powerful yet intuitive analysis tools with more than 30 NCES datasets

PowerStats QuickStats TrendStats



**:ies** NATIONAL CENTER FOR  
EDUCATION STATISTICS  
Institute of Education Sciences

Learn more at the Postsecondary Data Portal (PDP):

[surveys.nces.ed.gov/portal](https://surveys.nces.ed.gov/portal)

Each tool offers an easy to use drag-and-drop interface.  
Once you learn one application, you have learned them all. And it's FREE!

Three easy to use, powerful, and robust online data analysis tools. With data covering pre-elementary to postsecondary education, you can easily find out how often school crime and violence occurs in K-12 schools, who completes college, and everything in between.

**QuickStats**

For novice users who want to create simple tables and charts using frequently used variables.

**PowerStats**

For advanced users who want to create complex tables and regressions.

**TrendStats**

For users interested in tracking trends across multiple survey years. TrendStats allows you to create complex tables spanning multiple data collection years, and adjust estimates for inflation.

**Workspace** >> Percentage Distribution CREATE TABLE

**COLUMN:** Completed degree program

**ROWS:** Working title - Column Variable by Row Variable

Completed degree program	Cat 2	Cat 3	Cat 4	Cat 5	Cat 6	Cat 7	Cat 8
Total							
Year 1							
Year 2							
Year 3							
Year 4							

Select a column and row variable.

Row Variable 1

Cat 1						
Year 1						
Year 2						
Year 3						

**FILTER 1:** Optional. Drag desired variable here

**FILTER 2:** Optional. Drag desired variable here

HOW DO FILTERS WORK? ?





NCES

# DATALAB

Providing Data to the Public through Fast, Flexible, and Powerful Tools



DataLab is funded by the U.S. Department of Education/National Center for Education Statistics under Contract No. ED-IES-12-C-0094. It was developed and is managed by RTI International.






Email: [nces.info@rti.org](mailto:nces.info@rti.org)  
[nces.ed.gov/DataLab](https://nces.ed.gov/DataLab)

**Over 30 federal datasets offering a wealth of information on American education.**

**Powerstats.** A powerful and easy-to-use online analytical tool that helps you answer questions about American education.



*Here is a small sample of the information you will find...*

-  *The average amount of federal aid received by undergraduates in 2015–16 was \$8,600 among those that received federal aid.*
-  *Among first-time postsecondary students beginning at a 4-year college in 2011–12 and pursuing a bachelor's degree, 65% were still enrolled at their first institution three years later.*
-  *Seventy four percent of 1992–93 bachelor's degree recipients who did not enroll in graduate school had repaid all their undergraduate student loans within 10 years.*
-  *From 1996 to 2016, the percentage of undergraduates that applied for federal financial aid rose from 45% to 70%.*
-  *Among first-generation college students beginning in 2011–12, 40% were no longer enrolled 3 years after starting their postsecondary education.*

***Loaded with federal education data on:***

-  Financial aid
-  Demographics
-  Persistence and transfer rates
-  Degree attainment
-  Employment experiences
-  Workforce outcomes
-  Family formation
-  Institution characteristics
-  Income and debt repayment
-  Graduate school patterns

# PowerStats

*Easy to use drag-and-drop interface*



Save tables and specification files to your personalized library



Create percentage distribution, averages, medians, or percentile tables



Full service Learning Center offers tutorials, training videos, and self-guided exercises

*Download print-ready tables & data*



Download tables as print-ready PDF



Export tables as Excel and CSV files

*And much more!*

**National Center for Education Statistics**  
Computation by NCES PowerStats on 5/23/2017

**Applied for federal aid with (percent >0), Total federal loans and grants 1 by NPSAS institution sector (4 with multiple).**

	Applied for federal aid (%>0)	Total federal loans and grants (Avg>0)
<b>Estimates</b>		
<b>Total</b>	<b>70.1</b>	<b>7,181.6</b>
<b>NPSAS institution sector (4 with multiple)</b>		
Public 4-year	71.5	7,822.7
Private nonprofit 4-year	75.9	8,804.4
Public 2-year	60.6	4,488.7
Private for profit	87.4	9,085.9
Others or attended more than one school	73.5	7,495.0

The names of the variables used in this table are: FGRTL, SECTOR4 and FEDAPP.  
The weight variable used in this table is WTA000.  
Source: U.S. Department of Education, National Center for Education Statistics, 2011-12 National Postsecondary Student Aid Study (NPSAS:12).

**Quickstats.** Quickly find answers to your questions by creating simple tables and charts using this easy-to-use online data analysis tool.



## Create Tables in an Instant!

Schoools and Staffing Survey, Public Teachers: 2011-12

FIND VARIABLES Enter search terms GO

**VARIABLES**

- General Information
- Class Organization
- Education and Training

**WORK SPACE** Change Group Clear All

Column Drag desired variable here.

Row Drag desired variable here.

	Default Cat	Default Cat	Default Cat	Default Cat	Default Cat
Total	%	%	%	%	%
Row var label	%	%	%	%	%
Row var label	%	%	%	%	%
Row var label	%	%	%	%	%
Row var label	%	%	%	%	%
Row var label	%	%	%	%	%
Row var label	%	%	%	%	%

CREATE TABLE

Subgroup 1 This step is optional. Drag desired variable here.

Subgroup 2 This step is optional. Drag desired variable here.

Build your table using an intuitive drag-and-drop interface

Create tables with the most frequently used variables from NCES surveys

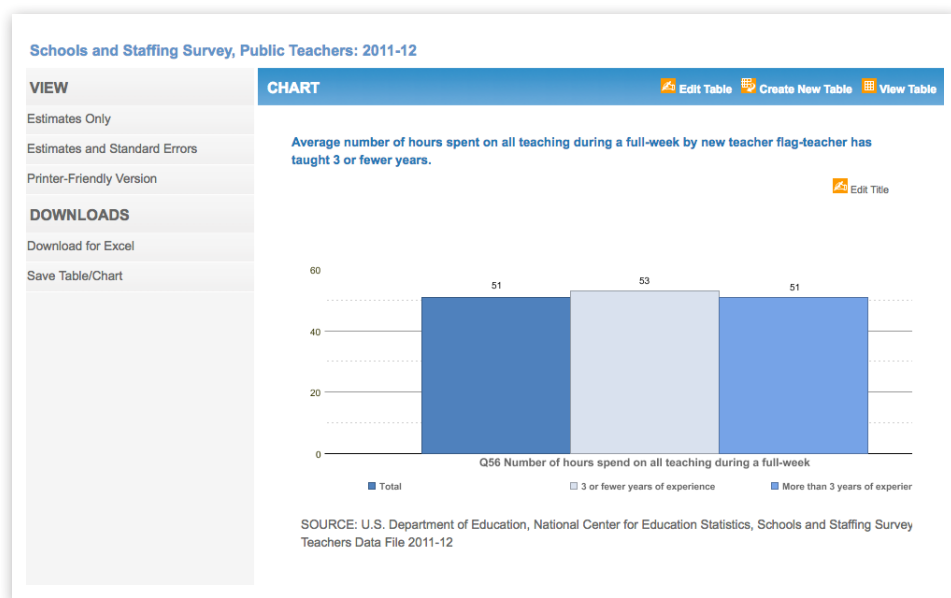
Explore over 25 NCES survey data sets in a free online interface

No account or sign-up required

[nces.ed.gov/Datalab](https://nces.ed.gov/Datalab)



Create a Chart with One Click!



Instantly convert your analysis into a bar chart

Download print-ready tables & data



Full service Learning Center offers tutorials, training videos, and self-guided exercises



Export tables as Excel Files, Save at NCES, or share your analysis via e-mail

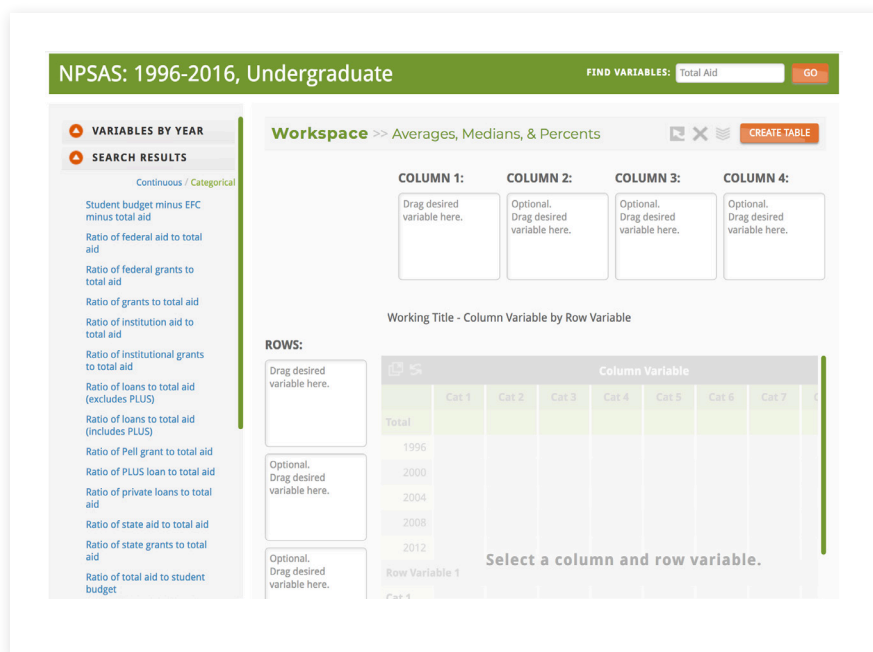
And much more!

**TrendStats.** Create complex data tables using multiple datasets in a single workspace, and track trends across survey years.

# TrendStats



*Compare Like Variables Across  
Survey Collections*



**NPSAS: 1996-2016, Undergraduate** FIND VARIABLES: Total Aid GO

**VARIABLES BY YEAR**

**SEARCH RESULTS**

Continuous / Categorical

- Student budget minus EFC minus total aid
- Ratio of federal aid to total aid
- Ratio of federal grants to total aid
- Ratio of grants to total aid
- Ratio of institutional aid to total aid
- Ratio of institutional grants to total aid
- Ratio of loans to total aid (excludes PLUS)
- Ratio of loans to total aid (includes PLUS)
- Ratio of Pell grant to total aid
- Ratio of PLUS loan to total aid
- Ratio of private loans to total aid
- Ratio of state aid to total aid
- Ratio of state grants to total aid
- Ratio of total aid to student budget

**Workspace** >> Averages, Medians, & Percents CREATE TABLE

**COLUMN 1:** Drag desired variable here.

**COLUMN 2:** Optional. Drag desired variable here.

**COLUMN 3:** Optional. Drag desired variable here.

**COLUMN 4:** Optional. Drag desired variable here.

Working Title - Column Variable by Row Variable

**ROWS:**

Drag desired variable here.

Optional. Drag desired variable here.

Optional. Drag desired variable here.

	Total	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5	Cat 6	Cat 7
1996								
2000								
2004								
2008								
2012								
Row Variable 1								

Select a column and row variable.

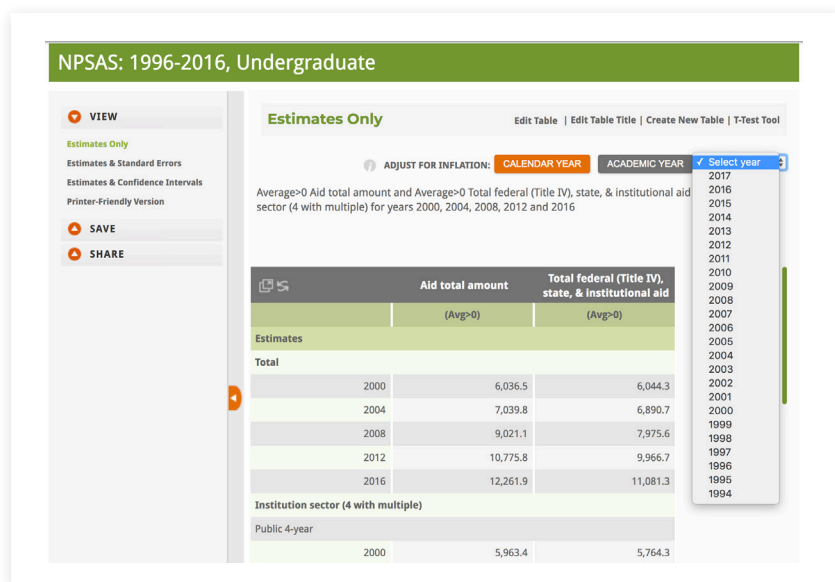
Explore comparable variables across numerous survey collections in a single workspace.

Build complex data tables using up to five surveys with a simple, drag-and-drop interface

Identify trends for topics such as net cost of attendance, enrollment patterns, financial aid packages, and borrowing patterns

# TrendStats

## Adjust Estimates for Inflation



Adjust your analysis for inflation by either academic or calendar year



Compare average and median costs and aid amounts across time

## Answer Research Questions



Has the percentage of undergraduates that applied for federal financial aid risen or declined between 1996 and 2016? Use FEDAPP in NPSAS Undergraduate to answer this question.



How have the average amounts and types of financial aid received by graduate students differed between 1996 and 2016? Use TOTAID and AIDTYPE in NPSAS Graduates to answer this question.



From 2004 to 2016, what percentage of graduate students received financial aid from their employers, and what degree programs were most popular amongst students receiving employer aid? Use EMPLOYAMT in NPSAS Graduates to answer this question.

# Appendix H. Institution Data Collection Materials

Chief Administrator Letter and E-mail .....	H-2
NPSAS:18-AC Brochure .....	H-4
Study Overview and Timeline .....	H-6
Coordinator Welcome Letter (when coordinator is also the coordinator for BPS:12 transcript collection) .....	H-7
Coordinator Welcome Letter (when coordinator is not the BPS:12 transcript collection coordinator) .....	H-9
Postsecondary Data Portal Bookmark .....	H-11
NPSAS:18-AC Flyer.....	H-12
Coordinator Enrollment List Request Letter and E-mail .....	H-14
Student Records Request Letter and E-mail .....	H-16
Reminder E-mail 1 for Various Tasks .....	H-21
Reminder E-mail 2 for Student Records .....	H-22
Thank You for Completing the Institution Registration Page E-mail .....	H-23
E-mail to Touch Base Between Institution Registration Page Thank You and List Request.....	H-23
Thank You for List E-mail.....	H-24
Touch Base Between List and Student Records E-mail .....	H-24
E-mail Granting Due Date Extension .....	H-25
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Letter to Nonrespondent Institutions .....	H-26
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## Chief Administrator Letter and E-mail

<b>NPSAS</b>	(Date)	
<b>Endorsed by</b>	(Salutation) (FirstName) (LastName)	Your IPEDS UNITID: (UnitID)
	(Title)	Your password: (Password)
List of agencies is	(Institution)	
printed here along	(Address)	
the left margin.	(City), (State) (Zip)	

Dear (Salutation) (LastName):

(Institution) has been selected to participate in the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC), which is conducted by the U.S. Department of Education’s National Center for Education Statistics (NCES) under a congressional mandate to gather information from postsecondary institutions on how students and their families finance postsecondary education.

NPSAS is a very important source of information for Congress, policymakers, states, and institutions in informing the effectiveness of federal, state, and institution financial aid programs. The quality and affordability of postsecondary education are central concerns for students and their families. The data collected from student records provide much-needed information about today’s college students as they begin, leave, and reenter postsecondary education; transfer between institutions; and complete programs at all levels of institutions. Additionally, for the first time, NPSAS will collect data to generate state-level financial aid estimates for undergraduate students to inform states’ policies and planning. Your participation is vital in ensuring that the data collected accurately represent the undergraduate students in your state.

Recognizing that NCES data collection requests add to the workload of institution staff tasked with providing the data, NCES developed the secure Postsecondary Data Portal (PDP) website which provides a common data reporting platform for NCES’ postsecondary data collections, other than the Integrated Postsecondary Education Data System (IPEDS). Currently, NCES is using the PDP to collect the transcripts of participants in the 2011–12 Beginning Postsecondary Students Longitudinal Study (BPS:12) and the High School Longitudinal Study of 2009 (HSL:09), and hopes that having the website will make it easier for your staff to provide data to NCES given that they will not need to learn new reporting processes for each new study. We are also planning to provide a data feedback report to participating institutions that allows staff to see how their institution compares to financial aid estimates at the sector, state, and/or national levels (depending on responses rates).

Please log in to the PDP website, <https://surveys.nces.ed.gov/portal>, and designate a coordinator for your institution. Your login information is included at the bottom of this letter. *[If a coordinator has been named for the BPS:12/HSL:09 transcript collection, fill: Your institution’s coordinator for the BPS:12/HSL:09 transcript collection is (BPS/HSL Coordinator Name).]* *[If a coordinator was named in 2017 and is not the same person as the current BPS/HSL coordinator, fill: Your institution’s coordinator for the 2017 NCES student records and transcript collections was (fill 2017 SR-PETS Coordinator Name).]*

Once you name a coordinator, that individual will receive an information packet and a follow-up call

from RTI International, a nonprofit research organization administering NPSAS:18-AC for NCES. The coordinator will be asked to provide a data file of students enrolled at your institution in 2017–18 from which RTI will select a sample of students. Your coordinator will then be asked to provide additional information about their enrollment status, demographic characteristics, and financial aid.

The enclosed brochure and timeline describe our data collection procedures and provide a summary description of the laws and procedures safeguarding the confidentiality of the collected data.

If you have any questions about the study, please contact Tiffany Mattox, NPSAS:18-AC Records Coordinator, at 1-855-500-1441 or via e-mail at [PortalHelp@rti.org](mailto:PortalHelp@rti.org). If you have any comments or general feedback that you would like to provide to NCES about this or any other data collection, please contact Sean Simone, PhD, Project Officer, NPSAS:18-AC, at 202-245-7631 (e-mail address: [sean.simone@ed.gov](mailto:sean.simone@ed.gov)).

We look forward to your participation in this important study.

Sincerely,

(electronic signature)

NCES staffperson name

NCES staffperson title

Enclosures

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

Your user name: (UnitID)

Your temporary password: (Password)

---

NCES is authorized to conduct the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC) 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 1850-0666. The time required to complete this information collection is estimated to average approximately 25 hours 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 information collection, or any comments or concerns regarding the status of your individual submission of these data, please write directly to: Postsecondary Data Portal studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

---

# NPSAS:18-AC Brochure

## About the Study

The affordability of postsecondary education is a vital concern for students, parents, and policymakers. That is why the information gathered for the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC) is so important. Like prior NPSAS collections, this study explores how students and parents finance postsecondary education and provides comprehensive data on the enrollment status, majors, and demographic characteristics of students continuing their education after high school. In addition, the National Center for Education Statistics (NCES) designed NPSAS:18-AC to provide representative samples for each of the U.S. states. This design will allow researchers and other data users to generate state-representative undergraduate financial aid estimates and compare financial aid programs at the state level.

## About NCES

NCES is authorized by federal law to collect, collate, analyze, and report complete statistics on the condition of education in the United States and other nations. Through the Higher Education Opportunity Act of 2008 (20 U.S.C. §1015), Congress requires that NCES collect information from postsecondary institutions about how students and their families finance education beyond high school. NPSAS has collected information from postsecondary students and institutions since 1987.

For assistance, please contact the Help Desk or visit the website:

 <https://surveys.nces.ed.gov/portal>  
 **1-855-500-1441**  
 **PortalHelp@rti.org**

If you have questions or concerns about NPSAS:18-AC, you may contact:

### RTI International

Tiffany Mattox	Peter Siegel
Institution Records	Project Director,
Coordinator	NPSAS:18-AC
<a href="mailto:tmattox@rti.org">tmattox@rti.org</a>	<a href="mailto:siegel@rti.org">siegel@rti.org</a>
1-855-500-1441	1-855-500-1441

### National Center for Education Statistics

Sean Simone, PhD  
 NCES Project Officer, NPSAS:18-AC  
[Sean.Simone@ed.gov](mailto:Sean.Simone@ed.gov)  
 202-245-7631

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

## 2017–18 National Postsecondary Student Aid Study

## Administrative Collection (NPSAS:18-AC)



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 EDUCATION STATISTICS  
 Institute of Education Sciences

**ies** NATIONAL CENTER FOR  
 EDUCATION STATISTICS  
 Institute of Education Sciences

NCES 2018-490

## About NPSAS

NPSAS compiles comprehensive data about the full range of student financial aid programs, together with demographic and enrollment data. The study provides vital information about the affordability of postsecondary education and the effectiveness of existing financial aid programs.

## Importance of NPSAS Data

NPSAS is the primary source of data used by federal government agencies and higher education associations to analyze the effectiveness of current federal student financial aid programs. It is used by the U.S. Department of Education, the Congressional Budget Office (CBO), the Government Accountability Office (GAO), the Office of Management and Budget (OMB), the American Council on Education (ACE), the National Association of Independent Colleges and Universities (NAICU), the National Association of Student Financial Aid Administrators (NASFAA), and many others to prepare the reports that influence the direction of federal student aid policies.

NPSAS data appear in a wide array of publications and reports, and are cited in journal and newspaper articles and in foundation policy briefs. The published materials focus on a variety of topics, including describing the student population, financial aid use and debt accumulation, and educational outcomes.

## Access to Study Data

There are a variety of tools available for people who want to access NPSAS data through NCES's DataLab site (<https://nces.ed.gov/datalab>). PowerStats and QuickStats, for example, provide users with an interface for creating tables and conducting analyses with prior NPSAS datasets. The College and Career Tables Library offers access to thousands of tables produced for NCES publications.

## Confidentiality of Data

NCES is required to follow strict procedures to protect personal information in the collection, reporting, and publication of data. All of the information provided by individuals or institutions 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 Family Educational Rights and Privacy Act of 1974 (FERPA, 20 U.S.C. §1232g) allows for the release of institution record information to the Secretary of Education or her agent without prior consent of survey members (34 CFR §§ 99.31 [a][3] and 99.35). RTI International, as the contractor for NCES, has been given the authority to collect information from institution records on behalf of NCES under the provisions of the Higher Education Opportunity Act of 2008 (HEOA 2008, 20 U.S.C. §1015).



## Protection of Electronic Files

All electronic files from institution records will be protected. Computer accounts used to access data will be password protected with multilevel access controls to ensure that only authorized individuals are allowed access to confidential data. For the web-based data collection, proven methods of protection for online sessions and data security over the Internet will be used. Secure Sockets Layer (SSL) protocol will be used to encrypt the data. All the data entry modules on the website will be password protected, which will require the user to log in to the site before accessing confidential data.

## Preparation of Data for Public Release

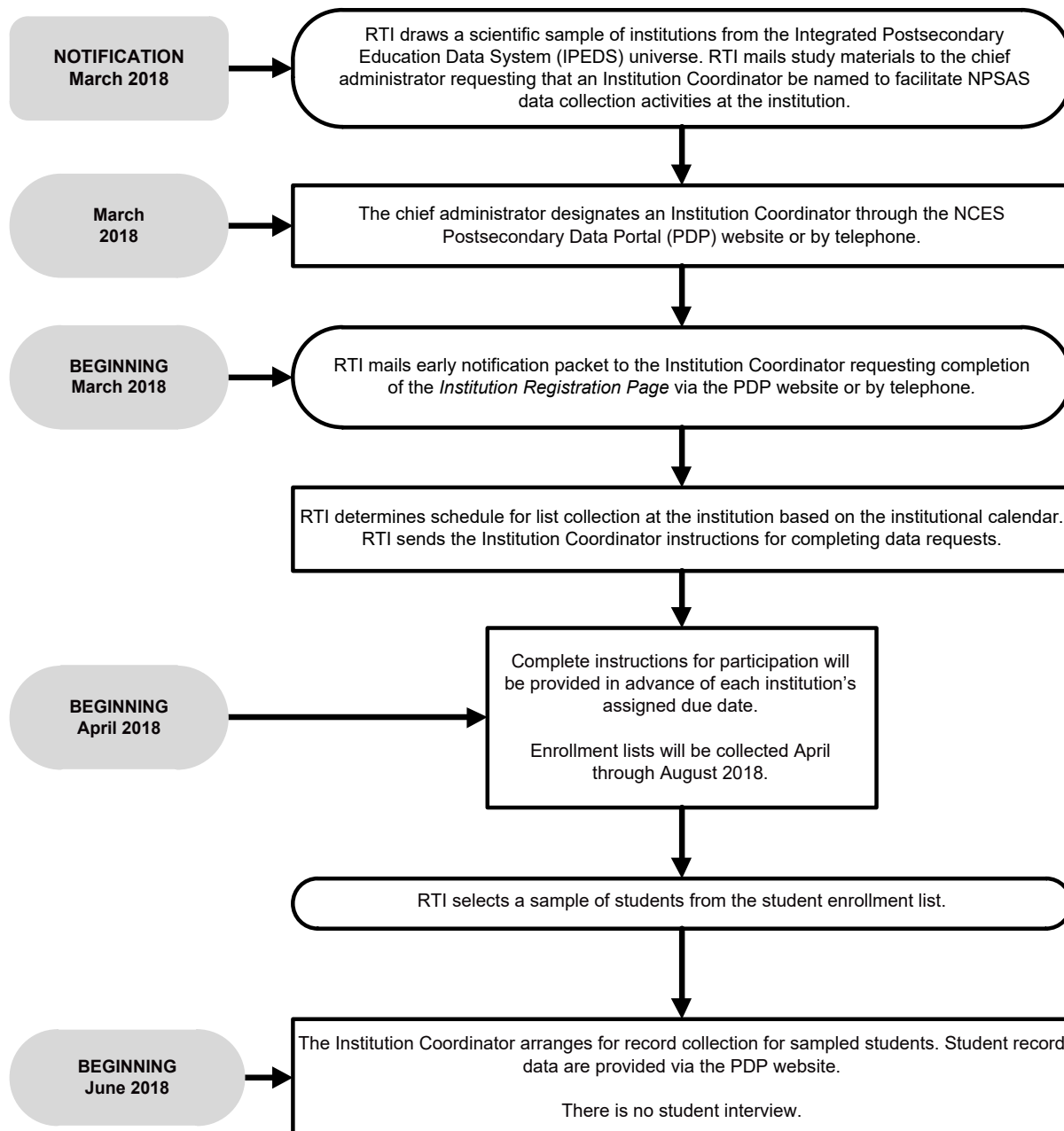
It will not be possible to identify specific individuals in any data (e.g., statistical tables) released to the public.

## Study Overview and Timeline



### 2017-18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC)

#### Overview of NPSAS Activities



## Coordinator Welcome Letter (when coordinator is also the coordinator for BPS:12 transcript collection)

*NPSAS* (Date)  
*Endorsed by* (Salutation) (FirstName) (LastName)  
 (Title)  
 List of agencies is (Institution)  
 printed here along (Address)  
 the left margin. (City), (State) (Zip)

Dear (Salutation) (LastName):

(Institution) has been selected to participate in the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC) conducted by the U.S. Department of Education’s National Center for Education Statistics (NCES) under a congressional mandate to gather information from postsecondary institutions on how students and their families finance postsecondary education.

**The chief administrative officer of your institution, <CA name>, has designated you as your institution’s coordinator for the NPSAS:18-AC institution data collection.**

NPSAS is a very important source of information for Congress, policymakers, states, and institutions in informing the effectiveness of federal, state, and institution financial aid programs. The quality and affordability of postsecondary education are central concerns for students and their families. The data collected from student records provide much-needed information about today’s college students as they begin, leave, and reenter postsecondary education; transfer between institutions; and complete programs at all levels of institutions. Additionally, for the first time, in addition to federal financial aid estimates, NPSAS will collect data to generate state-level financial aid estimates for undergraduate students to inform states’ policies and planning. Your participation is vital in ensuring that the data collected accurately represent the undergraduate students in your state.

In addition to being named the NPSAS:18-AC coordinator, our records indicate that you are also the coordinator for another NCES sample studies data collection, the 2011–12 Beginning Postsecondary Students Longitudinal Study (BPS:12) transcript collection. That collection is occurring within the secure Postsecondary Data Portal (PDP) website, a single location through which institutions can provide the student data required by any and all NCES postsecondary sample-based data collections. NPSAS:18-AC will use that same PDP.

As coordinator, you will be asked to:

- Complete the brief Institution Registration Page on the NCES Postsecondary Data Portal (PDP) website or by telephone within the next few weeks. We will schedule data collection for your institution based on the information you provide.
- Oversee the preparation of a list of students enrolled at your institution. The list will be used to draw a sample of students from your institution for NPSAS:18-AC.
- Complete a web-based program (or prepare data files) providing institution records on such information as enrollment status, demographic characteristics, and financial assistance provided for the sampled students.



After the data are collected, we will provide a data feedback report to participating institutions that allows staff to see how their institution compares to financial aid estimates at the sector, state, and/or national levels (depending on response rates).

As coordinator, you may access the pages of the PDP that contain student-level information. If additional staff at your institution will be providing data, you will need to add them as users. After logging in, click on Manage My Users and follow the instructions to add additional users and send them their login information via e-mail through the PDP website.

The enclosed brochure and project timeline detail our data collection procedures and the laws and procedures safeguarding the confidentiality of the information collected. Another letter or e-mail will be sent to you, requesting a list of enrolled students, before the due date established for your institution. Enrollment lists will be collected April through August 2018. A specific due date will be determined based on your institution's term structure. The NPSAS:18-AC and BPS:12 data collections are being administered for NCES by RTI International, a nonprofit research organization. A project representative will call you in the next few days to ensure that you have received this notification and to answer any questions you may have.

Additional information, including reports based on data from previous NPSAS studies, is available on the PDP website: <https://surveys.nces.ed.gov/portal>. If you have questions about the study or procedures, please contact RTI's Institution Records Coordinator, Tiffany Mattox, at 1-855-500-1441 or via e-mail at [PortalHelp@rti.org](mailto:PortalHelp@rti.org). If you have any comments or general feedback that you would like to provide to NCES about this or any other data collection, please contact Sean Simone, PhD, Project Officer, NPSAS:18-AC, at 202-245-7631 (e-mail address: [Sean.Simone@ed.gov](mailto:Sean.Simone@ed.gov)).

We look forward to your participation in this important study.

Sincerely,

(electronic signature)

*Signature block for NCES staff*

*National Center for Education Statistics*

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

Your user name: (UserID)

Your temporary password: (Password)

Enclosures

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NCES is authorized to conduct the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC) 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 1850-0666. The time required to complete this information collection is estimated to average approximately 25 hours 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 information collection, or any comments or concerns regarding the status of your individual submission of these data, please write directly to: Postsecondary Data Portal studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

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## Coordinator Welcome Letter (when coordinator is not the BPS:12 transcript collection coordinator)

*NPSAS* (Date)  
*Endorsed by* (Salutation) (FirstName) (LastName)  
 (Title)  
 List of agencies is (Institution)  
 printed here along (Address)  
 the left margin. (City), (State) (Zip)

Dear (Salutation) (LastName):

(Institution) has been selected to participate in the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC) conducted by the U.S. Department of Education’s National Center for Education Statistics (NCES) under a congressional mandate to gather information from postsecondary institutions on how students and their families finance postsecondary education.

**The chief administrative officer of your institution, <CA name>, has designated you as your institution’s coordinator for the NPSAS:18-AC institution data collection.**

NPSAS is a very important source of information for Congress, policymakers, states, and institutions in informing the effectiveness of federal, state, and institution financial aid programs. The quality and affordability of postsecondary education are central concerns for students and their families. The data collected from student records provide much-needed information about today’s college students as they begin, leave, and reenter postsecondary education; transfer between institutions; and complete programs at all levels of institutions. Additionally, for the first time, in addition to federal financial aid estimates, NPSAS will collect data to generate state-level financial aid estimates for undergraduate students to inform states’ policies and planning. Your participation is vital in ensuring that the data collected accurately represent the undergraduate students in your state.

Recognizing that NCES data collection requests add to the workload of institution staff tasked with providing the requested data, NCES developed the secure Postsecondary Data Portal (PDP) website, now a single location through which institutions can provide the student data required by any and all NCES postsecondary sample-based data collections. You may be aware, for example, that NCES is currently collecting the transcripts of participants in the 2011–12 Beginning Postsecondary Students Longitudinal Study (BPS:12) through the PDP. Having the PDP available means institution staff only need to learn the layout and functionality of one system, instead of having to learn a different system for every study.

As coordinator, you will be asked to:

- Complete the brief Institution Registration Page on the NCES Postsecondary Data Portal (PDP) website or by telephone within the next few weeks. We will schedule data collection for your institution based on the information you provide.
- Oversee the preparation of a list of students enrolled at your institution. The list will be used to draw a sample of students from your institution for NPSAS:18-AC.
- Complete a web-based program (or prepare data files) providing institution records on such



information as enrollment status, demographic characteristics, and financial assistance provided for the sampled students.

After the data are collected, we will provide a data feedback report to participating institutions that allows staff to see how their institution compares to financial aid estimates at the sector, state, and/or national levels (depending on response rates).

As coordinator, you may access the pages of the PDP that contain student-level information. If additional staff at your institution will be providing data, you need to add them as users. After logging in, click on Manage My Users and follow the instructions to add additional users and send them their login information via e-mail through the PDP website.

The enclosed brochure and project timeline detail our data collection procedures and the laws and procedures safeguarding the confidentiality of the information collected. Another letter or e-mail will be sent to you, requesting a list of enrolled students, before the due date established for your institution. Enrollment lists will be collected April through August 2018. A specific due date will be determined based on your institution's term structure. The NPSAS:18-AC and BPS:12 data collections are being administered for NCES by RTI International, a nonprofit research organization. A project representative will call you in the next few days to ensure that you have received this notification and to answer any questions you may have.

Additional information, including reports based on data from previous NPSAS studies, is available on the PDP website: <https://surveys.nces.ed.gov/portal>. If you have questions about the study or procedures, please contact RTI's Institution Records Coordinator, Tiffany Mattox, at 1-855-500-1441 or via e-mail at [PortalHelp@rti.org](mailto:PortalHelp@rti.org). If you have any comments or general feedback that you would like to provide to NCES about this or any other data collection, please contact Sean Simone, PhD, Project Officer, NPSAS:18-AC, at 202-245-7631 (e-mail address: [Sean.Simone@ed.gov](mailto:Sean.Simone@ed.gov)).

We look forward to your participation in this important study.

Sincerely,

(electronic signature)

*Signature block for NCES staff*  
National Center for Education Statistics

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

Your user name: (UserID)

Your temporary password: (Password)

Enclosures

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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 1850-0666. The time required to complete this information collection is estimated to average approximately 25 hours 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 information collection, or any comments or concerns regarding the status of your individual submission of these data, please write directly to: Postsecondary Data Portal studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.


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## Postsecondary Data Portal Bookmark

### Front



The central hub for NCES sample studies  
[surveys.nces.ed.gov/portal](https://surveys.nces.ed.gov/portal)



 Provide institution data  
 Learn about NCES sample studies  
 Explore datasets and analysis tools



The central hub for NCES sample studies  
[surveys.nces.ed.gov/portal](https://surveys.nces.ed.gov/portal)



2018 Studies & Data Collections

MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
HSL:09 Transcripts Collection (PETS)									
BPS:12 Transcripts Collection (PETS)									
NPSAS:18-AC Enrollment List Collection									
NPSAS:18-AC Student Records Data Collection									
IPEDS*									

\*IPEDS information is for reference only. IPEDS data are not collected through the PDP.

## NPSAS:18-AC Flyer



**ies** NATIONAL CENTER FOR  
EDUCATION STATISTICS  
Institute of Education Sciences

# The Next NPSAS

**2017–18 National Postsecondary Student Aid Study,  
Administrative Collection (NPSAS:18-AC)**



### Enhancements include:

More current national data

State-level estimates

Analysis flexibility

Data feedback reports for participating institutions



NPSAS provides a comprehensive research  
dataset used to analyze student financial aid  
and inform public policy

[nces.ed.gov/surveys/npsas](https://nces.ed.gov/surveys/npsas)

NCES 2018-492

Financial aid

Completion and degree attainment

Debt and repayment

Outcomes and experiences

## IMPORTANT ISSUES NEED POWERFUL DATA

National Center for Education Statistics (NCES) postsecondary education studies paint a descriptive portrait of U.S. higher education students and provide a window into their education, professional, and life experiences.

### NPSAS

**National Postsecondary Student Aid Study**

Student financial aid and demographics

### BPS

**Beginning Postsecondary Students Longitudinal Study**

Persistence and attainment of first-time beginning students

### B&B

**Baccalaureate and Beyond Longitudinal Study**

Outcomes and experiences of bachelor's degree recipients

### PETS

**Postsecondary Education Transcript Studies**

Relationships among postsecondary choices, experiences, and outcomes

### DataLab

Powerful yet intuitive analysis tools with more than 30 NCES datasets

PowerStats QuickStats TrendStats



**ies**

NATIONAL CENTER FOR  
EDUCATION STATISTICS  
Institute of Education Sciences

Learn more at the Postsecondary Data Portal (PDP):

[surveys.nces.ed.gov/portal](https://surveys.nces.ed.gov/portal)

## Coordinator Enrollment List Request Letter and E-mail

*NPSAS* (Date)  
*Endorsed by* (Salutation) (FirstName) (LastName)  
 (Title)  
 List of agencies is (Institution)  
 printed here along (Address)  
 the left margin. (City), (State) (Zip)

### Student Enrollment List Due: (Date)

Dear (Salutation) (LastName),

We are pleased that (Institution) has agreed to participate in the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC), which is conducted by the U.S. Department of Education’s National Center for Education Statistics (NCES). NCES is mandated by Congress to conduct this important study on how students and their families finance their postsecondary education. This NPSAS is different from previous ones, as it will provide both state and federal financial aid estimates. Data collection for this study is being administered for NCES by RTI International.

**As you know from our previous letter, you have been designated as your institution’s coordinator for the NPSAS:18-AC.** We look forward to working with you on this important research effort and are available to answer any questions you may have.

As the coordinator, we ask you to oversee completion of the following remaining tasks:

- Oversee the preparation of a list of students enrolled at your institution during the 2017-18 academic year and submit the list by the deadline below. The list of students will be used to draw a sample of students from your institution for participation in the study.
- Provide student records data for the sampled students—such as enrollment status, demographic characteristics, and financial aid—by uploading data files, keying data, or a combination of both through our secure web interface. After your list of enrolled students is submitted, we will contact you to confirm a due date for your student records data.

**The initial due date for providing your student enrollment list is (Date).** Complete specifications for compiling this list and uploading it to the secure website are provided online at the PDP (<https://surveys.nces.ed.gov/portal>). If you are unable to meet your institution’s deadline or have any questions about the information requested for the student list, please contact the Help Desk at 1-855-500-1441.

The PDP provides complete instructions for participation, including a description of the laws and procedures safeguarding the confidentiality of information collected. Additional information, including reports based on data from previous NPSAS studies, is also available there. Be assured that 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).

After the data are collected, we will provide a data feedback report to participating institutions that allows staff to see how their institution compares to financial aid estimates at the sector, state, and/or national levels (depending on responses rates).

If you have questions about the study or procedures, please contact Tiffany Mattox, NPSAS:18-AC Institution Records Coordinator, at 1-855-500-1441 or via e-mail at [EMAIL ADDRESS]. If you have any comments or general feedback that you would like to provide to NCES about this or any other data collection, please contact Sean Simone, PhD, Project Officer, NPSAS:18-AC, at 202-245-7631 (e-mail address: [Sean.Simone@ed.gov](mailto:Sean.Simone@ed.gov)).

Thank you for your cooperation.

Sincerely,

(electronic signature)

Peter Siegel  
Director, NPSAS:18-AC  
Center for Education Surveys  
RTI International

(electronic signature)

Sean Simone, PhD.  
NCES Project Officer  
National Center for Education Statistics  
U.S. Department of Education

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

Your user ID: (User ID)

If you do not recall your password, click  
Forgot Password on the PDP.

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## Student Records Request Letter and E-mail

<date>

«salutation» «fname» «lname»

«Title»

«entity\_name»

«phys\_addr1»

«phys\_addr2»

«phys\_city», «phys\_state» «phys\_zip»

### Student Records Data Due: «expected\_Date\_curr»

Dear «salutation» «lname»,

Thank you for your continued participation in the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC). We have finished processing the student enrollment file you provided and have selected a random sample of «**samplesize**» students from your institution to participate in NPSAS. We now ask that you provide student record data for your sampled students, using the secure Postsecondary Data Portal (PDP), on or before «**duedate**».

The PDP is available at <https://surveys.nces.ed.gov/portal>. There you will find the list of your sampled students and details on what data we need to obtain for each. We have enclosed a *Quick Guide to Providing Student Records Data* describing how to access and use the site.

The PDP provides three methods for providing student data:

- Entering data directly into the web-based system;
- Downloading and completing an Excel template, which you then upload to the PDP; and
- Creating and uploading data files following the specifications on the PDP.

You may use just one mode, or a combination. Regardless of the method you choose, you will be able to review the provided data on a screen in the PDP.

Please be assured that the security of your students' data is of the utmost importance to us. All data are secured through password-protected access and Secure Sockets Layer (SSL) encryption. In addition, access to the list of students (and to the forms used to enter their data) will require authentication using a user name and unique password. If you are the coordinator, your username is printed below for your convenience. If you are not the coordinator for this collection, please contact him or her (<fillPCname> at your institution) to receive login credentials.

Soon, staff from RTI International will call you to confirm receipt of this material and the completion date for providing student records data. RTI's Help Desk staff will be available from 9:00 a.m. to 6:00 p.m. ET, Monday through Friday, to answer any questions you may have about the collection or about using the PDP. You may contact the Help Desk at 1-855-500-1441 toll free, or via e-mail at [PortalHelp@rti.org](mailto:PortalHelp@rti.org).

After the data are collected, we will provide a data feedback report to participating institutions that allows staff to see how their institution compares to financial aid estimates at the sector, state, and/or national levels (depending on responses rates).



Again, thank you for your continued participation in this important study.

Sincerely,

Sean Simone, PhD  
Project Officer, NPSAS:18-AC  
National Center for Education Statistics

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

Your user name: <fill>

If you do not recall your password, click  
Forgot Password on the PDP.

Enclosures

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NCES is authorized to conduct the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC) 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 1850-0666. The time required to complete this information collection is estimated to average approximately 25 hours 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 information collection, or any comments or concerns regarding the status of your individual submission of these data, please write directly to: Postsecondary Data Portal studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

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## Quick Guide to Providing Student Records Data

There are three steps for providing student records for the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC). To complete them, log in to the secure National Center for Education Statistics' Postsecondary Data Portal (PDP) website at <https://surveys.nces.ed.gov/portal>.

At the **GET STARTED** → prompt, enter the user name and password printed on the letter or e-mail you received from RTI.

*NOTE: To ensure the security of your student data, you must log off when you are going to be away from your computer and when you are finished with a data entry session.*

### 1. Provide Institution Information for Student Records

Before you begin entering student data, you will need to enter information about your institution.

- From the Task Menu, click [Provide Institution Information for Student Records](#).
- Enter the requested school term information (institutions with continuous enrollment and no terms/periods with defined start and end dates should leave the Terms section blank).
- Select the number of credits awarded for a standard academic course.
- Click the [Submit & Return to Task Menu](#) or the [Submit & Go to Next Section](#) button at the bottom of the page.

After you submit, the information can be viewed but not changed. The link on the Task Menu changes to [View Institution Information for Student Records](#) and the [Save](#) and [Submit](#) buttons on the Institution Information page disappear.

### 2. Review Sampled Student List

Review your list of sampled students and indicate if any are ineligible.

- From the Task Menu, click [Review Sampled Student List](#).
- Review the list, indicate if any students are ineligible for NPSAS, and click the [Submit & Return to Task Menu](#) or the [Submit & Go to Next Section](#) button.

After you submit, the information can be viewed but not changed. The link on the Task Menu changes to [View Sampled Student List](#), and the [Submit](#) buttons on the Sampled Student List page disappear. If you discover that a student is ineligible after submitting, please call the Help Desk.

### 3. Provide Student Record Information

The student-level data we are requesting include contact information as well as budget,

enrollment, and financial aid awarded during the study year (July 1, 2017–June 30, 2018).<sup>1</sup>

- From the Task Menu, click [Provide Student Record Information](#).
- On the Mode Selection page, select which mode you will use to provide data.

There are three options available to provide the information: entering data online, entering data offline and then uploading, or uploading data files. Each is described below.

### Option 1: Entering Data Online (Web Mode)

- Click [Web Mode](#).
- Select a student and section from the Web Mode Grid and begin keying.
- Save or finalize the section you completed using the buttons at the bottom of the section. [Save](#) allows you to leave and return to complete the section. [Finalize](#) saves and performs error checks and will highlight missing data and data values that are out of the expected range.
- After you have entered data for a section, you can either continue to another section for that student or select another student. To select another student, click the link [Back to Web Mode Grid](#) and click on a new student and section.
- Once you have completed entering all data for a student, click [Finalize \(Student Name\)](#) at the bottom of his or her web page.
- When you are done entering data for all students, or if you want to check on your progress, return to the Web Mode Grid page. The grid contains icons indicating the status of each section: not started, in progress, errors present, or complete.
- After you have entered all available data for all students, click [Finalize All Student Record Information](#) at the bottom of the Web Mode Grid page. You will no longer be able to edit or enter data.

### Option 2: Entering Data Offline and then Uploading (Excel Mode)

You may download an Excel template to key or cut and paste in the requested data and then upload the file.

- Click [Excel Mode](#).
- Check the “I agree” box in Step 1, and click [Download Excel Template](#). Save the file. For institutions with more than 100 sampled students, the template will generate overnight and be available to download the next day.

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<sup>1</sup> Further detail on the data requested may be found by logging in to the portal website, clicking [Reference Materials](#), and then viewing the [Student Records Collection Data Elements](#).

- For Step 2, complete the worksheets in the template corresponding to the student information, enrollment, budget, and financial aid data for your students.
- When keying is complete, click [Select File](#) in Step 3 and select your saved file to upload. The grid in Step 3 displays a list of each file you have uploaded. When a file is uploaded, it is checked for errors (such as values outside of expected ranges). If errors are detected, a [Show Errors](#) button will appear. Please view and correct any errors before attempting to upload the file again.
- Click [Review Your Data](#) in Step 4 to review your uploaded data in a grid.
- After you have successfully uploaded your file and are ready to submit final data, click [Finalize All Student Record Information](#) in Step 5. You will no longer be able to edit data.

### Option 3: Uploading Data Files (CSV Mode)

You or other staff at your institution can create and upload each of the four required comma-separated values (CSV) data files following our specifications.

- Click [CSV Mode](#).
- Click [Download CSV Specs](#) to view or save the specifications in Step 1.
- Click [Download List](#) to view or save the list of sampled students in Step 2.
- When a file is ready for upload, click on the tab for the type of file, such as [Enrollment](#), in Step 3. Click [Browse](#), select your saved file to upload, and click [Upload File](#). The grid in Step 3 displays a list of each file you have uploaded. When a file is uploaded, it is checked for errors (such as values outside of expected ranges). If errors are detected, a [Show Errors](#) button will appear. Please view and correct any errors before attempting to upload the file again.
- Click [Review Your Data](#) in Step 4 to review your uploaded data in a grid.
- After you have successfully uploaded your 4 files and are ready to submit final data, click [Finalize All Student Record Information](#) in Step 5. You will no longer be able to edit data.

Regardless of the mode you select, clicking the [Finalize All Student Record Information](#) button alerts us that we may begin processing your data and will generate an e-mail to you confirming submission of the data.

Additional information, including answers to frequently asked questions, is available on the PDP website, <https://surveys.nces.ed.gov/portal>. If you need assistance, please contact the Help Desk toll free at 1-855-500-1441 or via e-mail at [PortalHelp@rti.org](mailto:PortalHelp@rti.org).

## Reminder E-mail 1 for Various Tasks

Dear «salutation» «lname»:

I am writing to remind you about the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC), being carried out by RTI International on behalf of the National Center for Education Statistics (NCES). We ask that you please log on to the secure NCES Postsecondary Data Portal (PDP) and [fill: name a coordinator for data collection, complete the institution registration page, provide a list of enrolled students, provide institution record 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 NCES postsecondary sample studies.

After the data are collected, we will provide a data feedback report to participating institutions that allows staff to see how their institution compares to financial aid estimates at the sector, state, and/or national levels (depending on responses rates).

*If sending to the 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 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](mailto:PortalHelp@rti.org).

Thank you again for your cooperation.

Sincerely,

Peter Siegel

Director, NPSAS:18-AC

OMB Control Number: 1850-0666

Learn more about our confidentiality procedures at: <https://surveys.nces.ed.gov/portal>.

## Reminder E-mail 2 for Student Records

Dear «salutation» «lname»:

I am writing to remind you about the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC). By providing institution record data for the sampled students, you make an important contribution to research that will help legislators and researchers understand how students and their families meet the cost of education beyond high school and the relationship between these costs and persistence and attainment in education.

If you are currently preparing the data, thank you. We need representation of all types of institutions and students to compile the most valuable, accurate data. If you have not begun, please do so at your earliest convenience. After the data are collected, we will provide a data feedback report to participating institutions that allows staff to see how their institution compares to financial aid estimates at the sector, state, and/or national levels (depending on responses rates).

The secure National Center for Education Statistics (NCES) Postsecondary Data Portal (PDP) website is located at <https://surveys.nces.ed.gov/portal>.

*If sending to the 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 coordinator at your institution, <name>.

NPSAS:18-AC is being conducted by NCES, part of the U.S. Department of Education, with data being collected by RTI International, a nonprofit research organization.

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](mailto:PortalHelp@rti.org).

Thank you again for your cooperation.

Sincerely,

Peter Siegel

Director, NPSAS:18-AC

OMB Control Number: 1850-0666

Learn more about our confidentiality procedures at <https://surveys.nces.ed.gov/portal>.

## Thank You for Completing the Institution Registration Page E-mail

Dear «salutation» «lname»:

Thank you for completing the Institution Registration Page for the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC). We have set the due date for receiving a list of enrolled students from your institution as <date>. Prior to that date, we will send a request for the list to you. Please be on the lookout for that request in <month based on due date above>.

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](mailto:PortalHelp@rti.org).

Thank you so much for your continued support of the National Center for Education Statistics (NCES) sample studies.

Sincerely,

(Help Desk signature block)

OMB Control Number: 1850-0666

Learn more about our confidentiality procedures at <https://surveys.nces.ed.gov/portal>.

## E-mail to Touch Base Between Institution Registration Page Thank You and List Request

Dear «salutation» «lname»:

I wanted to touch base with you about the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC), which is conducted by the U.S. Department of Education's National Center for Education Statistics (NCES). We appreciate the steps you have taken thus far on this important study.

As mentioned in a previous email, we have set the initial due date for receiving a list of enrolled students from your institution as <date>. Prior to that date, we will send you a request for the list. There may be a considerable gap in time between your receiving this e-mail and receiving that request, but please be assured that we have not forgotten you or the need for your institution's data.

Sincerely,

(Help Desk signature block)

OMB Control Number: 1850-0666

Learn more about our confidentiality procedures at <https://surveys.nces.ed.gov/portal>.

## Thank You for List E-mail

Dear «salutation» «lname»:

Thank you for providing your institution's list of enrolled students to the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC). We recognize and appreciate the extra effort required of you and your colleagues to provide these valuable data. A representative from RTI International will contact you if there are any questions regarding your submission.

The next step in the process will be statistical sampling of a group of students from your enrollment list. We will then reach out to you to request student records data for the sampled students. Note that it may be many weeks before you receive that request.

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](mailto:PortalHelp@rti.org).

Thank you so much for your continued support of the National Center for Education Statistics (NCES) sample studies.

Sincerely,

(Help Desk signature block)

OMB Control Number: 1850-0666

Learn more about our confidentiality procedures at <https://surveys.nces.ed.gov/portal>.

## Touch Base Between List and Student Records E-mail

Dear «salutation» «lname»:

I wanted to touch base with you on the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC), which is conducted by the U.S. Department of Education's National Center for Education Statistics (NCES). We appreciate the steps you have taken thus far on this important study.

As mentioned in a previous e-mail, the next step in the process will be statistical sampling of a group of students from your enrollment list. We will then reach out to you to request student records data for the sampled students. Please be on the lookout for that request in <month based on list receipt date>.

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](mailto:PortalHelp@rti.org).

Thank you so much for your continued support of the National Center for Education Statistics (NCES) sample studies.

Sincerely,

(Help Desk signature block)

OMB Control Number: 1850-0666

Learn more about our confidentiality procedures at <https://surveys.nces.ed.gov/portal>.

## E-mail Granting Due Date Extension

Dear «salutation» «lname»:

Thank you for contacting us about an extension. We will gladly extend the due date for <SCHOOL NAME> to submit the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC)

data until <date>.

We hope this extension will help you to do everything possible to submit the data. The data from your institution are very important to NCES, and the amount of time and hard work it takes on the part of you and your staff to collect and submit this information is very much appreciated.

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](mailto:PortalHelp@rti.org). We will do everything we can to assist you.

We look forward to receiving your institution's data. Thank you again for your contribution to this important research effort.

Sincerely,

(Help Desk signature block)

OMB Control Number: 1850-0666

Learn more about our confidentiality procedures at <https://surveys.nces.ed.gov/portal>.

## Thank You for Student Records E-mail

Dear «salutation» «lname»:

Thank you for providing record data for students sampled for the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC). We recognize and appreciate the substantial extra effort required of you and your colleagues to provide these valuable data. A representative from RTI International will contact you if there are any questions regarding your submission.

After the collection ends, we will provide a data feedback report to participating institutions that allows staff to see how their institution compares to financial aid estimates at the sector, state, and/or national levels (depending on responses rates).

Thank you so much for your continued support of the National Center for Education Statistics (NCES) sample studies.

Sincerely,

Peter Siegel  
Director, NPSAS:18-AC

OMB Control Number: 1850-0666

Learn more about our confidentiality procedures at <https://surveys.nces.ed.gov/portal>.



## Letter to Nonrespondent Institutions

«cname»

«title»

«instname»

«Addr1» «Addr2»

«City», «st» «zip»

Dear «salutation» «lname»:

You are receiving this letter because we want to encourage your institution's participation in the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC). NPSAS:18-AC is conducted by the U.S. Department of Education's National Center for Education Statistics (NCES) under a congressional mandate to gather information from postsecondary institutions on how students and their families finance postsecondary education. Your participation is important to making this study a success.

NPSAS data play a key role in evaluating the effectiveness of federal financial aid programs in meeting the needs of students. The data are also useful to postsecondary institutions and researchers concerned with the needs of postsecondary students. NPSAS data appear in a wide array of publications and reports and are cited in journal and newspaper articles and in foundation policy briefs. The reports focus on a variety of topics, from describing the student population, financial aid use and debt accumulation, and education outcomes. We want to make sure these data accurately represent, and are available to, institutions like yours. After data collection ends, we will provide a data feedback report to participating institutions that allows staff to see how their institution compares to financial aid estimates at the sector, state, and/or national levels (depending on responses rates).

There are a variety of tools available for people who want to access NPSAS data through NCES's DataLab site (<https://nces.ed.gov/datalab>). PowerStats and QuickStats, for example, provide users with an interface for creating tables and conducting analyses with the prior NPSAS datasets. The College and Career Tables Library offers access to thousands of tables produced for NCES publications.

If you have any questions about accessing prior NPSAS data or your participation in NPSAS:18-AC, please contact the NPSAS Project Director, Peter Siegel, at [TOLL FREE NUMBER] or via e-mail at [EMAIL ADDRESS]. If you have any comments or general feedback that you would like to provide to NCES about this or any other data collection, please contact Sean Simone, PhD, Project Officer, NPSAS:18-AC, at 202-245-7631 (e-mail address: [Sean.Simone@ed.gov](mailto:Sean.Simone@ed.gov)).

Thank you again for your cooperation and interest. Let us know how we can assist you.

Sincerely,

(NCES staff person signature block)  
National Center for Education Statistics  
U.S. Department of Education

Enclosure

### Please log on and provide data at:

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

Your user name: «UnitID»

If you do not recall your password, click Forgot  
Password.

---

NCES is authorized to conduct the 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC) 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 1850-0666. The time required to complete this information collection is estimated to average approximately 25 hours 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 information collection, or any comments or concerns regarding the status of your individual submission of these data, please write directly to: Postsecondary Data Portal studies, National Center for Education Statistics, PCP, 550 12th St., SW, 4th floor, Washington, DC 20202.

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# Request to State Organizations to Encourage Institution Participation

*NPSAS*

*Endorsed by*

List of agencies is  
printed here along  
the left margin.

(Date)

(Salutation) (FirstName) (LastName)

(Title)

(Organization)

(Address)

(City), (State) (Zip)

Dear (Salutation) (LastName):

The National Center of Education Statistics within the U.S. Department of Education is pleased to announce a new study designed to provide state-level estimates on student financial aid. For the first time, State policymakers will have information on how State financial aid programs interact with Federal aid programs, track the State financial aid policies, and benchmark measures against other similar States. In order for this new study to be a success, we need your help!

The 2017-18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC) is currently in progress across institutions in all 50 States, Puerto Rico, and the District of Columbia. In [your State/the [fill the sector name] of your State], we are currently collecting student records from your institutions. However, the response rate from these institutions [is / may] not [be] sufficient to yield a representative sample in [your State/the [sector] of your State] to allow for the types of comparisons that State policymakers need.

Institution participation in NPSAS:18-AC is vital in ensuring that the data collected accurately represent the undergraduate students in (your state/the [fill sector name] sector of your state). Because we have not yet received data from all the institutions within [your State/the [sector] of your State], we are requesting that you reach out to them and encourage their participation. [For State Coordinating bodies or entities for which it is permissible to disclose the sampled institutions and contacts: Please email [EMAIL ADDRESS] if you would like information on which institutions have not yet responded.]

If you have any questions about the study, please contact Tiffany Mattox, NPSAS:18-AC Institution Records Coordinator, at 1-855-500-1441 or via e-mail at [PortalHelp@rti.org](mailto:PortalHelp@rti.org). If you have any comments or general feedback that you would like to provide to NCES about this or any other data collection, please contact Sean Simone, PhD, Project Officer, NPSAS:18-AC, at 202-245-7631 (e-mail address: [Sean.Simone@ed.gov](mailto:Sean.Simone@ed.gov)).

Thank you in advance for encouraging participation in this important study.

Sincerely,

(electronic signature)

NCES staffperson name

NCES staffperson title

Enclosures

[the words “your State” was replaced with “Puerto Rico” or “the District of Columbia” as appropriate]

# Confidentiality and Data Security Fact Sheet

## FACT SHEET: CONFIDENTIALITY LAWS AND

### THE 2017-18 NATIONAL POSTSECONDARY STUDENT AID STUDY, ADMINISTRATIVE COLLECTION

Your institution has been selected to participate in the 2017-18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC). NPSAS is designed to provide information on how students and their families meet the cost of education beyond high school. Lists of students provided by institutions will be used to select a sample of students who will be asked to complete a questionnaire online.

#### **Data Collected for NPSAS**

The information collected about students includes demographic information used for sampling (such as degree program); contact information; and personal identifiers (such as Social Security numbers and student IDs), which are used to unduplicate lists of students and to match students against federal financial aid records. The security of this information is, of course, of paramount importance to the U.S. Department of Education's National Center for Education Statistics (NCES) and its contractors, as well as to participating institutions and respondents. It is important for each institution sampled to be fully aware of the federal laws that both authorize the release of student information, and protect the confidentiality of record data and survey responses.

#### **Data Collected for NPSAS is Authorized by Congress**

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) authorize NCES to collect, acquire, compile, and disseminate full and complete statistics on the condition and progress of education, including postsecondary education. The provisions of ESRA can be found at the following website:  
<https://www.ed.gov/policy/rschstat/leg/edpicks.jhtml?src=ln>.

#### **Federal Law Protects the Confidentiality of Data Collected for NPSAS**

Both NCES and its contractor for NPSAS:18-AC, RTI International, follow strict procedures to protect the privacy and confidentiality of study participants. All RTI project staff members have signed confidentiality agreements and affidavits of nondisclosure. Any data are released to the public in aggregate form (e.g., statistical tables, graphs). All of the information provided by individuals and institutions 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). For more information on confidentiality and data security see  
<https://surveys.nces.ed.gov/Portal/Home/Confidentiality>.

#### **Federal Law Authorizes Release of Personally Identifiable Information to NCES and Its Agents**

NPSAS:18-AC seeks both directory and personally identifiable information on students from institutions. 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) authorize NCES and its current contractors (RTI International for NPSAS:18-AC) to gather information from students on pivotal areas of national concern. The data request for NPSAS fully conforms to the requirements of the Family Educational Rights and Privacy Act of 1974 (FERPA) [20 U.S.C. §1232g; 34 CFR Part 99]. FERPA is designed to protect the privacy rights of students and their families by providing consistent standards for the release of personally identifiable student and family information. NCES and its data collection agent for NPSAS:18-AC, RTI International, are explicitly authorized under an exception to FERPA's general consent rule (in which the right to consent is held by the student, regardless of age) to obtain student-level data from institutions. This exception provides for the collection of data on any eligible student, without prior consent, if the disclosure is to authorized representatives of the Secretary of Education [34 CFR §§ 99.31(a)(3) and 99.35]. Student data

are subject to strict protections that are adhered to by NCES and its contractor organizations. You can review this regulation on the U.S. Department of Education's website at <https://www2.ed.gov/policy/gen/reg/ferpa>. For questions regarding the applicability of FERPA to this study, school officials may contact the Family Policy Compliance Office (FPCO) at this e-mail address: [FERPA@ed.gov](mailto:FERPA@ed.gov).

### **Data Collected Are Stored Securely**

Both NCES and RTI International follow strict procedures to protect study participants' information. These procedures include obtaining signed confidentiality agreements from all personnel who will have access to individual identifiers, personnel training regarding the meaning of confidentiality, and controlled access to computer files.

All electronic data from institution records and students are carefully protected. Computer accounts used to access electronic data are password protected. Only project staff members with clearance from the study database manager are able to log on to these accounts. Personally identifying variables (e.g., name, address, and phone numbers) are kept separate from data variables such as educational experience or financial aid.

All hard-copy records are maintained in locked storage cabinets. A unique study identification variable (not the Social Security number or student ID) are created and maintained for each sampled student to protect against inadvertent disclosure of confidential data. Any data released to the general public (for example, statistical tables) are tailored so that it is not possible to identify specific individuals or institutions.

These confidentiality and data security protection procedures have been put in place to ensure that RTI International and its subcontractors comply with all privacy requirements, including:

1. The statement of work of each contract;
2. Family Educational Rights and Privacy Act (FERPA) of 1974 (20 U.S.C. §1232(g));
3. Privacy Act of 1974 (5 U.S.C. §552a);
4. Privacy Act Regulations (34 CFR Part 5b);
5. Computer Security Act of 1987;
6. U.S.A. Patriot Act of 2001 (P.L. 107-56);
7. Education Sciences Reform Act of 2002 (ESRA 2002, 20 U.S.C. §9573);
8. Confidential Information Protection and Statistical Efficiency Act of 2002;
9. E-Government Act of 2002, Title V, Subtitle A;
10. Cybersecurity Enhancement Act of 2015 (6 U.S.C. §151);
11. The U.S. Department of Education General Handbook for Information Technology Security General Support Systems and Major Applications Inventory Procedures (March 2005);
12. The U.S. Department of Education Incident Handling Procedures (February 2009);
13. The U.S. Department of Education, ACS Directive OM: 5-101, Contractor Employee Personnel Security Screenings;
14. NCES Statistical Standards; and
15. All new legislation that impacts the data collected through the contract for this study.

The data collection contractor, RTI International, complies with the U.S. Department of Education's IT security policy requirements as set forth in the Handbook for Information Assurance Security Policy and related procedures and guidance, as well as IT security requirements in the Federal Information Security Management Act (FISMA), Federal Information Processing Standards (FIPS) publications, Office of Management and Budget (OMB) Circulars, and the National Institute of Standards and Technology (NIST) standards and guidance. All data products and publications will also adhere to the NCES Statistical Standards, as described at the website: <https://nces.ed.gov/statprog/2012/>.

# Student Enrollment List Preparation Instructions

2017–18 National Postsecondary Student Aid Study, Administrative Collection

## STUDENT ENROLLMENT LIST PREPARATION INSTRUCTIONS

We realize that postsecondary institutions vary widely in their organizational structures and that some of the criteria presented below may not apply to your institution. Should you have any questions about these instructions, or whether students should be included on the list, we urge you to contact the NPSAS Help Desk:

- Phone: 1-855-500-1441
- E-mail: [EMAIL ADDRESS]

### Step 1: Determine Which Students to Include

Include all students enrolled at your institution at any time between  
*July 1, 2017 and April 30, 2018*

Your enrollment list should include students from all campuses, colleges, and schools, including graduate schools, reported under your IPEDS UNITID. Include students enrolled at any time between July 1, 2017, and April 30, 2018.

### NPSAS Study Eligibility Requirements

Only include students on the list if they meet all the eligibility requirements listed below.

1. The student must have been enrolled in at least one term or course of instruction that is one of the following:
  - an academic program; *or*
  - a course for credit that could be applied toward fulfilling the requirements for an academic degree; *or*
  - an occupational or vocational program that requires at least 3 months or 300 clock hours of instruction to receive a degree, certificate, or other formal award; *or*
  - noncredit remedial coursework *within a Title IV eligible program* (up to 30 semester or trimester hours, 45 quarter hours, or 900 clock hours). Students who are enrolled solely in a remedial program are not eligible.
2. The student was not enrolled concurrently in high school and your institution for the *entire* time he or she was enrolled at your institution. If the student completes high school and continues to be enrolled in a postsecondary course at your institution any time during the period specified in Step 1, the student is eligible.
3. The student was not enrolled in your institution during this *entire* period solely for the purpose of earning a general educational development (GED) credential or finishing another high school completion program. If the student completes such a program at your institution and then enrolls in another course of instruction there at any time during the above dates, the student is eligible.

4. The student did not drop out of your institution early enough to receive a *full refund* of their tuition.
5. The student did not pay tuition during these dates *solely* to a different institution.

## Step 2: Prepare Student Enrollment List

### Accepted File Types

You may choose to submit your Student Enrollment List as a comma-separated values (CSV) file or as an Excel spreadsheet. If you use another file type or layout, or codes other than those in table 1, please provide us with a layout of your list and a detailed description of the codes.

Please provide the information listed in the file layout, shown in table 1 below, for each eligible student. You may enter a blank space for missing values.

**Table 1. File layout for NPSAS student enrollment list: 2018**

Student data element	Code	Max field length
1. IPEDS UNITID		6
2. First name		100
3. Middle initial		50
4. Last name		100
5. Name suffix (e.g., Jr., Sr., III, etc.)		50
6. Student ID		25
7. Social Security Number (SSN)		9
8. Date of birth month (MM)		2
9. Date of birth day (DD)		2
10. Date of birth year (YYYY)		4
11. Degree program	1=Enrolled in undergraduate courses, not in a degree program 2=Undergraduate certificate or diploma (occupational or technical program) 3=Associate's degree 4=Bachelor's degree 5=Enrolled in graduate courses, not in a degree program 6=Post-baccalaureate certificate program 7=Dual bachelor's/master's degree 8=Master's degree program 9=Post-master's certificate 10=Doctoral degree - research/scholarship 11=Doctoral degree - professional practice 12=Doctoral degree – other -1=Unknown	2

See notes at end of table.

**Table 1. File layout for NPSAS student enrollment list: 2018—Continued**

Student data element	Code	Max field length
12. Class level	1=1st Year/Freshman 2=Sophomore 3=Junior 4=Senior 5=5th Year or higher undergraduate 6=Undergraduate (unclassified) 7=Student with bachelor's or advanced degree taking undergraduate courses 8=1st year graduate 9=Beyond 1st year graduate 10=Graduate (unclassified) -1=Unknown	2
13. High school completion date month (MM)		2
14. High school completion date day (DD)		2
15. High school completion date year (YYYY)		4
16. Student was enrolled in high school (or a high school completion program) during 2017-18	1 = Student is or was enrolled in high school between July 1, 2017 and June 30, 2018 0 = Student was not enrolled in high school between July 1, 2017 and June 30, 2018 -1 = Unknown	2
17. Date of first enrollment month (MM)		2
18. Date of first enrollment day (DD)		2
19. Date of first enrollment year (YYYY)		4
20. Student's first major <sup>1</sup>		30
21. Classification of Instructional Programs (CIP) code for student's first major <sup>2</sup>	Format = NNNNNN (no decimal)	6
22. Student's second major		30
23. Classification of Instructional Programs (CIP) code for student's second major	Format = NNNNNN	7
24. Local address 1		100
25. Local address 2		100
26. Local city		100
27. Local state		2
28. Local ZIP code		9
29. Local phone number – area code		3
30. Local phone number – without area code		7
31. Cell phone number – area code		3
32. Cell phone number – without area code		7
33. Campus e-mail		100
34. Permanent address 1		100
35. Permanent address 2		100
36. Permanent city		100
37. Permanent state		2
38. Permanent country (if not U.S.)		50
39. Permanent ZIP code		25

See notes at end of table.



**Table 1. File layout for NPSAS student enrollment list: 2018—Continued**

Student data element	Code	Max field length
40. Permanent phone number – country code (if not U.S.)		4
41. Permanent phone number – area code		5
42. Permanent phone number – without area code		25
43. Permanent e-mail		100
44. Veteran status	1 = U.S. military veteran 0 = Not a U.S. military veteran -1 = Unknown	2
45. Ethnicity	0 = Not Hispanic or Latino 1 = Hispanic or Latino -1 = Unknown	2
46. Race: White	1 = Yes 0 = No	1
47. Race: Black or African American	1 = Yes 0 = No	1
48. Race: Asian	1 = Yes 0 = No	1
49. Race: American Indian or Alaska Native	1 = Yes 0 = No	1
50. Race: Native Hawaiian or Pacific Islander	1 = Yes 0 = No	1
51. Sex	0 = Male 1 = Female	1

<sup>1</sup> Please provide an explanation of any abbreviations or codes used for major.

<sup>2</sup> The Classification of Instructional Programs (CIP) provides a taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completions. For more information about the Classification of Instructional Programs, see <https://nces.ed.gov/ipeds/cipcode/>.

### Step 3: Check for Errors

Please take the time to review your list for errors, including the following common errors:

- Contact information is not associated with the correct name because rows shifted during sorting or keying.
- Degree program (Field 11) is not provided for all students.
- Eligible students are omitted from the list because they attend campus/school other than the main campus (e.g., law school, medical school). These students *should* be included if they are reported under your IPEDS UNITID.
- Students who are or have been concurrently enrolled in high school or a high school completion program are included or omitted erroneously. Students *should* be included if they complete high school or a high school completion program and continue to be enrolled in a postsecondary course at your institution any time during the period between July 1, 2017, and April 30, 2018. Students who remain concurrently enrolled in high school or who completed high school and did not enroll in a postsecondary course at your institution as of April 30, 2018 should be omitted from your list.

## Step 4: Provide Preparer's Contact Information

When you submit your Student Enrollment List on the secure Postsecondary Data Portal (<https://surveys.nces.ed.gov/portal>), we ask that you provide the following information. (It will expedite the process if you have this information on hand when you log in to submit your list).

1. **Date the list was prepared:** Please record the date your student list was prepared, even if it is not the same as the date you submit the list.
2. **Contact information:** Please provide the **name, department, e-mail address, and phone number** for all individuals responsible for preparing your Student Enrollment List. We will contact them only if we have questions.
3. **Comments:** Provide any details that will clarify the layout of the enrollment list you are submitting, as well as any information necessary to correctly interpret the data provided. Define any special codes or abbreviations (e.g., major codes, class levels).
4. **Exclusion counts:** Provide counts of the students that were excluded from your Student Enrollment List by these categories: student did not meet the NPSAS eligibility requirements, student requested that their information not be provided to external parties, or student was excluded for any other reason.

## Step 5: Submit Enrollment List

### Upload to the NCES Postsecondary Data Portal Website

Please upload your completed list to the secure NCES Postsecondary Data Portal website (<https://surveys.nces.ed.gov/portal>). **Uploading is the most secure and most efficient method for submitting your list.**

After logging in, click “Provide Your Student Enrollment List,” and follow the on-screen instructions. You will be asked to provide your Student Enrollment List as well as the information you gathered in Step 4.

**If you are unable to upload your list, please contact us to make other arrangements.**

**For assistance, please contact the NPSAS Help Desk at  
1-855-500-1441 or [EMAIL ADDRESS].**

## Disclosure Notice

Information from student records for this individual has been provided to RTI International, a data collection agent for the 2017-18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC), 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 NPSAS:18-AC 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).

March 2018

NPSAS:18-AC OMB # 1850-0666; Expiration Date: (insert date)

# Student Records Handbook

## Getting Started

You will use the Postsecondary Data Portal, or PDP, to submit student records data for NPSAS:18-AC. To get started, go to <https://surveys.nces.ed.gov/portal>. Use the credentials you were provided to log in to the PDP. If you need help logging in, please contact the Help Desk.

After your initial log in, you will be prompted to update your password as a security measure.

[image of log in box]

## The Task Menu

The Task Menu will guide you through the steps of providing student records data. The [black checkmark] symbol will indicate steps you have already completed. The [green arrow] symbol will indicate the step(s) you should complete next.

[image of Task Menu]

## The Institution Information Page (IIP)

The main purpose of the IIP is to collect information about your institution's term structure. This information is important because it will be used later to collect information about students' enrollment statuses (e.g., full-time, half-time) during each term in the academic year.

You will be asked to provide the term name, start date, and end date for each term in the 2017–18 academic year.

[image of term entry boxes]

The terms you enter on the IIP will be filled in on later pages. You will be asked to select the enrollment status for each term for each student.

[image of enrollment status item from student records instrument]

If your institution does not have distinct terms, and instead enrolls students continuously throughout the year, you have the option of reporting enrollment status by month instead of entering terms.

[image of “report by month” option]

Note that the IIP cannot be changed once you submit.

## Selecting a Mode

We offer three modes for providing student records data. You can choose any mode and switch modes at any time.

[image of mode selection buttons]

### Web mode

In web mode, data are entered online, one student at a time, using drop-down and text entry fields. This option is ideal for users who aren't familiar with programming data files and those who prefer

not to compile data from different sources into one file. You can also use web mode to edit data that you have already provided in Excel or CSV mode. Web mode is an ideal mode for institutions with a small number of sampled students.

### **Excel mode**

In Excel mode, you download a pre-formatted Excel spreadsheet from the Portal website, fill it out offline, and upload the completed file to the Portal. You can hand key data into the Excel fields, or copy and paste data from other reports. Excel mode is recommended for institutions with 20 to 100 sampled students.

### **CSV mode**

In CSV mode, you will download customized file specifications from the Portal, create your comma separated value (.csv) files offline, and upload the files to the Portal. CSV mode is best for institutions with large student samples, and those with the ability to program data files.

### **Web mode**

When you select web mode, you will first see the web mode grid. This grid displays a list of your institution's sampled students and your progress providing data for each section. The icons indicate whether each section is not started [icon], in progress [icon], errors present [icon], or complete [icon].

Select a student from the list and click his or her name to begin entering data.

[image of web mode grid]

There are four data sections: General Student Information, Enrollment, Budget, and Financial Aid. To advance to the next section of data entry, click the buttons at the top of the page (1). If you want to jump directly to another student's data entry page, you can enter their name or ID into the search bar (2).

[image of data entry page]

Many items in the survey also include clarifying help text. When [blue icon] is visible next to an item, that lets you know help text is available for that item, that, when clicked, will appear like the text box below (3).

[image of help text pop-up]

When you are done entering data for all students, or if you want to check on your progress, return to the Web Mode Grid page. After you have entered all available data for all students, click Finalize All Student Record Information at the bottom of the Web Mode Grid page. You will no longer be able to edit or enter data.

### **Excel mode**

The Excel mode page includes numbered steps to guide you through the process of providing data using Excel mode.

Prior to downloading the Excel template, you must check the “I agree” box to indicate that you agree to safeguard the file. Once you check the box, you will be able to click the **Download Excel Template** button and download the file.

Any data that you have previously provided will be pre-filled in the template.

There are six tabs in the file:

- 1) Instructions for uploading the file.
- 2) Item Codebook, which lists all the requested data elements and the valid response options for each item.
- 3-6) Student data sections: General Student Information, Enrollment, Budget, and Financial Aid.

[image of tabs]

The file is restricted to prevent edits that could damage the file or misalign data between students. You won’t be able to add or remove columns or rows, filter, or sort.

Enter your student record data into the template by keying, selecting drop-down options, or copying and pasting. Always save your file in a secure location.

[image of Excel template]

When you’ve finished entering data, return to the Excel mode page on the Portal and upload your completed file. Do not email your template to the help desk! The upload attempts grid displays a list of each file you have uploaded and the status of the upload.

[image of upload attempts list]

If any errors are detected, error messages will appear in the error log.

[image of error log]

You can upload as many Excel templates as needed – if your file had errors, revise the file and upload again. The most recent file will overwrite previous uploads.

When you have finished uploading data for all students, click **Finalize All Student Record Data**. Once you finalize, you will no longer be able to make changes.

## CSV mode

The CSV mode page includes numbered steps to guide you through the process of providing data using CSV mode.

You will download two files:

- 1) The list of students sampled from your institution
- 2) CSV file specifications document

Prior to downloading the list of sampled students, you must check the “I agree” box to indicate that you agree to safeguard the file. Once you check the box, you will be able to click the **Download Student List** button and download the file.

The file specifications will provide file layout instructions for creating four CSV files: the General Student Information file, the Enrollment file, the Budget file, and the Financial Aid file. The file specifications indicate the number of fields that are required for each file, the order in which data elements should be submitted, and the valid values for each data element.

[image of file specs]

It is extremely important that you follow the file specifications exactly. If your CSV files don't have the correct number of fields, the data will not be read into the Portal. If you find yourself needing to skip a data element, be sure to include a comma as a placeholder for that data element.

[image of sample CSV file]

When you've finished entering data, return to the CSV mode page on the Portal and upload your completed files. Do not email your files to the help desk! There are separate upload areas for each of the four file types; be sure you upload them in the correct section.

[image of upload area]

The upload attempts grid displays a list of each file you have uploaded and the status of the upload.

[image of upload attempts list]

If any errors are detected, error messages will appear in the error log.

[image of error log]

You can upload as many CSV files as needed – if your file has errors, revise the file and upload again. The most recent file will overwrite previous uploads.

When you have finished uploading data for all students, click **Finalize All Student Record Data**. Once you finalize, you will no longer be able make changes.

### **Need Help?**

Contact the Help Desk toll free at 1-855-500-1441 or via e-mail at [EMAIL ADDRESS].

## Student Records Item Overview Handout

Overview of Student Records Items	
General Student Information	
<b>Personal Information</b>	<b>Local Contact Information</b>
Institute ID (IPEDS ID)	Address Line 1
Study ID	Address Line 2
First Name	City
Middle Name	State
Last Name	ZIP
Suffix	<b>Phone</b>
Social Security Number (SSN)	Phone 1
Date of Birth	Phone 1 Type
Sex	Phone 2
<b>Marital Status and Spouse Information</b>	Phone 2 Type
Marital Status	<b>Email</b>
Maiden Name	Campus Email Address
Spouse First Name	Personal Email Address
Spouse Middle Name	<b>Parent Contact Information</b>
Spouse Last Name	Parent's Name
<b>Citizenship Status</b>	Parent's Address
Citizenship Status	Parent's Email Address
<b>Veteran Status</b>	Parent's Phone
Veteran of U.S. Armed Forces?	Parent's Cell Phone
<b>High School Information</b>	Parent's International Phone
High School Completion Type	<b>Other Contact Information</b>
High School Completion Year	Other Contact's Name
<b>Ethnicity and Race (for race, choose one or more)</b>	Relationship of other contact to student
Ethnicity	Other Contact's Address
Race: White	Other Contact's Email Address
Race: Black or African American	Other Contact's Phone
Race: Asian	Other Contact's Cell Phone
Race: American Indian or Alaska Native	
Race: Native Hawaiian or Other Pacific Islander	
<b>Permanent Contact Information</b>	
Permanent Address	
Is the student a permanent resident of [the state in which your institution is located]?	



## Overview of Student Records Items—continued

### Enrollment

Initial Enrollment	Test Scores
First Enrolled at Institution Date	ACT English Score
Last Enrolled at Institution Date	ACT Mathematics Score
First-time Beginning Student?	ACT Reading Score
Accepted Transfer Credit?	ACT Science Score
Remedial Courses Taken?	ACT Composite Score
Bachelor' Degree	SAT Critical Reading Score
Ever Received Bachelor's Degree?	SAT Mathematics Score
Bachelor's Degree Received Date	SAT Writing Score
Degree Program and Progress	Clock Hours
Program/Degree	Total Number of Clock Hours in Program
Graduate Degree Type	Cumulative Clock Hours Completed
Class Level	Credit Hours
Degree Completed Date	Total Number of Credit Hours in Program
Expected to Complete Degree Requirements by 6/30/17?	Cumulative Credit Hours Completed
Cumulative (Unweighted) GPA	Tuition Charged
Major	Total Tuition and Required Fees CHARGED
First Major	Residency for Tuition Purposes
First Major CIP Code	Enrollment by Term
Second Major	Enrollment Status (for up to 12 terms)
Second Major CIP Code	Credit Units (for up to 12 terms)
Major Undeclared?	

### Budget

Budget Period	Transportation
Student Residence	Computer/Technology
Tuition/Fees	Health Insurance
Room and Board	All Other
Books/Supplies	Budgeted Total Cost of Attendance

## Overview of Student Records Items—continued

### Financial Aid

#### Satisfactory Academic Progress

Placed on Financial Aid Warning

Placed on Financial Aid Probation

Financial Aid Ineligibility

#### Federal Aid

Student had federal aid for the financial aid year?

Pell Grant

Subsidized Direct/Stafford Loan

Unsubsidized Direct/Stafford Loan

Parent PLUS Loan

Graduate PLUS Loan

Federal TEACH Grant

Perkins Loan

Federal SEOG Grant

Federal Work Study AWARDED

Iraq &amp; Afghanistan Service Grant

Veterans Benefit

#### State Aid (up to 3 awards)

Student had state aid for the financial aid year?

State Program Name

State Program Type

State Program Amount

#### Institution Aid (up to 3 awards)

Student had institution aid for the financial aid year?

Institution Program Name

Institution Program Type

Institution Program Amount

#### Private Aid or Other Government Aid (up to 3 awards)

Student had private aid or other government aid for the financial aid year?

Private Aid or Other Government Aid Name

Private Aid or Other Government Aid Type

Private Aid or Other Government Aid Amount

#### Other Aid (up to 3 awards)

Student had other aid for the financial aid year?

Other Aid Name

Other Aid Type

Other Aid Source

Other Aid Amount

# **Appendix I. Data Collection Outcomes and State Representation Maps**

# List of Tables

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**Table I-1. Participation rates for institutions providing enrollment lists and student records, by institution stratum and state: 2017–18**

State	Institution stratum <sup>1</sup>							
	Institutions provided enrollment list				Institutions provided student records			
	All sectors	Public 2-year	Public 4-year	All other sectors	All sectors	Public 2-year	Public 4-year	All other sectors
Alabama	63.6	87.0	71.4	41.4	90.5	90.0	100.0	83.3
Alaska <sup>2</sup>	77.8	†	100.0	60.0	100.0	†	100.0	100.0
Arizona	62.1	85.0	70.0	42.9	97.2	100.0	100.0	91.7
Arkansas	71.4	90.9	63.6	60.0	95.6	90.0	100.0	100.0
California	63.9	60.7	73.9	60.0	75.2	69.2	76.5	94.4
Colorado	73.3	92.9	87.5	56.7	95.5	100.0	100.0	88.2
Connecticut	67.3	76.9	55.6	66.7	82.9	80.0	80.0	85.0
Delaware <sup>2</sup>	75.0	†	100.0	69.2	83.3	†	100.0	77.8
District of Columbia <sup>2</sup>	72.7	†	100.0	70.0	75.0	†	100.0	71.4
Florida	71.6	65.7	87.2	57.1	84.9	78.3	88.2	87.5
Georgia	68.8	39.1	96.3	66.7	90.9	77.8	100.0	85.0
Hawaii	75.0	100.0	100.0	57.1	88.9	100.0	100.0	75.0
Idaho	63.9	75.0	75.0	60.7	78.3	66.7	100.0	76.5
Illinois	77.5	77.1	91.7	72.4	92.8	94.6	100.0	85.7
Indiana	88.6	100.0	100.0	82.8	82.1	100.0	100.0	70.8
Iowa	91.8	93.8	100.0	90.0	80.0	86.7	100.0	74.1
Kansas	65.6	64.0	87.5	60.7	92.5	81.3	100.0	100.0
Kentucky	73.6	68.8	87.5	72.4	94.9	100.0	100.0	90.5
Louisiana	72.1	73.3	82.4	65.5	90.9	90.9	92.9	89.5
Maine	73.0	71.4	62.5	77.3	74.1	80.0	60.0	76.5
Maryland	64.4	68.8	84.6	53.3	81.6	54.5	100.0	87.5
Massachusetts	83.6	75.0	93.3	83.3	96.1	91.7	100.0	96.0
Michigan	75.0	92.0	90.5	50.0	91.2	87.0	94.7	93.3
Minnesota	88.7	93.5	100.0	78.6	96.8	100.0	100.0	90.9
Mississippi	55.4	73.3	87.5	39.4	80.6	54.5	100.0	92.3
Missouri	78.0	64.7	84.6	82.8	91.3	90.9	100.0	87.5
Montana	64.5	72.7	83.3	50.0	75.0	62.5	100.0	71.4
Nebraska	73.5	75.0	42.9	79.4	88.9	100.0	100.0	85.2
Nevada	64.1	100.0	83.3	59.4	72.0	100.0	60.0	73.7
New Hampshire	69.2	85.7	83.3	61.5	66.7	16.7	100.0	75.0
New Jersey	71.0	78.9	92.3	56.7	84.1	80.0	75.0	94.1
New Mexico	73.9	84.2	77.8	61.1	76.5	87.5	57.1	72.7
New York	82.9	81.6	90.7	73.3	91.3	90.3	94.9	86.4
North Carolina	76.2	72.9	87.5	76.7	91.3	90.7	100.0	87.0
North Dakota	55.2	40.0	88.9	40.0	68.8	100.0	50.0	83.3
Ohio	78.0	82.9	82.9	66.7	79.5	82.8	69.0	90.0
Oklahoma	54.3	62.5	76.5	34.5	89.5	93.3	92.3	80.0
Oregon	67.3	70.6	77.8	62.1	78.4	75.0	71.4	83.3
Pennsylvania	75.0	70.6	82.2	66.7	92.8	91.7	91.9	95.0
Puerto Rico	70.8	20.0	50.0	89.7	82.4	100.0	71.4	84.6
Rhode Island	77.3	100.0	100.0	73.7	64.7	#	100.0	64.3
South Carolina	66.7	45.0	84.6	73.3	90.5	77.8	100.0	90.9
South Dakota	71.4	80.0	85.7	62.5	80.0	75.0	83.3	80.0

See notes at end of table.

**Table I-1. Participation rates for institutions providing enrollment lists and student records, by institution stratum and state: 2017–18—Continued**

State	Institutions provided enrollment list				Institutions provided student records			
	All sectors	Public 2-year	Public 4-year	All other sectors	All sectors	Public 2-year	Public 4-year	All other sectors
Tennessee	66.2	71.1	50.0	65.5	84.3	77.8	100.0	89.5
Texas	78.8	78.3	91.5	60.0	88.9	80.9	97.7	88.9
Utah	63.4	100.0	100.0	50.0	96.2	100.0	100.0	93.3
Vermont	56.0	100.0	80.0	47.4	85.7	100.0	75.0	88.9
Virginia	72.9	70.8	81.3	70.0	88.2	82.4	92.3	90.5
Washington	77.8	75.0	64.5	93.1	83.9	88.9	80.0	85.2
West Virginia	60.4	54.5	100.0	44.8	87.5	83.3	84.6	92.3
Wisconsin	75.4	87.5	86.7	63.3	80.4	85.7	84.6	73.7
Wyoming	60.0	57.1	100.0	50.0	83.3	75.0	100.0	100.0

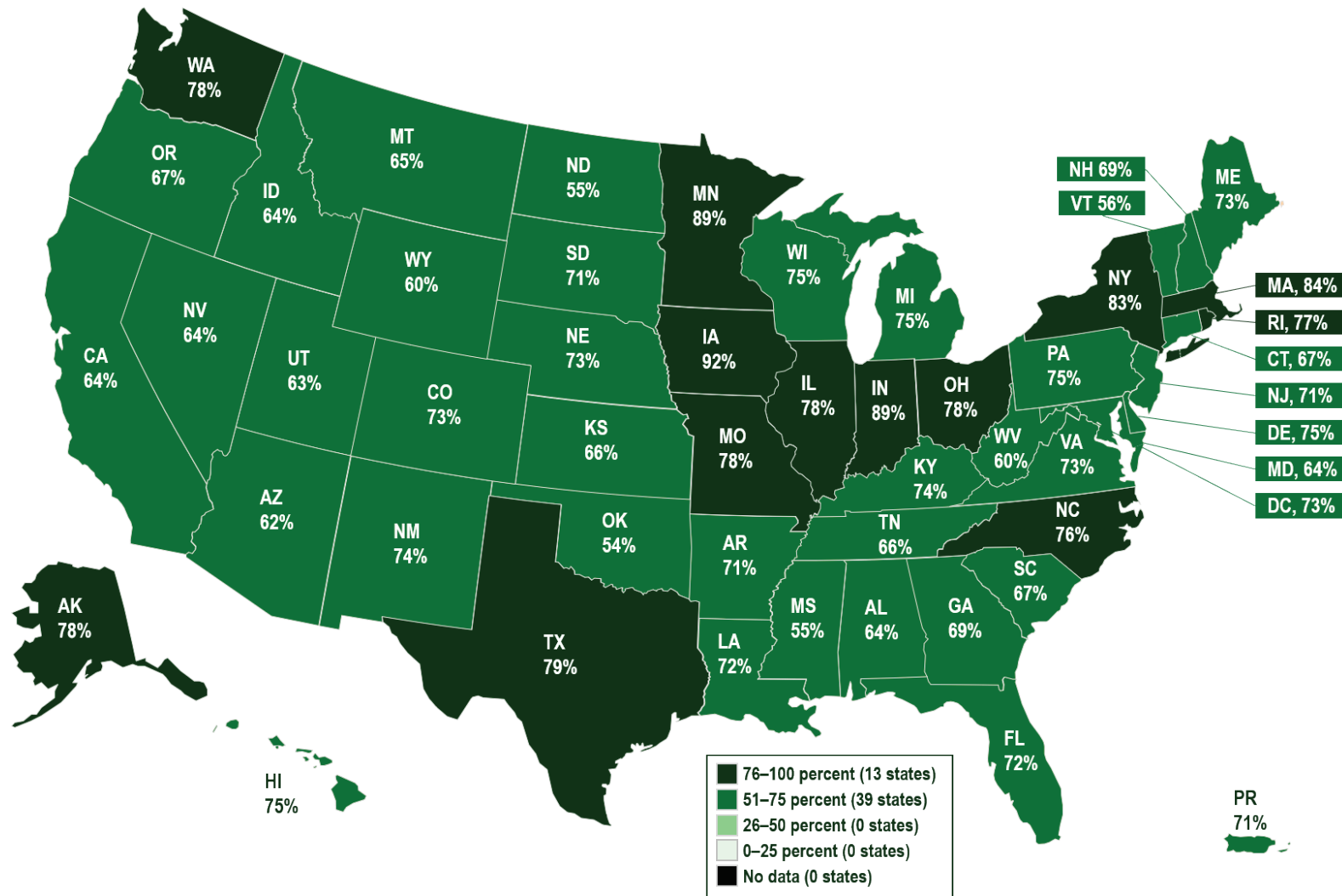
† Not applicable.

# Rounds to zero.

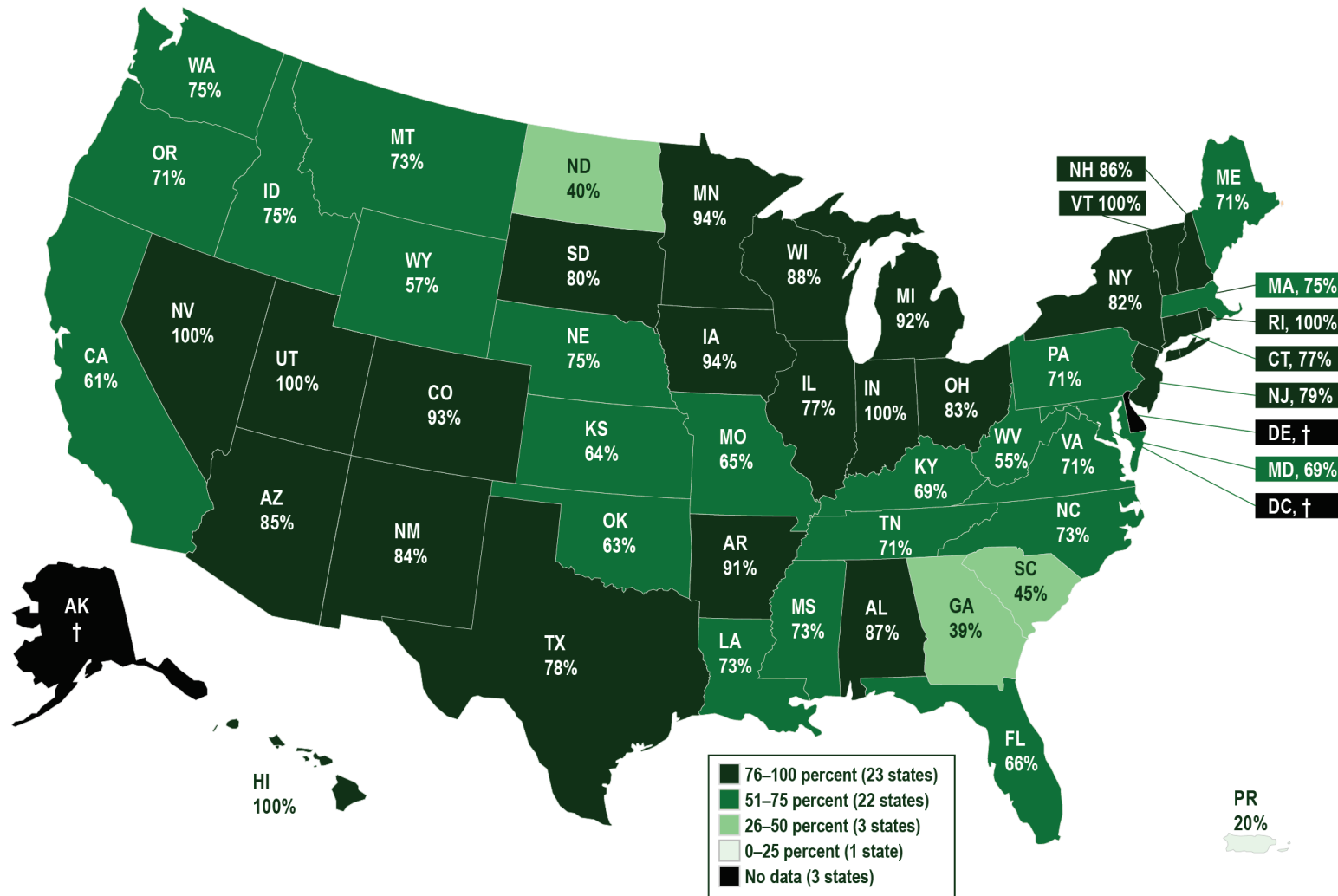
<sup>1</sup> Institution stratum reflects institutional categorization as determined from the 2015–16 Integrated Postsecondary Education Data System (IPEDS) files.<sup>2</sup> There were no public 2-year institutions in Alaska, Delaware, or the District of Columbia.

NOTE: For the purposes of this table, Puerto Rico and District of Columbia are referred to as “states.”

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Figure I-1. Participation rates for institutions providing enrollment lists in all sectors, by state: 2017–18**

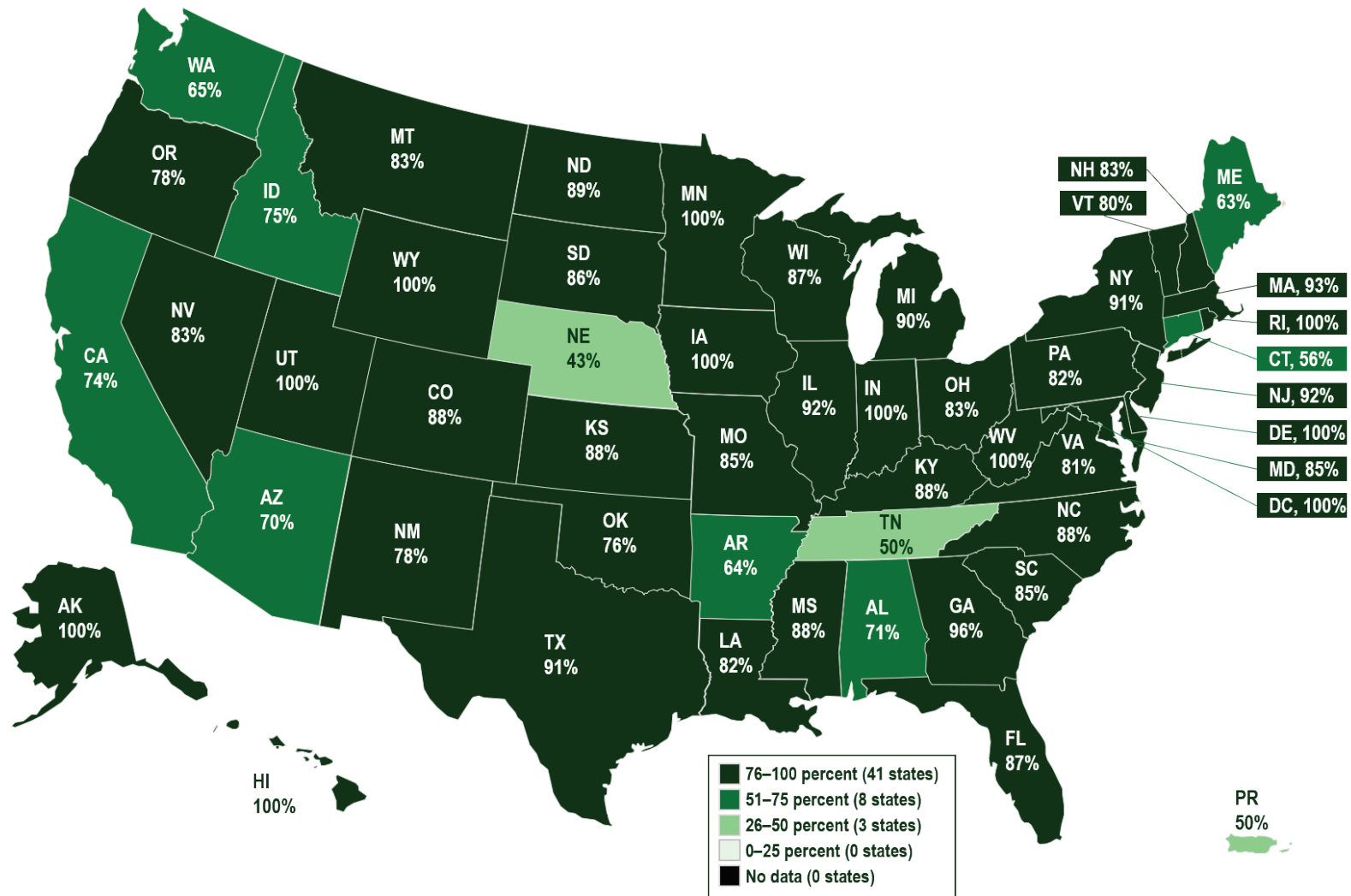
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Figure I-2. Participation rates for institutions providing enrollment lists in the public 2-year sector, by state: 2017–18**

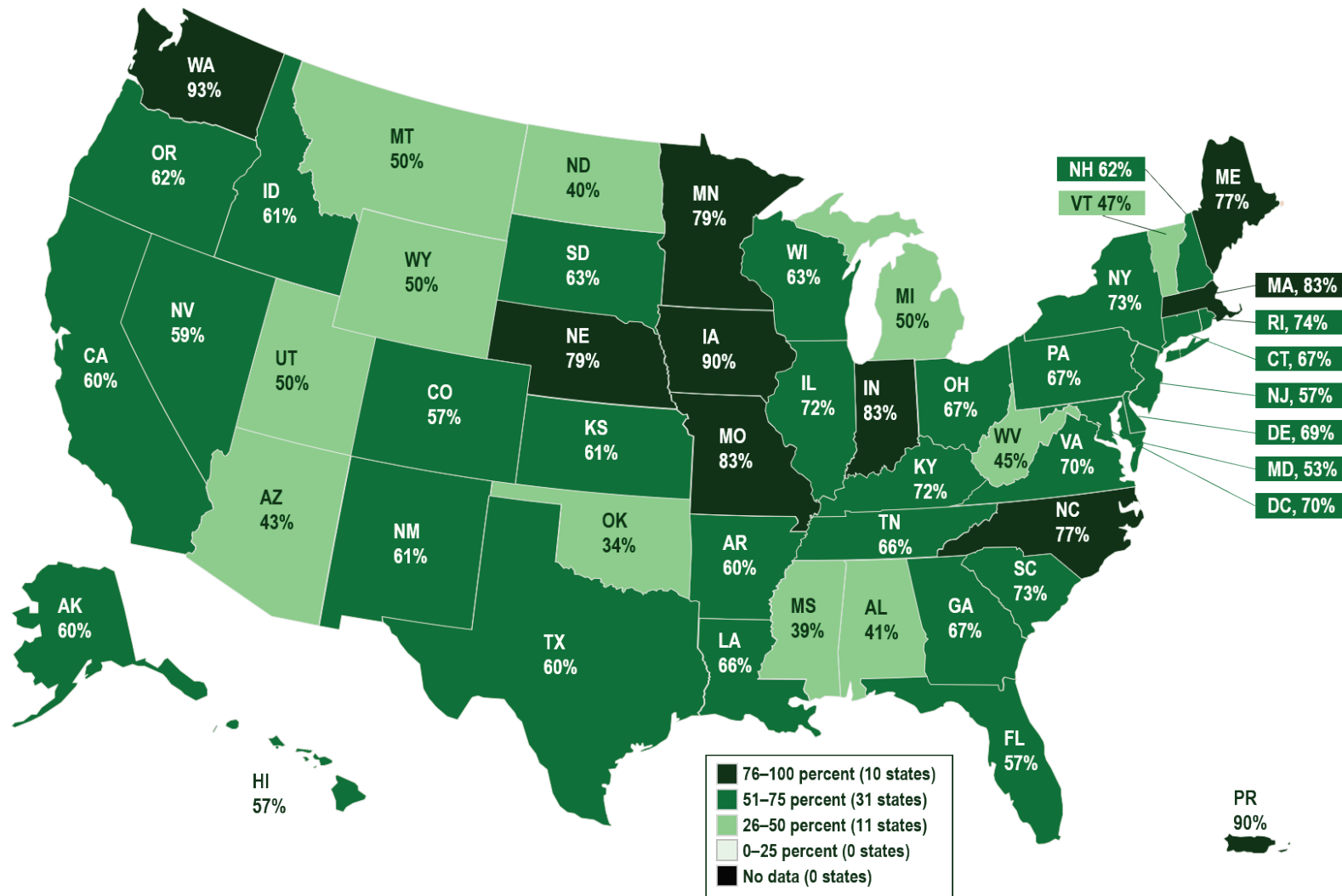
NOTE: AL = Alabama; AK = Alaska; AZ = Arizona; AR = Arkansas; CA = California; CO = Colorado; CT = Connecticut; DE = Delaware; DC = District of Columbia; FL = Florida; GA = Georgia; HI = Hawaii; ID = Idaho; IL = Illinois; IN = Indiana; IA = Iowa; KS = Kansas; KY = Kentucky; LA = Louisiana; ME = Maine; MD = Maryland; MA = Massachusetts; MI = Michigan; MN = Minnesota; MS = Mississippi; MO = Missouri; MT = Montana; NE = Nebraska; NV = Nevada; NH = New Hampshire; NJ = New Jersey; NM = New Mexico; NY = New York; NC = North Carolina; ND = North Dakota; OH = Ohio; OK = Oklahoma; OR = Oregon; PA = Pennsylvania; PR = Puerto Rico; RI = Rhode Island; SC = South Carolina; SD = South Dakota; TN = Tennessee; TX = Texas; UT = Utah; VT = Vermont; VA = Virginia; WA = Washington; WV = West Virginia; WI = Wisconsin; WY = Wyoming. For the purposes of this figure, Puerto Rico and the District of Columbia are referred to as "states."

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

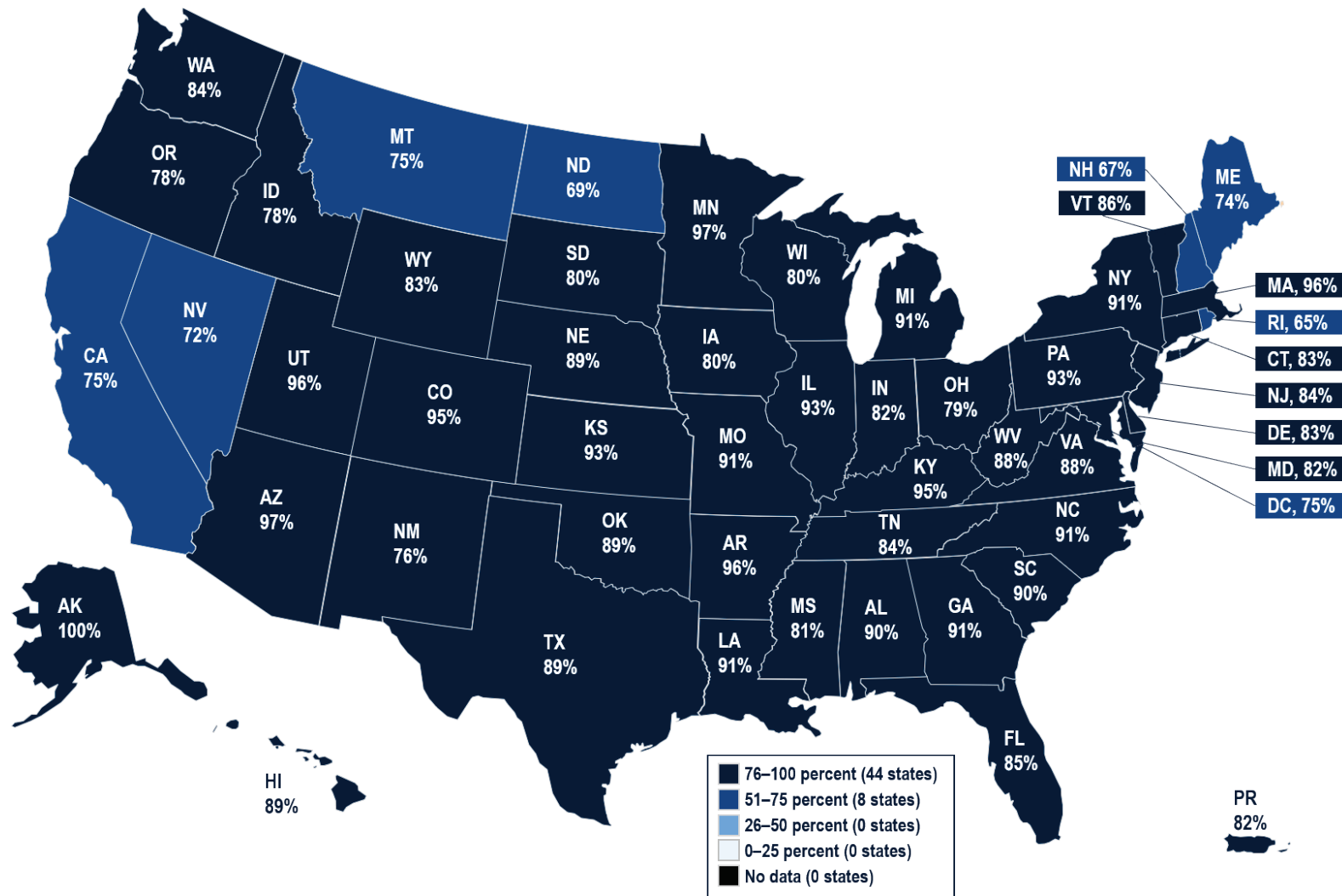


**Figure I-3. Participation rates for institutions providing enrollment lists in the public 4-year sector, by state: 2017–18**

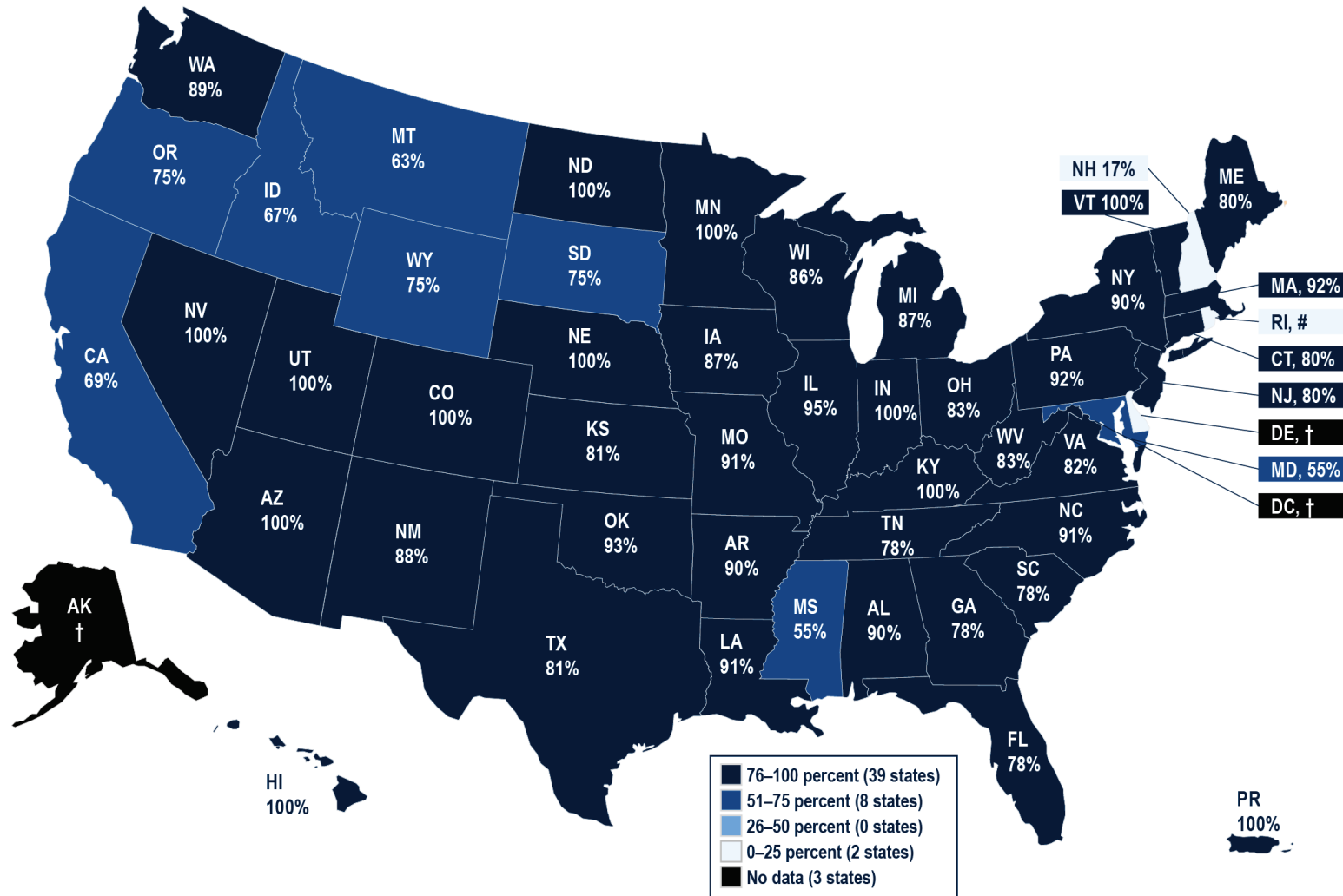
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Figure I-4. Participation rates for institutions providing enrollment lists in all other sectors, by state: 2017–18**

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Figure I-5. Participation rate for institutions providing student records in all sectors, by state: 2017–18**

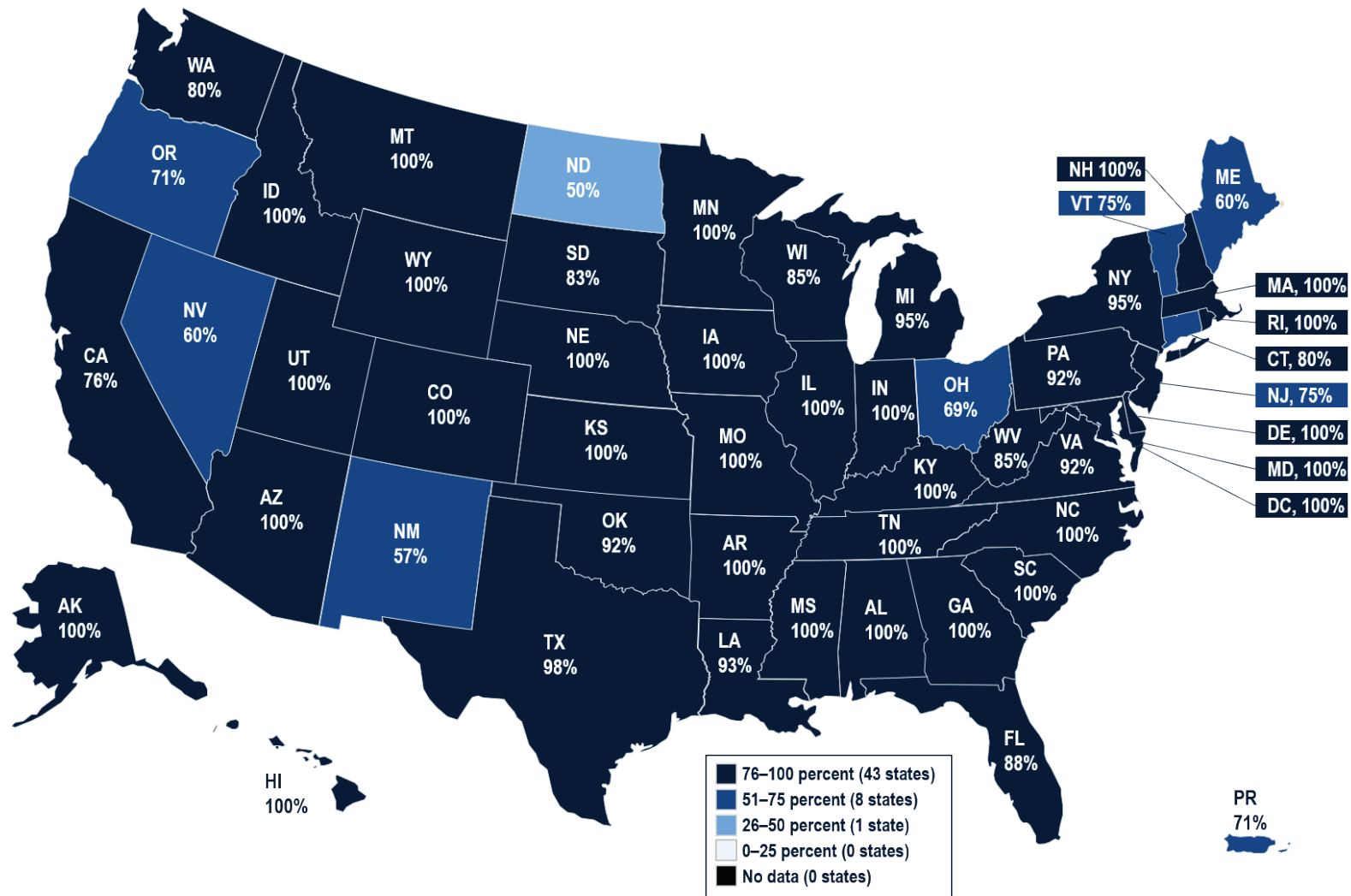
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Figure I-6. Participation rates for institutions providing student records in the public 2-year sector, by state: 2017–18**

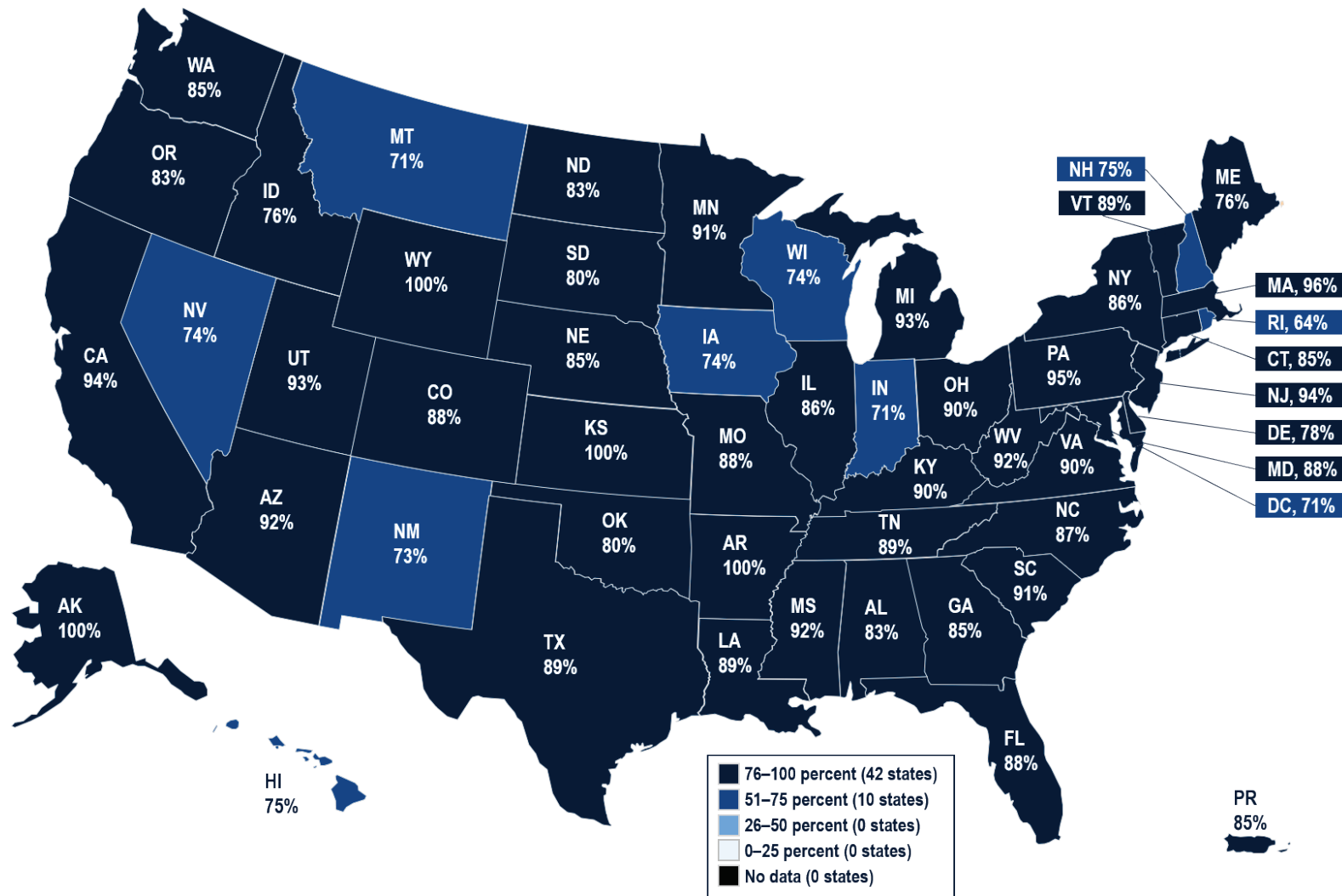
# Rounds to zero.

NOTE: AL = Alabama; AK = Alaska; AZ = Arizona; AR = Arkansas; CA = California; CO = Colorado; CT = Connecticut; DE = Delaware; DC = District of Columbia; FL = Florida; GA = Georgia; HI = Hawaii; ID = Idaho; IL = Illinois; IN = Indiana; IA = Iowa; KS = Kansas; KY = Kentucky; LA = Louisiana; ME = Maine; MD = Maryland; MA = Massachusetts; MI = Michigan; MN = Minnesota; MS = Mississippi; MO = Missouri; MT = Montana; NE = Nebraska; NV = Nevada; NH = New Hampshire; NJ = New Jersey; NM = New Mexico; NY = New York; NC = North Carolina; ND = North Dakota; OH = Ohio; OK = Oklahoma; OR = Oregon; PA = Pennsylvania; PR = Puerto Rico; RI = Rhode Island; SC = South Carolina; SD = South Dakota; TN = Tennessee; TX = Texas; UT = Utah; VT = Vermont; VA = Virginia; WA = Washington; WV = West Virginia; WI = Wisconsin; WY = Wyoming. For the purposes of this figure, Puerto Rico and the District of Columbia are referred to as "states."

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Figure I-7. Participation rates for institutions providing student records in the public 4-year sector, by state: 2017–18**

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

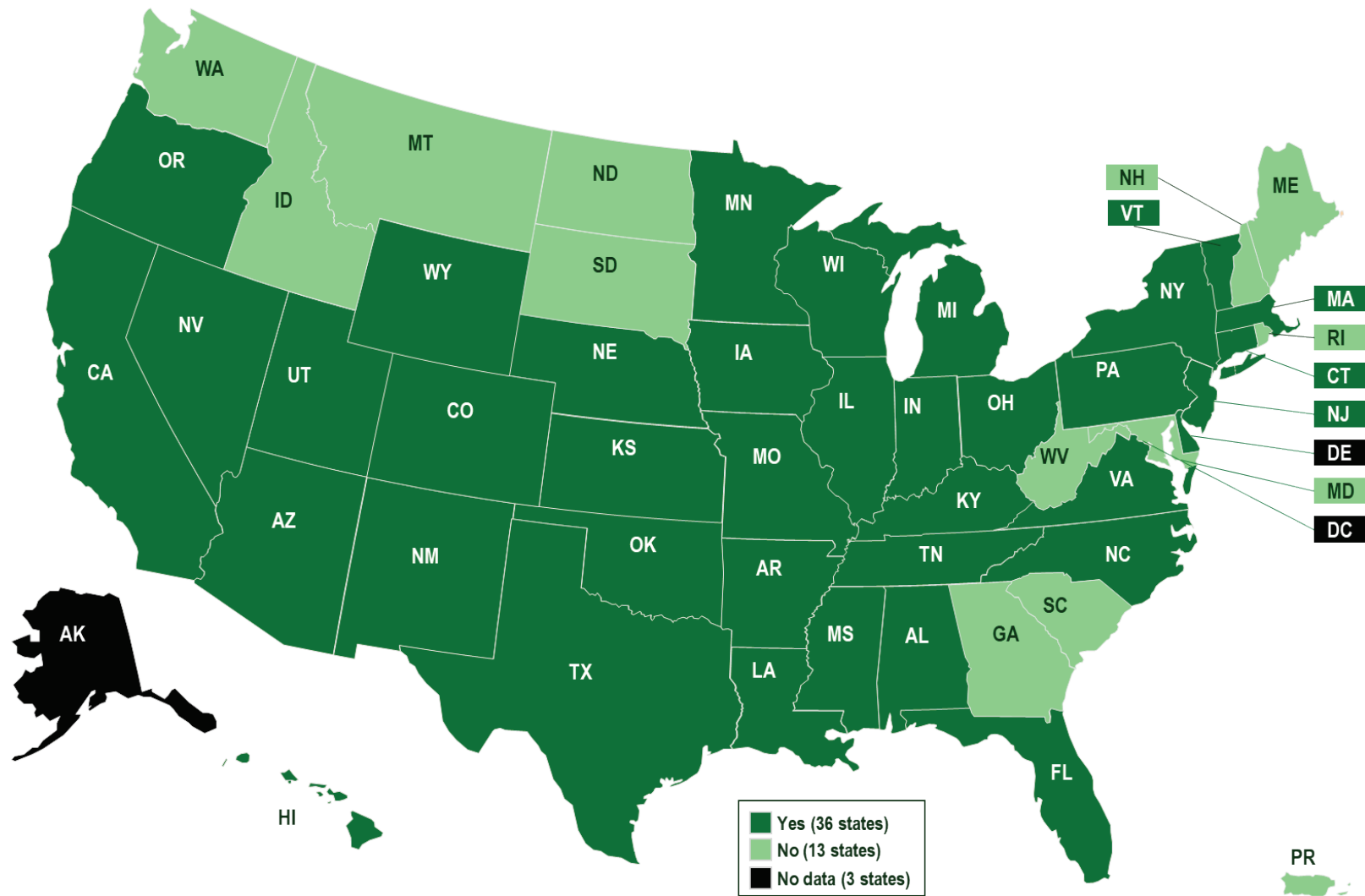
**Figure I-8. Participation rates for institutions providing student records in all other sectors, by state: 2017–18**

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

The map displays the following data for each state:

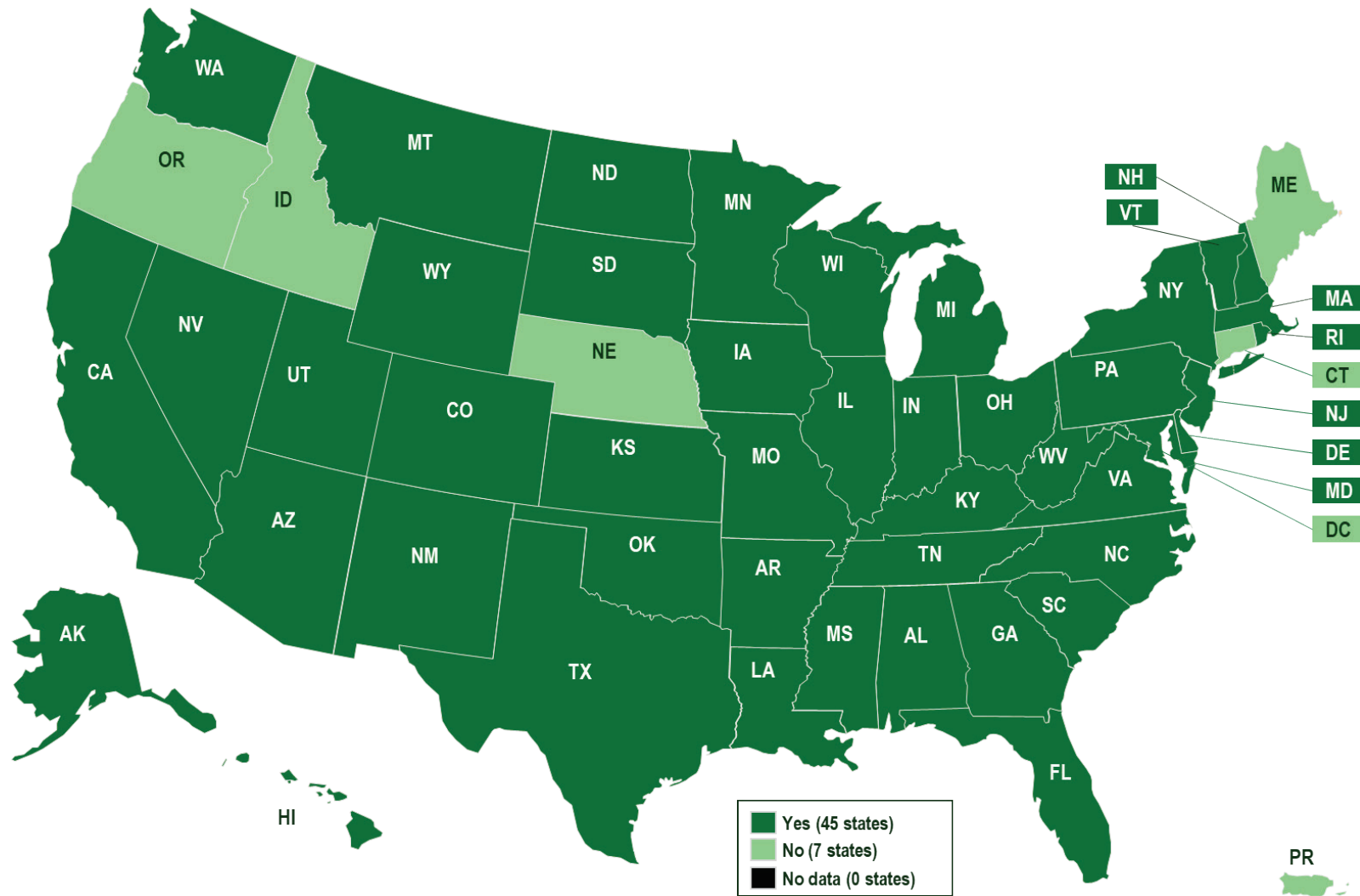
State	Seal Status
AK	No
AL	Yes
AR	Yes
AZ	Yes
CA	Yes
CO	Yes
CT	No
DE	Yes
FL	Yes
GA	No
HI	No data
ID	No
IL	Yes
IN	Yes
IOWA	Yes
KS	Yes
KY	Yes
LA	Yes
MA	Yes
MD	No
ME	No
MI	Yes
MN	Yes
MO	Yes
MS	Yes
MT	No
NC	Yes
ND	No
NE	No
NH	No
NJ	Yes
NM	No
NV	No
NY	Yes
OH	Yes
OK	No
OR	No
PA	Yes
RI	No
SC	No
SD	No
TN	Yes
TX	Yes
UT	Yes
VA	Yes
VT	No
WA	No
WI	Yes
WV	No
WY	No

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Figure I-10. Public 2-year undergraduate student representation, by state: 2017–18**

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Figure I-11. Public 4-year undergraduate student representation, by state: 2017–18**

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

## Appendix J. Derived Variables

**Table J-1. Derived variables in the undergraduate analysis file: 2017–18**

Variable name	Subject	Variable label
ACCREDREG	Institutional characteristics	Regional accreditation agency
ACCREDTYP	Institutional characteristics	Accreditation type
AGE	Student's characteristics	Age as of 12/31/2017
AGEGROUP	Student's characteristics	Age groups as of 12/31/2017
AGEPSE	Student's characteristics	Age at start of postsecondary education
AIDAPP	Financial aid: Application	Applied for any aid
AIDAPP2	Financial aid: Application	Applied for any aid (including non-federal only)
AIDCST_AC	Financial aid: Ratios	Ratio of total aid to student budget
AIDCST3	Financial aid: Ratios	Ratio of aid (excluding private loans and Parent PLUS Loans) to student budget
AIDCTRL	Institution type	NPSAS institution control (with multiple)
AIDLEVL	Institution type	NPSAS institution level (with multiple)
AIDSECT	Institution type	NPSAS institution sector (with multiple)
AIDSNEED_AC	Financial aid: Need	Aid amount exceeding federal need
AIDSRC_AC	Financial aid: Package	Aid package by source of aid
AIDTYPE_AC	Financial aid: Package	Aid package by type of aid
APPROPS17	State characteristics	State higher education appropriations (thousands), 2017
APPROPS18	State characteristics	State higher education appropriations (thousands), 2018
ASIAN_PCT17	State characteristics	Percent of state population (18-34) Asian, 2017
ASIAN_PCT18	State characteristics	Percent of state population (18-34) Asian, 2018
ATTEND	Education: Attendance	Attendance intensity in fall
ATTEND2	Education: Attendance	Attendance intensity in fall (half-time)
ATTNPT	Education: Attendance	Attendance intensity (half-time)
ATTNPTRN	Education: Attendance	Attendance intensity (all schools)
ATTNSTAT	Education: Attendance	Attendance pattern
BINCOME	Finances: Income	Total income (categorical)
BLACK_PCT17	State characteristics	Percent of state population (18-34) Black, 2017
BLACK_PCT18	State characteristics	Percent of state population (18-34) Black, 2018
BUDGETAJ	Institution price	Student budget (attendance adjusted)
BUDNONAJ	Institution: expenses	Non-tuition expense budget (attendance adjusted)
CALSYS	Institutional characteristics	Institution calendar system
CAMPAMT	Financial aid: Federal	Federal campus-based aid (Perkins, SEOG, FWS)
CC2000	Institution type	Carnegie Classification (2000) for NPSAS institution
CC2010B	Institution type	Carnegie Classification 2010: Basic classification
CC2010C	Institution type	Carnegie Classification 2010: Basic classification (collapsed)
CC2015B	Institution type	Carnegie Classification 2015: Basic classification
CC2015C	Institution type	Carnegie Classification 2015: Basic classification (collapsed)
CENSUSDIV	Institutional characteristics	Census division
CINCOME	Finances: Income	Total income (continuous)
CITIZEN2	Student's characteristics	Citizenship status
CLOCK	Institutional characteristics	Clock hour only
CNTLAFFI	Institution type	Institutional control of affiliation
COLLGRAD	Education: Program	Graduating senior from a bachelor's degree program in 2017-18
COMPTO87	Survey sample	Comparable to 1987 NPSAS
CONTROL	Institution type	NPSAS institution control
DELAYENR	Education: Attendance	Delayed enrollment into PSE: Number of years
DEPANY	Student's family	Dependents: Has any dependents
DEPCHILD	Student's family	Dependents: Has dependent children
DEPCOL	Student's family	Independent students: Number of dependents in college
DEPEND	Student's characteristics	Dependency status
DEPEND2	Student's characteristics	Dependency status (3 categories)
DEPEND4	Student's characteristics	Dependency status (4 categories)

See notes at end of table.

**Table J-1. Derived variables in the undergraduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
DEPEND5A	Student's characteristics	Dependency and marital status (separated is married)
DEPEND5B	Student's characteristics	Dependency and marital status (separated is unmarried)
DEPIN	Finances: Income	Dependent students: Parents' income
DEPINC2	Finances: Income	Dependent students: Parents' income (categorical)
DEPNUM	Student's family	Dependents: Has any dependents (number)
DEPOTHER	Student's family	Dependents: Has dependent(s) other than children
DEPTYPE	Student's family	Dependents: Types of dependents
DERMAJ	Education: Program	Derived major: 2010 6-digit CIP code
DISTANCE	Institutional characteristics	Distance from student's home (in miles) to NPSAS institution
DISTNCED	Institutional characteristics	Institution offers instruction exclusively online
DODAMT	Financial aid: Other	Department of Defense (military) aid
E01	Education: Attendance	Monthly enrollment status (half-time) 2017/07
E02	Education: Attendance	Monthly enrollment status (half-time) 2017/08
E03	Education: Attendance	Monthly enrollment status (half-time) 2017/09
E04	Education: Attendance	Monthly enrollment status (half-time) 2017/10
E05	Education: Attendance	Monthly enrollment status (half-time) 2017/11
E06	Education: Attendance	Monthly enrollment status (half-time) 2017/12
E07	Education: Attendance	Monthly enrollment status (half-time) 2018/01
E08	Education: Attendance	Monthly enrollment status (half-time) 2018/02
E09	Education: Attendance	Monthly enrollment status (half-time) 2018/03
E10	Education: Attendance	Monthly enrollment status (half-time) 2018/04
E11	Education: Attendance	Monthly enrollment status (half-time) 2018/05
E12	Education: Attendance	Monthly enrollment status (half-time) 2018/06
EFC	Financial aid: Need	Expected Family Contribution
EFCAID	Financial aid: Need	Aid subject to federal EFC limitation
EFFORT20_AC	Financial aid: Ratios	Net price after grants and loans as percent of income
EFFORT3	Financial aid: Ratios	Net price after grants as percent of income
EFFORT9	Financial aid: Ratios	Net tuition after all grants as percent of income
EMPLWAIV	Financial aid: Grants	Institutional tuition waivers for staff
EMPLYAM3	Financial aid: Grants	Employer aid (student & parents)
EMPLYAMT	Financial aid: Grants	Employer aid (includes college staff)
ENLEN	Education: Attendance	Number of total months enrolled
ENR01	Education: Attendance	Monthly enrollment status 2017/07
ENR02	Education: Attendance	Monthly enrollment status 2017/08
ENR03	Education: Attendance	Monthly enrollment status 2017/09
ENR04	Education: Attendance	Monthly enrollment status 2017/10
ENR05	Education: Attendance	Monthly enrollment status 2017/11
ENR06	Education: Attendance	Monthly enrollment status 2017/12
ENR07	Education: Attendance	Monthly enrollment status 2018/01
ENR08	Education: Attendance	Monthly enrollment status 2018/02
ENR09	Education: Attendance	Monthly enrollment status 2018/03
ENR10	Education: Attendance	Monthly enrollment status 2018/04
ENR11	Education: Attendance	Monthly enrollment status 2018/05
ENR12	Education: Attendance	Monthly enrollment status 2018/06
ENRFALL	Education: Attendance	Enrolled any time between July and December 2017
ENRFSIZE	Institutional characteristics	NPSAS institution fall enrollment
ENRSPR	Education: Attendance	Enrolled any time between January and June 2018
ENRSTAT	Education: Attendance	Enrollment pattern
ESUBMX2	Financial aid: Federal loans	Direct Subsidized Loan individual maximum
ETOTMX2	Financial aid: Federal loans	Direct Subsidized and Unsubsidized Loan individual total maximum
FEDAPP	Financial aid: Application	Applied for federal aid
FEDCUM1	Financial aid: Borrowed cumulative	Cumulative federal loan amount for undergrad
FEDDUE1	Financial aid: Borrowed cumulative	Cum. federal loan amount owed, principal & interest, undergraduate

See notes at end of table.

**Table J-1. Derived variables in the undergraduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
FEDGRPCT_AC	Financial aid: Ratios	Ratio of federal grants to total aid
FEDLNPAK	Financial aid: Package	Federal loan package by type of loan
FEDNEED	Financial aid: Federal	Federal need-based aid
FEDOWE1	Financial aid: Borrowed cumulative	Cumulative federal loan amount owed for undergrad
FEDPACK	Financial aid: Package	Federal aid package by type of aid
FEDPCT_AC	Financial aid: Ratios	Ratio of federal aid to total aid
FGRTLN	Financial aid: Federal	Total federal loans and grants
GENDER	Student's characteristics	Gender
GOVNAME	State characteristics	Name of primary postsecondary governance entity
GOVNAME2	State characteristics	Name of sub-system postsecondary governance entity
GOVSTRUCT	State characteristics	State postsecondary governance structure
GPA	Education: Program	Estimated grade point average
GPACAT	Education: Program	Estimated grade point average (Categorical)
GRNTSRC	Financial aid: Package	Grant package by source of grant
GRTCST	Financial aid: Ratios	Ratio of grant aid to student budget
GRTPCT_AC	Financial aid: Ratios	Ratio of grants to total aid
GRTPCTTN	Financial aid: Ratios	Ratio of grant aid to tuition
GRTSNEED	Financial aid: Need	Grant amount exceeding federal need
HBCU	Institutional characteristics	Historically black college indicator
HCHONORS	High school	Number of honors subjects
HCMATHHI	High school	Highest level of math completed or planned
HCSCINUM	High school	Number of science courses taken
HCTKBIOL	High school	Took or planned to take biology
HCTKCHEM	High school	Took or planned to take chemistry
HCTKPHYS	High school	Took or planned to take physics
HCYSENGL	High school	Years completed or planned English
HCYSLANG	High school	Years completed or planned foreign languages
HCYSMATH	High school	Years completed or planned math
HCYSSCIE	High school	Years completed or planned science
HCYSSOCI	High school	Years completed or planned social studies
HISPANIC	Student's characteristics	Race: Hispanic or Latino origin
HISPANIC_PCT17	State characteristics	Percent of state population (18-34) Hispanic, 2017
HISPANIC_PCT18	State characteristics	Percent of state population (18-34) Hispanic, 2018
HLOFFER	Institutional characteristics	Highest level of offering at NPSAS institution
HOMELESS	Student's characteristics	Homeless or at risk of homelessness
HSDEG	High school	High school degree type
HSGPA	High school	Grade point average in high school
HSGRADYY	High school	High school graduation year
HSIZE	Student's family	Family size (dependent & independent)
ID	Survey sample	Analysis ID
INATHAMT	Financial aid: Grants	Athletic scholarships
INCOME	Finances: Income	Total income by dependency (categorical)
INCPCT1	Financial aid: Ratios	Student budget as percent of income
INCPCT2	Financial aid: Ratios	Tuition as percent of income
INCQUART	Finances: Income	Income quartile: all students
INDEPINC	Finances: Income	Independent students: student and spouse's income
INDEPINC2	Finances: Income	Independent students: student and spouse's income (categorical)
INGRTAMT	Financial aid: Grants	Institutional grants total
INJURIS	Institution: expenses	Tuition jurisdiction
INLNAMT	Financial aid: Institutional	Institutional loans
INSMERIT	Financial aid: Grants	Institutional merit-only grants
INSMILAMT	Financial aid: Grants	Institution military/armed forces grants
INSTAMT	Financial aid: Institutional	Institutional aid total
INSTCAT	Institution type	Institutional category

See notes at end of table.

**Table J-1. Derived variables in the undergraduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
INSTCAT2	Institution type	Institutional category and control
INSTGPCT_AC	Financial aid: Ratios	Ratio of institutional grants to total aid
INSTID	Institutional characteristics	IPEDS unique identification number of the institution (UNITID)
INSTNEED	Financial aid: Grants	Institutional need-based grants
INSTNOND	Financial aid: Grants	Institutional non-need & merit grants
INSTNOND1	Financial aid: Grants	Institutional non-need grants & tuition waivers
INSTPACK_AC	Financial aid: Package	Aid package with institutional aid
INSTPCT_AC	Financial aid: Ratios	Ratio of institution aid to total aid
INSTSTAT	Institutional characteristics	NPSAS institution state
INSTWRK	Financial aid: Institutional	Institutional work-study
INSVETAMT	Financial aid: Grants	Institutional Veterans' education benefits
INSWAIV	Financial aid: Grants	Institutional tuition & fee waivers
LEVEL	Institution type	NPSAS institution level
LOANCST2_AC	Financial aid: Ratios	Ratio of loans to student budget (includes Parent PLUS Loans)
LOANPCT_AC	Financial aid: Ratios	Ratio of loans to total aid (excluding Parent PLUS Loans)
LOANPCT2_AC	Financial aid: Ratios	Ratio of loans to total aid (including Parent PLUS Loans)
LOANSRC_AC	Financial aid: Package	Loan package by source of loan
LOCALE	Institutional characteristics	Degree of urbanization
LOCALRES	Student's characteristics	Residence while enrolled
MAJORCTE	Education: Program	Major field of study in career and technical education (CTE) field
MAJORNFS	Education: Program	Major field of study classified by the National Science Foundation (NSF)
MAJORS	Education: Program	Field of study or major (detailed)
MAJORS12	Education: Program	Field of study or major: undergraduate
MAJORS23	Education: Program	Field of study: undergraduate (23 categories)
MAJORS2Y	Education: Program	Field of study: undergraduate (11 categories)
MAJORS4Y	Education: Program	Field of study: undergraduate (10 categories)
MED_HH_INC17	State characteristics	State median household income, 2017
MED_HH_INC18	State characteristics	State median household income, 2018
MERITAD	Financial aid: Total	Total merit-only grants
MFT	Education: Attendance	Number of months enrolled full-time
MHT	Education: Attendance	Number of months enrolled half-time
MILTOT	Financial aid: Total	Total federal and non-federal Military/Armed Forces grants
MILTYPE	Student's characteristics	Military type
MILTYPE2	Student's characteristics	Military type (for dependency)
MLT	Education: Attendance	Number of months enrolled less than half-time
MPT	Education: Attendance	Number of months enrolled part-time
MSISTAT	Institutional characteristics	Minority Serving Institution indicator
MSTINST	Education: Attendance	UNITID of institution with student's highest enrollment intensity
NATIVEAMERICAN_PCT17	State characteristics	Percent of state population (18-34) Native American, 2017
NATIVEAMERICAN_PCT18	State characteristics	Percent of state population (18-34) Native American, 2018
NEEDAID	Financial aid: Total	Total need-based grant aid
NEEDAID1	Financial aid: Total	Total need-based aid
NETCST1_AC	Financial aid: Net price	Student budget minus all aid
NETCST10	Financial aid: Net price	Tuition and fees minus federal grants
NETCST12	Financial aid: Net price	Tuition and fees minus state grants
NETCST13	Financial aid: Net price	Tuition and fees minus institutional grants
NETCST14	Financial aid: Net price	Tuition and fees minus all non-federal grants
NETCST15	Financial aid: Net price	Tuition and fees minus state and institutional grants
NETCST16	Financial aid: Net price	Student budget minus federal and state grants
NETCST17_AC	Financial aid: Net price	Student budget minus all grants and loans

See notes at end of table.

**Table J-1. Derived variables in the undergraduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
NETCST2	Financial aid: Net price	Student budget minus federal grants
NETCST20_AC	Financial aid: Net price	Student budget minus all grants & loans (incl Parent PLUS Loans)
NETCST3	Financial aid: Net price	Student budget minus all grants
NETCST41	Financial aid: Net price	Student budget minus all aid except private loans
NETCST43_AC	Financial aid: Net price	Student budget minus all aid except loans
NETCST9	Financial aid: Net price	Tuition and fees minus all grants
OBEREG	Institutional characteristics	NPSAS institution region
ORPHAN	Student's characteristics	Orphan, ward of court, emancipated minor, or in legal guardianship
OTHFDGRT	Financial aid: Grants	Other federal grants (not Title IV)
OTHGTAMT	Financial aid: Grants	Outside grants (private & employer)
OTHRSCR_AC	Financial aid: Other	Outside sources total
OTHTYPE	Financial aid: Other	Total other type of aid (Direct PLUS, job training, VA)
OTHTYPE2	Financial aid: Other	Total other type of aid including work-study
PARED1_AC	Parents and family	Parent 1 highest education level
PARED2_AC	Parents and family	Parent 2 highest education level
PAREduc_AC	Parents and family	Parents' highest education level
PBF_2YEAR17	State characteristics	State PBF in public 2-years, 2017
PBF_2YEAR18	State characteristics	State PBF in public 2-years, 2018
PBF_4YEAR17	State characteristics	State PBF in public 4-years, 2017
PBF_4YEAR18	State characteristics	State PBF in public 4-years, 2018
PBF17	State characteristics	State performance-based funding policy, 2017
PBF18	State characteristics	State performance-based funding policy, 2018
PCGDP17	State characteristics	State GDP per capita, 2017
PCGDP18	State characteristics	State GDP per capita, 2018
PCT_BA17	State characteristics	Percent adults with BA or higher, 2017
PCT_BA18	State characteristics	Percent adults with BA or higher, 2018
PCTALL	Finances: Income	Income percentile rank for all students
PCTALLFTFY	Finances: Income	Income percentile rank for full-time, full-year students
PCTDEP	Finances: Income	Income percentile dependent students
PCTENR2M	Institutional characteristics	Percent enrolled: two or more races
PCTENRAN	Institutional characteristics	Percent enrolled: American Indian/Alaskan Native
PCTENRAP	Institutional characteristics	Percent enrolled: Asian/Pacific Islander
PCTENRAS	Institutional characteristics	Percent enrolled: Asian
PCTENRBK	Institutional characteristics	Percent enrolled: Black, non-Hispanic
PCTENRHS	Institutional characteristics	Percent enrolled: Hispanic
PCTENRNH	Institutional characteristics	Percent enrolled: Native Hawaiian or other Pacific Islander
PCTENRNR	Institutional characteristics	Percent enrolled: Nonresident Alien
PCTENRUN	Institutional characteristics	Percent enrolled: Race/ethnicity unknown
PCTENRWH	Institutional characteristics	Percent enrolled: White, non-Hispanic
PCTINDEP	Finances: Income	Income percentile independent students
PCTPOV	Finances: Income	Income percent of poverty level
PELLAMT	Financial aid: Federal grants	Federal Pell grant
PELLCST	Financial aid: Ratios	Ratio of Pell grant to student budget
PELLCUM	Financial aid: Federal grants	Cumulative Pell amount
PELLFST	Financial aid: Federal grants	First year received a Pell grant
PELLLST	Financial aid: Federal grants	Last year received a Pell grant
PELLPACK	Financial aid: Package	Aid package with Pell grants
PELLRAT1_AC	Financial aid: Ratios	Ratio of Pell grant to total aid
PELLRAT2	Financial aid: Ratios	Ratio of Pell grant to total grants
PELLYRS	Financial aid: Federal grants	Number of years received Pell grants
PERKAMT	Financial aid: Federal loans	Perkins loan
PERKCUM1	Financial aid: Borrowed cumulative	Cumulative Perkins amount for undergrad
PFAMNUM	Parents and family	Dependent students: Family size

See notes at end of table.

**Table J-1. Derived variables in the undergraduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
PHSLOAN	Financial aid: Federal loans	Federal health professions loans
PINCOL	Parents and family	Dependent students: Number of family members in college
PLUSAMT	Financial aid: Federal loans	Direct PLUS Loans to parents
PLUSCUM	Financial aid: Borrowed cumulative	Cumulative Parent PLUS Loans
PLUSPCT_AC	Financial aid: Ratios	Ratio of Parent PLUS Loans to total aid
PMARITAL	Parents and family	Dependent students: Parents' marital status
PRIVAID	Financial aid: Grants	Private source grants
PROGSTAT_AC	Education: Attainment	Completed degree program in 2017-18
PSECTYM	Education: Attendance	Year and month first enrolled in postsecondary education
PSECTYR	Education: Attendance	Year first enrolled in postsecondary education
RAASIAN	Student's characteristics	Race: Asian
RABLACK	Student's characteristics	Race: Black or African American
RACE	Student's characteristics	Race/ethnicity (with multiple)
RACE2	Student's characteristics	Race/ethnicity (with multiple) without foreign students
RACECEN	Student's characteristics	Race/ethnicity census categories
RACESEX	Student's characteristics	Race/ethnicity (with multiple) and gender
RAINDIAN	Student's characteristics	Race: American Indian or Alaska Native
RAISLAND	Student's characteristics	Race: Native Hawaiian or other Pacific Islander
RAWHITE	Student's characteristics	Race: White
SAMESTAT	Student's characteristics	Attend institution in state of legal residence
SECTOR1	Institution type	NPSAS institution type (IPEDS sector)
SECTOR10	Institution type	NPSAS institution sector (10 categories)
SECTOR11	Institution type	NPSAS institution sector (11 categories)
SECTOR3	Institution type	NPSAS institution sector (3 categories)
SECTOR4	Institution type	NPSAS institution sector (4 with multiple)
SELECTV2	Institutional characteristics	Selectivity (4-year nonprofit institutions)
SELECTV3	Institutional characteristics	Selectivity (All 4-year institutions)
SEOGAMT	Financial aid: Grants	Federal Supplemental Educational Opportunity Grant (SEOG)
SFAMNUM	Student's family	Independent students: Family size
SIBINCOL	Parents and family	Dependent students: Have siblings in college
SINCOL	Student's family	Independent students: Number of family members in college
SINGLPAR	Student's characteristics	Single parent, independent student
SMARITAL	Student's characteristics	Marital status
SNEED1	Financial aid: Need	Student budget minus EFC
SNEED2_AC	Financial aid: Need	Student budget minus EFC minus total aid
SNEED3	Financial aid: Need	Student budget minus EFC minus federal grants
SNEED4	Financial aid: Need	Student budget minus EFC and aid subject to EFC limitation
SNEED5	Financial aid: Need	Student budget minus EFC minus all grants
SNEED7	Financial aid: Need	Student budget minus EFC, federal and state grants
SNEED8	Financial aid: Need	Student budget minus EFC & federal, state, and other grants
SNEED9	Financial aid: Need	Student budget minus EFC & all aid except private loans
SPINCOL	Student's family	Independent students: Spouse attending college
STAFCT1	Financial aid: Federal loans	Direct Subsidized Loan maximum
STAFCT2	Financial aid: Federal loans	Direct Subsidized and Unsubsidized Loan total maximum
STAFFAMT	Financial aid: Federal loans	Direct Subsidized and Unsubsidized Loans
STAFFST	Financial aid: Federal loans	Year of first Direct Subsidized or Unsubsidized Loan
STAFST	Financial aid: Federal loans	Year of last Direct Subsidized or Unsubsidized Loan
STAFSUB	Financial aid: Federal loans	Direct Subsidized Loans
STAFTYPE	Financial aid: Federal loans	Direct Subsidized and Unsubsidized Loan types received
STAFUNSB	Financial aid: Federal loans	Direct Unsubsidized Loans
STAFYRS	Financial aid: Federal loans	Number of years received Direct Subsidized or Unsubsidized Loans

See notes at end of table.



**Table J-1. Derived variables in the undergraduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
STAPCT_AC	Financial aid: Ratios	Ratio of state aid to total aid
STATEAMT	Financial aid: State	State aid total
STATERP	State characteristics	State representation indicator
STATNEED	Financial aid: State	State need-based grants
STATNOND	Financial aid: State	State non-need & merit grants
STEMMAJ	Education: Program	Major field of study with a focus on STEM fields
STEMMAJ2	Education: Program	Major field of study with a focus on STEM fields (in degree program)
STFCUM1	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized and Unsubsidized Loans for undergrad
STGRPCT_AC	Financial aid: Ratios	Ratio of state grants to total aid
STGTAMT	Financial aid: State	State grants total
STLNAMT	Financial aid: State	State loans
STMERIT	Financial aid: State	State merit-only grants
STMILAMT	Financial aid: State	State military/armed forces grants
STNDMRT	Financial aid: State	State grants based both on need and merit
STNDONLY	Financial aid: State	State need-based only grants
STNOND1	Financial aid: State	State non-need grants
STSBCEUM1	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized Loans for undergrad
STSUBMX	Financial aid: Federal loans	Direct Subsidized Loan program maximum
STTOTMX	Financial aid: Federal loans	Direct Subsidized and Unsubsidized Loan program maximum
STUDMULT	Education: Attendance	Number of institutions attended
STUSERV1	Institutional characteristics	Institution offers employment services
STUSERV2	Institutional characteristics	Institution offers placement services
STUSERV3	Institutional characteristics	Institution offers on-campus childcare
STUSTATE	Student's characteristics	State of legal residence
STVETAMT	Financial aid: State	State Veterans' education benefits
STWKAMT	Financial aid: State	State work-study
STYPELST	Student's characteristics	Student type indicator
SUBCUM1	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized and Perkins Loans for undergrad
SUBLOAN	Financial aid: Federal loans	Federal subsidized loans (Direct Subsidized & Perkins)
T4LNAMT1	Financial aid: Federal loans	Title IV loans (excludes Parent PLUS Loans)
T4LNAMT2	Financial aid: Federal loans	Title IV loans (includes Parent PLUS Loans)
TEACHGRT	Financial aid: Federal grants	Federal TEACH grant amount
TEACTDER_AC	High school	ACT derived composite score
TESATDER_AC	High school	SAT derived composite score
TFEDAID	Financial aid: Federal	Total federal aid (excludes Veterans'/DOD aid)
TFEDAID2	Financial aid: Federal	Total federal aid (includes Veterans'/DOD aid)
TFEDAID6	Financial aid: Federal	Total federal aid (excludes Parent PLUS Loans and Veterans'/DOD aid)
TFEDGRT	Financial aid: Federal grants	Total federal grants (excludes Veterans'/DOD aid)
TFEDGRT2	Financial aid: Federal grants	Total federal grants and Veterans'/DOD aid
TFEDLN	Financial aid: Federal loans	Total federal loans (excludes Parent PLUS Loans)
TFEDLN2	Financial aid: Federal loans	Total federal loans (includes Parent PLUS Loans)
TFEDWRK	Financial aid: Federal	Federal work-study
TGRTLN_AC	Financial aid: Total	Total loans and grants
TITIVAMT	Financial aid: Federal	Total federal Title IV aid
TNFEDAID_AC	Financial aid: Total	Total non-federal aid
TNFEDGRT	Financial aid: Total	Total non-federal grants
TNFEDLN_AC	Financial aid: Total	Total non-federal loans
TOTAID_AC	Financial aid: Total	Total aid amount
TOTAID2	Financial aid: Total	Total federal (Title IV), state, & institutional aid
TOTAID4_AC	Financial aid: Total	Total aid excluding Parent PLUS Loans

See notes at end of table.

**Table J-1. Derived variables in the undergraduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
TOTAID6_AC	Financial aid: Total	Total aid (excludes Parent PLUS Loans and Veterans'/DOD aid)
TOTAID7_AC	Financial aid: Total	Total aid (excludes Veterans'/DOD aid)
TOTAID8	Financial aid: Total	Total aid excluding private loans
TOTAL	Institutional characteristics	NPSAS institution 12-month total enrollment
TOTAL_POP17	State characteristics	Total state population (18-34), 2017
TOTAL_POP18	State characteristics	Total state population (18-34), 2018
TOTGRT	Financial aid: Total	Total grants
TOTGRT2	Financial aid: Total	Total grants and Veterans'/DOD aid
TOTGRT4	Financial aid: Total	Total state and institutional grants
TOTLOAN_AC	Financial aid: Total	Total loans (excluding Parent PLUS Loans)
TOTLOAN2_AC	Financial aid: Total	Total loans (including Parent PLUS Loans)
TOTLOAN3	Financial aid: Total	Total loans excluding private loans
TOTNOND3	Financial aid: Total	Institutional non-need and state non-need grants
TOTWKST	Financial aid: Total	Total work-study
TUIT_AUTH_STBOARD17	State characteristics	State has tuition authority: state board, 2017
TUIT_AUTH_STBOARD18	State characteristics	State has tuition authority: state board, 2018
TUITION_REV17	State characteristics	Net tuition revenue (thousands), 2017
TUITION_REV18	State characteristics	Net tuition revenue (thousands), 2018
TUITION2	Institution price	Tuition and fees paid
UGDEG	Education: Program	Undergraduate degree program
UGLVL1	Education: Program	Class level
UGLVL2	Education: Program	Class level (for loans)
UNEMP_RATE17	State characteristics	State unemployment rate, 2017
UNEMP_RATE18	State characteristics	State unemployment rate, 2018
UNSBLOAN_AC	Financial aid: Total	Total unsubsidized loans (all sources)
VADODAMT	Financial aid: Other	Federal Veterans' benefits and Department of Defense
VADODAMT2	Financial aid: Other	Federal Veterans' benefits (excluding housing) and DOD aid
VETBEN	Financial aid: Other	Federal Veterans' education benefits
VETBEN2	Financial aid: Other	Federal Veterans' education benefits (excluding housing)
VETBENSRC	Financial aid: Other	Type of recipient of federal Veterans' education benefits
VETERAN	Student's characteristics	Veteran status
VETERAN2	Student's characteristics	Veteran status (for dependency)
VETPROG1	Institutional characteristics	Institution offers Yellow Ribbon Program for Veterans
VETPROG2	Institutional characteristics	Institution offers credit for military training
VETPROG3	Institutional characteristics	Institution offers dedicated point of contact for Veterans, military
VETPROG4	Institutional characteristics	Institution has recognized student Veteran organization
VETPROG5	Institutional characteristics	Institution is member of Servicemembers Opportunity Colleges
VETTOT	Financial aid: Total	Total federal and non-federal Veterans' education benefits
VOCHELP	Financial aid: State	Vocational rehabilitation and training
WHITE_PCT17	State characteristics	Percent of state population (18-34) White, 2017
WHITE_PCT18	State characteristics	Percent of state population (18-34) White, 2018
WORKPCT_AC	Financial aid: Ratios	Ratio of work-study to total aid

NOTE: BA = bachelor's degree; CIP = Classification of Instructional Programs; DOD = Department of Defense; EFC = expected family contribution; FWS = federal work-study; GDP = gross domestic product; IPEDS = Integrated Postsecondary Education Data System; NPSAS = National Postsecondary Student Aid Study; PBF = performance-based funding; PSE = postsecondary education; SEOG = Supplemental Educational Opportunity Grant; STEM = science, technology, engineering, and mathematics; VA = Department of Veterans Affairs.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table J-2. Derived variables in the graduate analysis file: 2017–18**

Variable name	Subject	Variable label
ACCREDREG	Institutional characteristics	Regional accreditation agency
ACCREDTYP	Institutional characteristics	Accreditation type
AGE	Student's characteristics	Age as of 12/31/2017
AGEGROUP	Student's characteristics	Age groups as of 12/31/2017
AIDAPP	Financial aid: Application	Applied for any aid
AIDCST_AC	Financial aid: Ratios	Ratio of total aid to student budget
AIDCTRL	Institution type	NPSAS institution control (with multiple)
AIDSECTG	Institution type	NPSAS institution type: Graduate (with multiple)
AIDSNEED_AC	Financial aid: Need	Aid amount exceeding federal need
AIDSRC_AC	Financial aid: Package	Aid package by source of aid
AIDSRCG_AC	Financial aid: Package	Graduate aid package by source of aid
AIDTYPE_AC	Financial aid: Package	Aid package by type of aid
AIDTYPEG_AC	Financial aid: Package	Graduate aid package by type of aid
APPROPS17	State characteristics	State higher education appropriations (thousands), 2017
APPROPS18	State characteristics	State higher education appropriations (thousands), 2018
ASIAN_PCT17	State characteristics	Percent of state population (18-34) Asian, 2017
ASIAN_PCT18	State characteristics	Percent of state population (18-34) Asian, 2018
ATTEND	Education: Attendance	Attendance intensity in fall
ATTEND2	Education: Attendance	Attendance intensity in fall (half-time)
ATTNPT	Education: Attendance	Attendance intensity (half-time)
ATTNPTRN	Education: Attendance	Attendance intensity (all schools)
ATTNSTAT	Education: Attendance	Attendance pattern
BAYEAR	Education: Attainment	Year received bachelor's degree
BAYEARM	Education: Attainment	Year and month received bachelor's degree
BINCOME	Finances: Income	Total income (categorical)
BLACK_PCT17	State characteristics	Percent of state population (18-34) Black, 2017
BLACK_PCT18	State characteristics	Percent of state population (18-34) Black, 2018
BUDGETAJ	Institution price	Student budget (attendance adjusted)
BUDNONAJ	Institution: expenses	Non-tuition expense budget (attendance adjusted)
CALSYS	Institutional characteristics	Institution calendar system
CAMPAMT	Financial aid: Federal	Federal campus-based aid (Perkins & FWS)
CC2000	Institution type	Carnegie Classification (2000) for NPSAS institution
CC2010B	Institution type	Carnegie Classification 2010: Basic classification
CC2010C	Institution type	Carnegie Classification 2010: Basic classification (collapsed)
CC2015B	Institution type	Carnegie Classification 2015: Basic classification
CC2015C	Institution type	Carnegie Classification 2015: Basic classification (collapsed)
CENSUSDIV	Institutional characteristics	Census division
CINCOME	Finances: Income	Total income (continuous)
CITIZEN2	Student's characteristics	Citizenship status
CLOCK	Institutional characteristics	Clock hour only
CNTLAFFI	Institution type	Institutional control of affiliation
COMPT087	Survey sample	Comparable to 1987 NPSAS
CONTROL	Institution type	NPSAS institution control
DEPANY	Student's family	Dependents: Has any dependents
DEPCHILD	Student's family	Dependents: Has dependent children
DEPCOL	Student's family	Independent students: Number of dependents in college
DEPEND	Student's characteristics	Dependency status
DEPEND2	Student's characteristics	Dependency status (3 categories)
DEPEND4	Student's characteristics	Dependency status (4 categories)
DEPEND5A	Student's characteristics	Dependency and marital status (separated is married)
DEPEND5B	Student's characteristics	Dependency and marital status (separated is unmarried)
DEPNUM	Student's family	Dependents: Has any dependents (number)

See notes at end of table.

**Table J-2. Derived variables in the graduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
DEPOTHER	Student's family	Dependents: Has dependent(s) other than children
DEPTYPE	Student's family	Dependents: Types of dependents
DERMAJ	Education: Program	Derived major: 2010 6-digit CIP code
DISTANCE	Institutional characteristics	Distance from student's home (in miles) to NPSAS institution
DISTNCED	Institutional characteristics	Institution offers instruction exclusively online
DODAMT	Financial aid: Other	Department of Defense (military) aid
E01	Education: Attendance	Monthly enrollment status (half-time) 2017/07
E02	Education: Attendance	Monthly enrollment status (half-time) 2017/08
E03	Education: Attendance	Monthly enrollment status (half-time) 2017/09
E04	Education: Attendance	Monthly enrollment status (half-time) 2017/10
E05	Education: Attendance	Monthly enrollment status (half-time) 2017/11
E06	Education: Attendance	Monthly enrollment status (half-time) 2017/12
E07	Education: Attendance	Monthly enrollment status (half-time) 2018/01
E08	Education: Attendance	Monthly enrollment status (half-time) 2018/02
E09	Education: Attendance	Monthly enrollment status (half-time) 2018/03
E10	Education: Attendance	Monthly enrollment status (half-time) 2018/04
E11	Education: Attendance	Monthly enrollment status (half-time) 2018/05
E12	Education: Attendance	Monthly enrollment status (half-time) 2018/06
EFC	Financial aid: Need	Expected Family Contribution
EFCAD	Financial aid: Need	Aid subject to federal EFC limitation
EFFORT3	Financial aid: Ratios	Net price after grants as percent of income
EFFORT9	Financial aid: Ratios	Net tuition after all grants as percent of income
EMPLWAIV	Financial aid: Grants	Institutional tuition waivers for staff
EMPLYAM3	Financial aid: Grants	Employer aid (student and parents)
EMPLYAMT	Financial aid: Grants	Employer aid (includes college staff)
ENLEN	Education: Attendance	Number of total months enrolled
ENR01	Education: Attendance	Monthly enrollment status 2017/07
ENR02	Education: Attendance	Monthly enrollment status 2017/08
ENR03	Education: Attendance	Monthly enrollment status 2017/09
ENR04	Education: Attendance	Monthly enrollment status 2017/10
ENR05	Education: Attendance	Monthly enrollment status 2017/11
ENR06	Education: Attendance	Monthly enrollment status 2017/12
ENR07	Education: Attendance	Monthly enrollment status 2018/01
ENR08	Education: Attendance	Monthly enrollment status 2018/02
ENR09	Education: Attendance	Monthly enrollment status 2018/03
ENR10	Education: Attendance	Monthly enrollment status 2018/04
ENR11	Education: Attendance	Monthly enrollment status 2018/05
ENR12	Education: Attendance	Monthly enrollment status 2018/06
ENRFALL	Education: Attendance	Enrolled any time between July and December 2017
ENRFSIZE	Institutional characteristics	NPSAS institution fall enrollment
ENRSPR	Education: Attendance	Enrolled any time between January and June 2018
ENRSTAT	Education: Attendance	Enrollment pattern
FEDAPP	Financial aid: Application	Applied for federal aid
FEDCUM1	Financial aid: Borrowed cumulative	Cumulative federal loan amount for undergrad
FEDCUM2	Financial aid: Borrowed cumulative	Cumulative federal loan amount for grad
FEDCUM3	Financial aid: Borrowed cumulative	Cumulative federal loan amount for undergrad and grad
FEDDUE1	Financial aid: Borrowed cumulative	Cum. federal loan amount owed, principal & interest, undergraduate
FEDDUE2	Financial aid: Borrowed cumulative	Cum. federal loan amount owed, principal & interest, graduate
FEDDUE3	Financial aid: Borrowed cumulative	Cum. federal loan amount owed, principal & interest, undergrad & grad
FEDGRPCT_AC	Financial aid: Ratios	Ratio of federal grants to total aid
FEDOWE1	Financial aid: Borrowed cumulative	Cumulative federal loan amount owed for undergrad
FEDOWE2	Financial aid: Borrowed cumulative	Cumulative federal loan amount owed for grad

See notes at end of table.

**Table J-2. Derived variables in the graduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
FEDOWE3	Financial aid: Borrowed cumulative	Cumulative federal loan amount owed for undergrad or grad
FEDPCT_AC	Financial aid: Ratios	Ratio of federal aid to total aid
FGRTLN	Financial aid: Federal	Total federal loans and grants
GENDER	Student's characteristics	Gender
GLOANSR_AC	Financial aid: Package	Loan package by type of loan
GLOANSRC_AC	Financial aid: Package	Loan package by source of loan
GOVNAME	State characteristics	Name of primary postsecondary governance entity
GOVNAME2	State characteristics	Name of sub-system postsecondary governance entity
GOVSTRUCT	State characteristics	State postsecondary governance structure
GPLUSAMT	Financial aid: Federal loans	Direct PLUS Loans to graduate students
GPLUSCUM	Financial aid: Borrowed cumulative	Cumulative Graduate PLUS Loan amount
GPLUSRAT_AC	Financial aid: Ratios	Ratio of Graduate PLUS Loans to total loans
GRADDEG	Education: Program	Graduate degree program
GRADGPG	Education: Program	Graduate degree programs
GRADLVL_AC	Education: Program	Graduate class level
GRADMAJ	Education: Program	Graduate field of study
GRADPGM	Education: Program	Graduate programs
GRADSTAT	Education: Attendance	Graduate degree and attendance pattern
GRSTAMT	Financial aid: Other	Total assistantships amount
GRGRDAMT	Financial aid: Other	Other graduate assistantship amount
GRINFEL	Financial aid: Grants	Graduate fellowship amount
GRNTSRC	Financial aid: Package	Grant package by source of grant
GRRESAMT	Financial aid: Other	Graduate research assistantship amount
GRTCST	Financial aid: Ratios	Ratio of grant aid to student budget
GRTEAMT	Financial aid: Other	Graduate teaching assistantship amount
GRTPTCTN	Financial aid: Ratios	Ratio of grants to total aid
GRTPTCTN	Financial aid: Ratios	Ratio of grant aid to tuition
GRTSNEED	Financial aid: Need	Grant amount exceeding federal need
HBCU	Institutional characteristics	Historically black college indicator
HISPANIC	Student's characteristics	Race: Hispanic or Latino origin
HISPANIC_PCT17	State characteristics	Percent of state population (18-34) Hispanic, 2017
HISPANIC_PCT18	State characteristics	Percent of state population (18-34) Hispanic, 2018
HLOFFER	Institutional characteristics	Highest level of offering at NPSAS institution
HSIZE	Student's family	Family size (dependent & independent)
ID	Survey sample	Analysis ID
INCOMEG	Finances: Income	Total income (categorical)
INCPCT1	Financial aid: Ratios	Student budget as percent of income
INCPCT2	Financial aid: Ratios	Tuition as percent of income
INDEPINC	Finances: Income	Independent students: student and spouse's income
INGRTAMT	Financial aid: Grants	Institutional grants total
INJURIS	Institution: expenses	Tuition jurisdiction
INLNAMT	Financial aid: Institutional	Institutional loans
INPCTTN	Financial aid: Ratios	Ratio of graduate assistantships and institutional grants to tuition
INSMILAMT	Financial aid: Grants	Institution military/armed forces grants
INSTAMT	Financial aid: Institutional	Institutional aid total
INSTCAT	Institution type	Institutional category
INSTCST	Financial aid: Ratios	Ratio of graduate assistantships and institutional grants to student budget
INSTGPCT_AC	Financial aid: Ratios	Ratio of institutional grants to total aid
INSTID	Institutional characteristics	IPEDS unique identification number of the institution (UNITID)
INSTPCT_AC	Financial aid: Ratios	Ratio of institution aid to total aid
INSTSTAT	Institutional characteristics	NPSAS institution state
INSTWRK	Financial aid: Institutional	Institutional work-study

See notes at end of table.

**Table J-2. Derived variables in the graduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
INSVETAMT	Financial aid: Grants	Institutional Veterans' education benefits
INSWAIV	Financial aid: Grants	Institutional tuition & fee waivers
LOANPCT_AC	Financial aid: Ratios	Ratio of loans to total aid
LOCALE	Institutional characteristics	Degree of urbanization
MAJORNSF	Education: Program	Major field of study classified by the National Science Foundation (NSF)
MAJORS	Education: Program	Field of study or major (detailed)
MAJORSGR	Education: Program	Graduate field of study or major
MED_HH_INC17	State characteristics	State median household income, 2017
MED_HH_INC18	State characteristics	State median household income, 2018
MFT	Education: Attendance	Number of months enrolled full-time months
MHT	Education: Attendance	Number of months enrolled half-time
MILTOT	Financial aid: Total	Total federal and non-federal Military/Armed Forces grants
MILTYPE	Student's characteristics	Military type
MILTYPE2	Student's characteristics	Military type (for dependency)
MLT	Education: Attendance	Number of months enrolled less than half-time
MPT	Education: Attendance	Number of months enrolled part-time months
MSTINST	Education: Attendance	UNITID of institution with student's highest enrollment intensity
NATIVEAMERICAN_PCT17	State characteristics	Percent of state population (18-34) Native American, 2017
NATIVEAMERICAN_PCT18	State characteristics	Percent of state population (18-34) Native American, 2018
NETCST1_AC	Financial aid: Net price	Student budget minus all aid
NETCST10	Financial aid: Net price	Tuition and fees minus federal grants
NETCST12	Financial aid: Net price	Tuition and fees minus state grants
NETCST13	Financial aid: Net price	Tuition and fees minus institutional grants
NETCST14	Financial aid: Net price	Tuition and fees minus all non-federal grants
NETCST15	Financial aid: Net price	Tuition and fees minus state and institutional grants
NETCST16	Financial aid: Net price	Student budget minus federal and state grants
NETCST17_AC	Financial aid: Net price	Student budget minus all grants and loans
NETCST2	Financial aid: Net price	Student budget minus federal grants
NETCST3	Financial aid: Net price	Student budget minus all grants
NETCST41	Financial aid: Net price	Student budget minus all aid except private loans
NETCST43_AC	Financial aid: Net price	Student budget minus all aid except loans
NETCST44	Financial aid: Net price	Tuition and fees minus all graduate assistantships and institutional grants
NETCST9	Financial aid: Net price	Tuition and fees minus all grants
OBereg	Institutional characteristics	NPSAS institution region
OTHFDGRT	Financial aid: Grants	Other federal grants (not Title IV)
OTHGTAMT	Financial aid: Grants	Outside grants (private & employer)
OTHRSCR_AC	Financial aid: Other	Outside sources total
OTHTYPE	Financial aid: Other	Total other type of aid (assistantships and VA)
OTHTYPE2	Financial aid: Other	Total other type of aid including work-study
PARED1_AC	Parents and family	Parent 1 highest education level
PARED2_AC	Parents and family	Parent 2 highest education level
PAREduc_AC	Parents and family	Parents' highest education level
PBF_2YEAR17	State characteristics	State PBF in public 2-years, 2017
PBF_2YEAR18	State characteristics	State PBF in public 2-years, 2018
PBF_4YEAR17	State characteristics	State PBF in public 4-years, 2017
PBF_4YEAR18	State characteristics	State PBF in public 4-years, 2018
PBF17	State characteristics	State performance-based funding policy, 2017
PBF18	State characteristics	State performance-based funding policy, 2018
PCGDP17	State characteristics	State GDP per capita, 2017
PCGDP18	State characteristics	State GDP per capita, 2018
PCT_BA17	State characteristics	Percent adults with BA or higher, 2017
PCT_BA18	State characteristics	Percent adults with BA or higher, 2018
PCTENR2M	Institutional characteristics	Percent enrolled: two or more races

See notes at end of table.

**Table J-2. Derived variables in the graduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
PCTENRAN	Institutional characteristics	Percent enrolled: American Indian/Alaskan Native
PCTENRAP	Institutional characteristics	Percent enrolled: Asian/Pacific Islander
PCTENRAS	Institutional characteristics	Percent enrolled: Asian
PCTENRBK	Institutional characteristics	Percent enrolled: Black, non-Hispanic
PCTENRHS	Institutional characteristics	Percent enrolled: Hispanic
PCTENRNH	Institutional characteristics	Percent enrolled: Native Hawaiian or other Pacific Islander
PCTENRNR	Institutional characteristics	Percent enrolled: Nonresident Alien
PCTENRUN	Institutional characteristics	Percent enrolled: Race/ethnicity unknown
PCTENRWH	Institutional characteristics	Percent enrolled: White, non-Hispanic
PCTPOV	Finances: Income	Income percent of poverty level
PELLCUM	Financial aid: Federal grants	Cumulative Pell amount
PELLFST	Financial aid: Federal grants	First year received a Pell grant
PELLLST	Financial aid: Federal grants	Last year received a Pell grant
PELLYRS	Financial aid: Federal grants	Number of years received Pell grants
PERKAMT	Financial aid: Federal loans	Perkins loan
PERKCUM1	Financial aid: Borrowed cumulative	Cumulative Perkins amount for undergrad
PERKCUM2	Financial aid: Borrowed cumulative	Cumulative Perkins amount for grad
PERKCUM3	Financial aid: Borrowed cumulative	Cumulative Perkins amount for undergrad and grad
PGMAIDLG	Education: Program	Graduate program and largest financial aid type
PGMSEC	Education: Program	Graduate program and institution type
PHSLOAN	Financial aid: Federal loans	Federal health professions loans
PLUSCUM	Financial aid: Borrowed cumulative	Cumulative Parent PLUS Loans
PRIVAIID	Financial aid: Grants	Private source grants
PROGSTAT_AC	Education: Attainment	Completed degree program in 2017-18
RAASIAN	Student's characteristics	Race: Asian
RABLACK	Student's characteristics	Race: Black or African American
RACE	Student's characteristics	Race/ethnicity (with multiple)
RACE2	Student's characteristics	Race/ethnicity (with multiple) without foreign students
RACECEN	Student's characteristics	Race/ethnicity Census categories
RACESEX	Student's characteristics	Race/ethnicity (with multiple) and gender
RAINDIAN	Student's characteristics	Race: American Indian or Alaska Native
RAISLAND	Student's characteristics	Race: Native Hawaiian or other Pacific Islander
RAWHITE	Student's characteristics	Race: White
SAMESTAT	Student's characteristics	Attend institution in state of legal residence
SECTOR1	Institution type	NPSAS institution type (IPEDS sector)
SECTOR10	Institution type	NPSAS institution sector (10 categories)
SECTOR11	Institution type	NPSAS institution sector (11 categories)
SECTOR4	Institution type	NPSAS institution sector (4 with multiple)
SFAMNUM	Student's family	Independent students: Family size
SINCOL	Student's family	Independent students: Number of family members in college
SINGLPAR	Student's characteristics	Single parent, independent student
SMARITAL	Student's characteristics	Marital status
SNEED1	Financial aid: Need	Student budget minus EFC
SNEED2_AC	Financial aid: Need	Student budget minus EFC minus total aid
SNEED3	Financial aid: Need	Student budget minus EFC minus federal grants
SNEED4	Financial aid: Need	Student budget minus EFC and aid subject to EFC limitation
SNEED5	Financial aid: Need	Student budget minus EFC minus all grants
SNEED7	Financial aid: Need	Student budget minus EFC, federal and state grants
SNEED8	Financial aid: Need	Student budget minus EFC & federal, state, and other grants
SNEED9	Financial aid: Need	Student budget minus EFC & all aid except private loans
SPINCOL	Student's family	Independent students: Spouse attending college
STAFCT2	Financial aid: Federal loans	Direct Unsubsidized Loan total maximum
STAFFAMT	Financial aid: Federal loans	Direct Subsidized and Unsubsidized Loans

See notes at end of table.

**Table J-2. Derived variables in the graduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
STAFFST	Financial aid: Federal loans	Year of first Direct Subsidized or Unsubsidized Loan
STAFST	Financial aid: Federal loans	Year of last Direct Subsidized or Unsubsidized Loan
STAFUNSB	Financial aid: Federal loans	Direct Unsubsidized Loans
STAFYRS	Financial aid: Federal loans	Number of years received Direct Subsidized or Unsubsidized Loans
STAPCT_AC	Financial aid: Ratios	Ratio of state aid to total aid
STATEAMT	Financial aid: State	State aid total
STATNEED	Financial aid: State	State need-based grants
STATNOND	Financial aid: State	State non-need & merit grants
STEMMAJ	Education: Program	Major field of study with a focus on STEM fields
STEMMAJ2	Education: Program	Major field of study with a focus on STEM fields (in degree program)
STFCUM1	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized and Unsubsidized Loans for undergrad
STFCUM2	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized and Unsubsidized Loans for grad
STFCUM3	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized & Unsubsidized Loans for undergrad & grad
STGRPCT_AC	Financial aid: Ratios	Ratio of state grants to total aid
STGTAMT	Financial aid: State	State grants total
STLNAMT	Financial aid: State	State loans
STMERIT	Financial aid: State	State merit-only grants
STMILAMT	Financial aid: State	State military/armed forces grants
STNDMRT	Financial aid: State	State grants based both on need and merit
STNDONLY	Financial aid: State	State need-based only grants
STNOND1	Financial aid: State	State non-need grants
STSBCUM1	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized Loans for undergrad
STSBCUM2	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized Loans for grad
STSBCUM3	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized Loans for undergrad and grad
STUDMULT	Education: Attendance	Number of institutions attended
STUSERV1	Institutional characteristics	Institution offers employment services
STUSERV2	Institutional characteristics	Institution offers placement services
STUSERV3	Institutional characteristics	Institution offers on-campus childcare
STUSTATE	Student's characteristics	State of legal residence
STVETAMT	Financial aid: State	State Veterans' education benefits
STWKAMT	Financial aid: State	State work-study
STYPELST	Student's characteristics	Student type indicator
SUBCUM1	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized and Perkins Loans for undergrad
SUBCUM2	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized and Perkins Loans for grad
SUBCUM3	Financial aid: Borrowed cumulative	Cumulative Direct Subsidized and Perkins Loans for undergrad and grad
T4LNAMT1	Financial aid: Federal loans	Title IV loans
TEACHGRT	Financial aid: Federal grants	Federal TEACH grant amount
TFEDAID	Financial aid: Federal	Total federal aid (excludes Veterans'/DOD aid)
TFEDAID2	Financial aid: Federal	Total federal aid (includes Veterans'/DOD aid)
TFEDGRT	Financial aid: Federal grants	Total federal grants (excludes Veterans'/DOD aid)
TFEDGRT2	Financial aid: Federal grants	Total federal grants and Veterans'/DOD aid
TFEDLN	Financial aid: Federal loans	Total federal loans
TFEDWRK	Financial aid: Federal	Federal work-study
TGRTLN_AC	Financial aid: Total	Total loans and grants
TITIVAMT	Financial aid: Federal	Total federal Title IV aid
TNFEDAID_AC	Financial aid: Total	Total non-federal aid
TNFEDGRT	Financial aid: Total	Total non-federal grants
TNFEDLN_AC	Financial aid: Total	Total non-federal loans
TOTAID_AC	Financial aid: Total	Total aid amount

See notes at end of table.



**Table J-2. Derived variables in the graduate analysis file: 2017–18—Continued**

Variable name	Subject	Variable label
TOTAID2	Financial aid: Total	Total federal (Title IV), state, & institutional aid
TOTAID7_AC	Financial aid: Total	Total aid (excludes Veterans/DOD aid)
TOTAID8	Financial aid: Total	Total aid excluding private loans
TOTAL	Institutional characteristics	NPSAS institution 12-month total enrollment
TOTAL_POP17	State characteristics	Total state population (18-34), 2017
TOTAL_POP18	State characteristics	Total state population (18-34), 2018
TOTGRT	Financial aid: Total	Total grants
TOTGRT2	Financial aid: Total	Total grants and Veterans/DOD aid
TOTGRT4	Financial aid: Total	Total state and institutional grants
TOTGRT5	Financial aid: Total	Total graduate grants/fellowships excluding employer aid
TOTLOAN_AC	Financial aid: Total	Total loans
TOTLOAN3	Financial aid: Total	Total loans excluding private loans
TOTWKST	Financial aid: Total	Total work-study
TUIT_AUTH_STBOARD17	State characteristics	State has tuition authority: state board, 2017
TUIT_AUTH_STBOARD18	State characteristics	State has tuition authority: state board, 2018
TUITION_REV17	State characteristics	Net tuition revenue (thousands), 2017
TUITION_REV18	State characteristics	Net tuition revenue (thousands), 2018
TUITION2	Institution price	Tuition and fees paid
UNEMP_RATE17	State characteristics	State unemployment rate, 2017
UNEMP_RATE18	State characteristics	State unemployment rate, 2018
UNSBLOAN_AC	Financial aid: Total	Total unsubsidized loans (all sources)
VADODAMT	Financial aid: Other	Federal Veterans' benefits and Department of Defense
VADODAMT2	Financial aid: Other	Federal Veterans' benefits (excluding housing) and DOD aid
VETBEN	Financial aid: Other	Federal Veterans' education benefits
VETBEN2	Financial aid: Other	Federal Veterans' education benefits (excluding housing)
VETBENSRC	Financial aid: Other	Type of recipient of federal Veterans' education benefits
VETERAN	Student's characteristics	Veteran status
VETERAN2	Student's characteristics	Veteran status (for dependency)
VETPROG1	Institutional characteristics	Institution offers Yellow Ribbon Program for Veterans
VETPROG2	Institutional characteristics	Institution offers credit for military training
VETPROG3	Institutional characteristics	Institution offers dedicated point of contact for Veterans, military
VETPROG4	Institutional characteristics	Institution has recognized student Veteran organization
VETPROG5	Institutional characteristics	Institution is member of Servicemembers Opportunity Colleges
VETTOT	Financial aid: Total	Total federal and non-federal Veterans' education benefits
WHITE_PCT17	State characteristics	Percent of state population (18-34) White, 2017
WHITE_PCT18	State characteristics	Percent of state population (18-34) White, 2018
WORKPCT_AC	Financial aid: Ratios	Ratio of work-study to total aid

NOTE: BA = bachelor's degree; CIP = Classification of Instructional Programs; DOD = Department of Defense; EFC = expected family contribution; FWS = federal work-study; GDP = gross domestic product; IPEDS = Integrated Postsecondary Education Data System; NPSAS = National Postsecondary Student Aid Study; PBF = performance-based funding; STEM = science, technology, engineering, and mathematics; VA = Department of Veterans Affairs.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

## **Appendix K. Nonresponse Bias Analyses**

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**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Control and level of institution					(Effect size = 0.24)			(Effect size = 0.25)	
Public less-than-2-year	20	20	4.79	0.93	-3.86	-80.57	3.15	-1.64	-34.32
Public 2-year	710	250	15.75	17.76	2.02*	12.80	14.23	-1.52	-9.62
Public 4-year, non-doctorate-granting, primarily subbaccalaureate	120	30	2.44	3.09	0.65*	26.49	2.39	-0.05	-2.08
Public 4-year, non-doctorate-granting, primarily baccalaureate	170	60	3.68	4.27	0.59*	16.03	3.24	-0.44	-11.88
Public 4-year, doctorate-granting	320	50	5.87	7.93	2.06*	35.03	5.53	-0.34	-5.83
Private nonprofit less-than-4-year	20	10	4.00	5.54	1.54	38.55	7.41	3.41	85.25
Private nonprofit 4-year, non-doctorate-granting	280	90	13.36	14.40	1.03	7.73	12.69	-0.68	-5.08
Private nonprofit 4-year, doctorate-granting	250	70	9.29	9.03	-0.26	-2.85	8.41	-0.89	-9.56
Private for-profit less-than-2-year	100	90	22.66	21.85	-0.81	-3.59	19.42	-3.24	-14.30
Private for-profit 2-year	90	100	10.86	8.50	-2.36	-21.76	15.12	4.26	39.22
Private for-profit 4-year	100	60	7.29	6.71	-0.58	-8.02	8.42	1.13	15.47
State, control, and level of institution					(Effect size = ‡)			(Effect size = ‡)	
Alabama									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	20	0.60	0.47	-0.13	-21.97	0.63	0.03	4.79
Alaska									
Public 2-year	†	†	†	†	†	†	†	†	†
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Arizona									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	20	1.11	0.47	-0.64*	-57.63	0.43	-0.68*	-61.16
Arkansas									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.72	0.79	0.07	10.04	0.69	-0.02	-3.36

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
California									
Public 2-year	60	40	1.69	1.61	-0.09	-5.07	1.53	-0.16	-9.36
Public 4-year	30	10	0.76	0.85	0.09	11.59	0.67	-0.10	-12.58
Other	20	10	7.39	6.32	-1.07	-14.50	6.48	-0.92	-12.39
Colorado									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	1.05	0.83	-0.22	-21.26	1.71	0.66	63.42
Connecticut									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.69	0.78	0.09	13.60	0.94	0.25	36.40
Delaware									
Public 2-year	†	†	†	†	†	†	†	†	†
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡
District of Columbia									
Public 2-year	†	†	†	†	†	†	†	†	†
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	10	0.26	0.25	-0.01	-3.59	0.31	0.05	18.77
Florida									
Public 2-year	20	10	0.49	0.45	-0.04	-7.45	0.54	0.05	10.22
Public 4-year	40	10	0.67	0.90	0.24*	35.44	0.60	-0.06	-9.33
Other	20	10	3.48	2.21	-1.26	-36.32	2.21	-1.27	-36.50
Georgia									
Public 2-year	10	10	0.37	0.23	-0.15*	-39.64	0.30	-0.07	-20.02
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	3.11	4.06	0.95	30.60	3.13	0.03	0.86
Hawaii									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	10	0.2	0.18	-0.02	-10.02	0.12	-0.08*	-39.12

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Idaho									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.44	0.43	-0.01	-2.88	8.02	7.58*	1,726.32
Illinois									
Public 2-year	40	10	0.78	0.93	0.15	18.91	0.74	-0.04	-5.44
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	2.62	3.10	0.48	18.35	4.10	1.48	56.53
Indiana									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Iowa									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Kansas									
Public 2-year	20	10	0.41	0.40	-0.01	-1.28	0.47	0.06	15.39
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.77	0.57	-0.20	-25.83	1.05	0.28	35.78
Kentucky									
Public 2-year	10	10	0.26	0.28	0.02	6.05	0.28	0.02	7.88
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.82	0.86	0.04	4.91	0.66	-0.17	-20.14
Louisiana									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	1.05	1.27	0.22	21.09	1.20	0.15	14.77
Maine									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.34	0.40	0.06	17.53	0.37	0.03	7.35

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Maryland									
Public 2-year	10	10	0.26	0.28	0.02	6.05	0.24	-0.02	-7.10
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	1.01	0.68	-0.33	-32.28	1.03	0.03	2.58
Massachusetts									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	30	10	2.10	2.28	0.18	8.52	1.74	-0.36	-17.23
Michigan									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	10	1.80	1.57	-0.23	-12.70	2.05	0.25	13.88
Minnesota									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.67	0.86	0.19	28.64	1.08	0.41	61.08
Mississippi									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	20	0.50	0.33	-0.18*	-35.31	0.51	#	0.58
Missouri									
Public 2-year	10	10	0.28	0.28	#	-0.19	0.24	-0.04	-13.44
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	1.36	1.48	0.13	9.28	1.00	-0.36	-26.15
Montana									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	10	0.23	0.18	-0.05	-22.87	0.60	0.37	163.39
Nebraska									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	30	10	0.50	0.65	0.15*	29.38	0.52	0.01	2.23

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Nevada									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.50	0.45	-0.05	-10.43	0.39	-0.11	-21.77
New Hampshire									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.39	0.38	-0.01	-3.59	0.27	-0.12*	-29.63
New Jersey									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	2.28	1.41	-0.87	-38.30	1.61	-0.67	-29.37
New Mexico									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡
New York									
Public 2-year	30	10	0.62	0.78	0.16*	25.84	0.56	-0.06	-9.59
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	8.07	7.09	-0.98	-12.19	5.21	-2.86	-35.44
North Carolina									
Public 2-year	40	20	0.96	1.08	0.12	12.42	0.82	-0.14	-14.65
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	1.46	1.86	0.40	27.71	1.57	0.11	7.77
North Dakota									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	10	0.24	0.15	-0.09	-38.30	0.52	0.28	113.64
Ohio									
Public 2-year	30	10	0.54	0.70	0.17*	30.88	0.43	-0.10*	-19.19
Public 4-year	30	10	0.55	0.70	0.15*	27.03	0.66	0.11	19.95
Other	20	10	4.28	3.46	-0.82	-19.08	3.80	-0.47	-11.00

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Oklahoma									
Public 2-year	20	10	0.36	0.38	0.02	5.17	0.28	-0.07	-20.71
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	20	1.12	0.77	-0.35	-30.89	1.17	0.05	4.82
Oregon									
Public 2-year	10	10	0.28	0.30	0.02	8.89	0.21	-0.07	-23.58
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.75	0.62	-0.13	-17.71	0.70	-0.05	-7.22
Pennsylvania									
Public 2-year	10	10	0.28	0.30	0.02	8.89	0.21	-0.07	-25.20
Public 4-year	40	10	0.72	0.90	0.19*	26.21	0.76	0.04	5.81
Other	20	10	3.19	2.86	-0.33	-10.24	2.78	-0.41	-12.86
Puerto Rico									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	10	10	0.23	0.18	-0.05	-22.87	0.18	-0.05	-22.01
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rhode Island									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡
South Carolina									
Public 2-year	10	10	0.33	0.23	-0.10	-30.58	0.40	0.08	23.87
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	1.55	1.91	0.35	22.74	1.58	0.03	1.89
South Dakota									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	10	0.24	0.23	-0.02	-7.45	0.79	0.54	222.70
Tennessee									
Public 2-year	30	10	0.62	0.68	0.06	9.60	0.61	#	-0.64
Public 4-year	10	10	0.16	0.13	-0.04	-22.87	0.12	-0.05	-28.38
Other	20	10	0.94	0.74	-0.20	-21.32	0.64	-0.30	-31.89

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Texas									
Public 2-year	50	10	0.98	1.18	0.20*	20.83	0.82	-0.15*	-15.82
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	4.66	2.56	-2.09	-44.97	3.39	-1.27	-27.20
Utah									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	20	0.90	0.58	-0.32	-35.69	0.55	-0.35	-39.11
Vermont									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	10	0.26	0.20	-0.06	-22.87	0.25	-0.01	-5.34
Virginia									
Public 2-year	20	10	0.39	0.43	0.04	9.26	0.34	-0.05	-13.66
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	1.31	1.52	0.20	15.29	1.71	0.39	29.80
Washington									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	20	10	0.57	0.58	0.01	1.37	0.47	-0.10	-17.98
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡
West Virginia									
Public 2-year	10	10	0.28	0.13	-0.15	-55.12	0.13	-0.15	-53.43
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	10	20	0.75	0.62	-0.13	-17.15	1.01	0.26	34.60
Wisconsin									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	20	10	0.86	0.93	0.07	8.47	0.85	#	-0.01
Wyoming									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = 0.11)			(Effect size = 0.11)	
Associate's	780	310	23.06	23.18	0.12	0.52	20.89	-2.17	-9.43
Research and doctoral	260	50	5.30	7.01	1.71*	32.31	4.90	-0.40	-7.49
Master's	460	130	12.25	13.84	1.59	12.95	10.28	-1.97*	-16.12
Baccalaureate	300	100	11.63	12.62	0.99	8.55	11.09	-0.54	-4.63
Special focus and other	140	50	8.23	7.35	-0.88	-10.68	9.03	0.80	9.75
Unavailable or unknown	240	210	39.53	36.00	-3.53	-8.94	43.82	4.28	10.83
Degree of urbanization					(Effect size = 0.16)			(Effect size = 0.24)	
Large city	410	160	21.25	19.79	-1.46	-6.87	18.92	-2.34	-10.99
Midsized city	250	110	11.84	9.92	-1.92	-16.20	10.46	-1.38	-11.69
Small city	320	100	12.66	14.72	2.06	16.28	15.24	2.58	20.39
Large suburb	350	160	28.09	29.53	1.44	5.13	27.34	-0.75	-2.66
Midsized suburb	70	40	2.76	2.89	0.13	4.59	2.82	0.06	2.13
Small suburb	60	20	1.65	2.05	0.40*	24.45	3.51	1.86	112.54
Urban area on fringe of town	60	10	1.43	1.94	0.50*	35.01	1.52	0.09	6.04
Urban area distant from town	210	60	4.98	6.03	1.05*	20.98	7.38	2.40	48.25
Urban area remote from town	190	60	4.77	5.47	0.70	14.78	5.30	0.54	11.30
Rural area on fringe of town	180	70	6.06	5.29	-0.78	-12.83	5.57	-0.50	-8.21
Rural area distant from town	60	20	3.55	1.70	-1.85	-52.22	1.45	-2.10	-59.18
Rural area remote from town	30	20	0.95	0.68	-0.27	-28.77	0.49	-0.46*	-48.48
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = 0.12)			(Effect size = 0.45)	
New England	170	60	5.50	6.12	0.62	11.21	5.04	-0.46	-8.44
Mideast	260	90	18.36	16.76	-1.60	-8.71	14.24	-4.12	-22.44
Great Lakes	290	80	14.35	15.10	0.75	5.24	15.18	0.84	5.84
Plains	260	80	7.27	8.40	1.13*	15.53	8.24	0.97	13.32
Southeast	580	250	24.32	25.69	1.38	5.66	22.90	-1.41	-5.81
Southwest	210	90	10.36	8.10	-2.27	-21.89	7.99	-2.37	-22.91
Rocky Mountains	120	60	3.85	3.59	-0.27	-6.89	12.15	8.30*	215.20
Far West	250	120	13.86	13.32	-0.54	-3.92	12.17	-1.70	-12.25
Outlying Areas	30	10	2.13	2.93	0.80*	37.71	2.10	-0.03	-1.48

See notes at end of table.



**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = 0.02)			(Effect size = #)	
Yes	50	20	1.36	1.55	0.19	14.06	1.41	0.05	3.35
No or unavailable or unknown	2,120	810	98.64	98.45	-0.19	-0.19	98.59	-0.05	-0.05
Hispanic-Serving Institution					(Effect size = 0.01)			(Effect size = 0.03)	
Yes	370	160	22.98	22.64	-0.34	-1.48	21.84	-1.14	-4.96
No	1,810	670	77.02	77.36	0.34	0.44	78.16	1.14	1.48
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0-3	570	230	25.18	21.51	-3.67	-14.58	28.89	3.70	14.70
4-8	630	190	22.21	24.45	2.24	10.10	21.22	-0.99	-4.45
9-18	500	170	23.92	27.88	3.96*	16.56	24.91	0.99	4.14
19 or more	460	240	28.50	25.89	-2.61	-9.16	24.80	-3.70	-12.99
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0-1	840	380	45.42	44.61	-0.82	-1.80	48.99	3.57	7.85
2	390	140	15.54	13.82	-1.72	-11.07	11.61	-3.94*	-25.33
3-4	390	130	12.80	12.66	-0.14	-1.08	11.99	-0.81	-6.29
5 or more	540	180	26.05	28.65	2.60	9.98	27.22	1.18	4.52
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0-4	630	270	28.05	26.41	-1.64	-5.85	30.06	2.01	7.16
5-8	500	170	19.98	21.87	1.89	9.46	22.00	2.02	10.11
9-18	510	180	19.43	19.77	0.34	1.77	18.14	-1.28	-6.61
19 or more	520	210	32.36	31.69	-0.67	-2.06	29.62	-2.74	-8.47
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.14)			(Effect size = 0.07)	
1–996	440	310	54.64	47.88	-6.75*	-12.36	57.84	3.21	5.87
997–3,107	560	200	20.07	21.75	1.67	8.34	19.06	-1.02	-5.07
3,108–8,732	580	170	13.05	15.40	2.34*	17.95	12.07	-0.98	-7.55
8,733 or more	590	160	12.24	14.98	2.74*	22.35	11.03	-1.21	-9.86
Total male undergraduate enrollment <sup>5</sup>					(Effect size = 0.14)			(Effect size = 0.07)	
1–383	440	320	54.70	47.78	-6.91*	-12.64	58.00	3.30	6.04
384–1,284	570	190	19.50	21.82	2.32	11.92	18.74	-0.76	-3.89
1,285–3,715	570	180	13.54	15.14	1.61	11.88	12.14	-1.39	-10.28
3,716 or more	600	150	12.27	15.25	2.98*	24.32	11.11	-1.15	-9.41
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.13)			(Effect size = 0.07)	
1–538	460	300	55.49	49.17	-6.31*	-11.38	58.73	3.24	5.84
539–1,808	540	210	18.92	20.38	1.46	7.71	17.88	-1.04	-5.51
1,809–4,954	580	170	13.33	15.42	2.09*	15.66	12.35	-0.98	-7.37
4,955 or more	600	150	12.26	15.03	2.77*	22.57	11.05	-1.22	-9.91
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = 0.13)			(Effect size = 0.09)	
1–38	580	180	23.77	26.77	3.00	12.63	26.68	2.91	12.26
39–51	550	170	20.70	23.31	2.61	12.59	20.96	0.25	1.23
52–65	500	170	17.99	18.28	0.29	1.63	18.28	0.29	1.63
66 or more	450	250	30.97	26.46	-4.51	-14.58	27.16	-3.82	-12.32
None or unknown	90	60	6.57	5.18	-1.39	-21.16	6.92	0.36	5.43
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = 0.09)			(Effect size = 0.18)	
1–7	480	260	42.43	42.76	0.34	0.79	51.01	8.58*	20.22
8–26	540	170	18.06	18.45	0.39	2.15	15.01	-3.05*	-16.90
27–48	530	180	18.27	16.68	-1.59	-8.68	14.10	-4.17*	-22.80
49 or more	540	170	14.67	16.92	2.25*	15.34	12.95	-1.72	-11.70
None or unknown	90	60	6.57	5.18	-1.39	-21.16	6.92	0.36	5.43

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = 0.12)			(Effect size = 0.08)	
1–8	470	270	38.78	35.90	-2.87	-7.41	41.73	2.96	7.63
9–32	510	170	19.23	20.44	1.22	6.33	18.85	-0.37	-1.94
33–73	550	170	16.49	15.60	-0.89	-5.39	13.85	-2.64	-16.01
74 or more	560	150	18.94	22.87	3.93*	20.76	18.64	-0.30	-1.59
None or unknown	90	60	6.57	5.18	-1.39	-21.16	6.92	0.36	5.43
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = 0.10)			(Effect size = 0.05)	
1–17	510	220	18.61	21.96	3.35*	17.98	19.98	1.37	7.37
18–49	560	160	18.74	19.13	0.39	2.06	18.77	0.03	0.14
50–70	550	170	25.93	25.86	-0.07	-0.28	24.03	-1.91	-7.35
71 or more	470	230	30.15	27.88	-2.27	-7.53	30.30	0.15	0.51
None or unknown	90	60	6.57	5.18	-1.39	-21.16	6.92	0.36	5.43
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = 0.17)			(Effect size = 0.06)	
\$1–\$7,555	520	190	17.00	20.67	3.66*	21.53	17.44	0.44	2.58
\$7,556–\$12,488	530	180	22.19	26.64	4.45*	20.06	22.76	0.57	2.57
\$12,489–\$19,479	530	180	27.94	23.60	-4.34	-15.55	27.95	0.01	0.03
\$19,480 or more	490	220	25.13	22.83	-2.29	-9.13	23.01	-2.12	-8.43
None or unknown	100	70	7.73	6.26	-1.47	-19.06	8.83	1.10	14.21
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = 0.14)			(Effect size = 0.17)	
1–66	550	200	31.56	34.69	3.12	9.89	38.23	6.66*	21.11
67–81	510	200	21.90	17.90	-4.00	-18.27	16.75	-5.16*	-23.54
82–94	530	200	18.63	17.43	-1.20	-6.44	17.86	-0.77	-4.12
95 or more	500	180	21.34	24.81	3.47*	16.27	20.24	-1.09	-5.13
None or unknown	90	60	6.57	5.18	-1.39	-21.16	6.92	0.36	5.43

See notes at end of table.

**Table K-1. Undergraduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = 0.13)		(Effect size = 0.06)		
0–111	270	100	9.40	9.57	0.17	1.82	8.03	-1.37	-14.54
112–289	280	80	8.34	10.24	1.89*	22.69	8.45	0.11	1.32
290–665	280	70	7.63	9.15	1.51*	19.85	6.99	-0.64	-8.45
666 or more	310	50	6.13	8.10	1.97*	32.07	5.71	-0.42	-6.85
Unknown	1,040	530	68.50	62.95	-5.55*	-8.10	70.82	2.32	3.39
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = 0.11)		(Effect size = 0.08)		
0–38	460	260	44.22	39.71	-4.51	-10.19	47.06	2.84	6.42
39–92	520	180	19.06	20.53	1.47	7.73	17.61	-1.45	-7.60
93–239	530	180	14.46	15.79	1.34	9.25	13.75	-0.71	-4.90
240 or more	560	140	12.43	14.78	2.35*	18.89	10.95	-1.48*	-11.89
Unknown	100	80	9.83	9.18	-0.65	-6.63	10.63	0.79	8.08
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = 0.10)		(Effect size = 0.09)		
\$0–\$4,870	480	230	31.57	31.62	0.05	0.16	34.69	3.12	9.89
\$4,871–\$5,914	490	220	21.18	19.88	-1.30	-6.13	20.55	-0.63	-2.99
\$5,915–\$9,272	540	170	18.95	18.08	-0.87	-4.59	16.46	-2.49	-13.16
\$9,273 or more	570	140	20.57	24.16	3.59*	17.46	19.47	-1.10	-5.33
Unknown	100	70	7.73	6.26	-1.47	-19.06	8.83	1.10	14.21

† Not applicable.

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-2. Undergraduate institution-level nonresponse bias analysis for select variables for public less-than-2-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Midsized city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Large suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Midsized suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	#	10	43.64	8.04	-35.60	-81.58	3.33	-40.31	-92.37
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	10	10	9.25	56.41	47.16*	509.69	17.82	8.57	92.64
Southwest	#	10	10.69	22.01	11.32	105.89	19.72	9.03	84.41
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Hispanic-Serving Institution					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	20	20	99.32	94.61	-4.71	-4.75	98.87	-0.45	-0.46

See notes at end of table.

**Table K-2. Undergraduate institution-level nonresponse bias analysis for select variables for public less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
0–1	10	10	50.21	13.48	-36.73	-73.15	60.29	10.08	20.07
2–3	#	10	21.65	23.55	1.90	8.79	20.70	-0.95	-4.39
4–10	#	10	9.53	13.43	3.90	40.89	4.97	-4.56	-47.81
11 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
0	10	10	49.90	25.75	-24.14	-48.39	64.97	15.07	30.20
1	‡	‡	‡	‡	‡	‡	‡	‡	‡
2	10	10	28.66	17.31	-11.35	-39.60	6.63	-22.03	-76.88
3 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
0–2	#	10	28.54	14.97	-13.57	-47.56	61.99	33.45	117.20
3–7	‡	‡	‡	‡	‡	‡	‡	‡	‡
8–13	#	10	8.20	12.84	4.64	56.55	14.21	6.01	73.24
14 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total undergraduate enrollment <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
1–184	#	10	65.64	17.66	-47.98*	-73.09	62.53	-3.11	-4.74
185–514	#	10	21.02	5.39	-15.63	-74.34	1.35	-19.67	-93.57
515–944	10	10	9.90	58.07	48.17*	486.59	26.98	17.08	172.56
945 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total male undergraduate enrollment <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
1–96	#	10	65.43	14.97	-50.46*	-77.12	61.22	-4.20	-6.42
97–271	#	10	16.06	8.09	-7.97	-49.62	2.66	-13.40	-83.43
272–542	10	10	15.46	58.07	42.61*	275.64	26.98	11.52	74.55
543 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-2. Undergraduate institution-level nonresponse bias analysis for select variables for public less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total female undergraduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–88	#	10	59.49	17.66	-41.83	-70.31	62.56	3.07	5.16
89–218	#	10	27.55	18.19	-9.36	-33.98	16.31	-11.24	-40.80
219–489	#	10	9.04	41.45	32.41	358.46	9.43	0.39	4.27
490 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–36	‡	‡	‡	‡	‡	‡	‡	‡	‡
37–48	‡	‡	‡	‡	‡	‡	‡	‡	‡
49–72	#	10	17.59	12.27	-5.32	-30.24	60.68	43.09	244.97
73 or more	#	10	53.64	44.14	-9.50	-17.71	10.27	-43.37	-80.85
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–3	‡	‡	‡	‡	‡	‡	‡	‡	‡
4–12	‡	‡	‡	‡	‡	‡	‡	‡	‡
13–33	#	10	23.43	51.54	28.11	119.97	23.41	-0.02	-0.08
34 or more	#	10	62.27	5.39	-56.87*	-91.34	1.20	-61.07*	-98.07
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	10	10	78.05	24.19	-53.86*	-69.01	65.74	-12.31	-15.77
1–8	#	10	9.99	16.13	6.14	61.44	7.29	-2.70	-26.99
9–18	#	10	7.81	44.14	36.33*	464.88	10.86	3.04	38.93
19 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	10	10	20.82	79.99	59.17*	284.18	35.64	14.82	71.19
1–20	‡	‡	‡	‡	‡	‡	‡	‡	‡
21 or more	#	10	77.68	8.09	-69.59*	-89.59	57.76	-19.92	-25.65

See notes at end of table.

**Table K-2. Undergraduate institution-level nonresponse bias analysis for select variables for public less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$1–\$3,793	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$3,794–\$7,150	#	10	4.87	14.97	10.09	207.07	6.42	1.55	31.77
\$7,151–\$12,963	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$12,964 or more	#	10	65.22	5.39	-59.82*	-91.73	58.89	-6.33	-9.71
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–47	‡	‡	‡	‡	‡	‡	‡	‡	‡
48–67	‡	‡	‡	‡	‡	‡	‡	‡	‡
68–82	#	10	71.40	41.45	-29.96	-41.96	9.92	-61.48*	-86.10
83 or more	#	10	9.98	8.09	-1.89	-18.97	2.51	-7.47	-74.86
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
5–7	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	20	20	98.99	97.30	-1.69	-1.71	99.36	0.37	0.37
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–4	‡	‡	‡	‡	‡	‡	‡	‡	‡
5–9	#	10	43.70	9.22	-34.48	-78.90	59.34	15.64	35.78
10–19	‡	‡	‡	‡	‡	‡	‡	‡	‡
20 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-2. Undergraduate institution-level nonresponse bias analysis for select variables for public less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$0–\$3,436	#	10	9.55	11.92	2.37	24.83	5.06	-4.49	-47.00
\$3,437–\$4,382	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$4,383–\$5,765	#	10	43.89	12.84	-31.04	-70.73	14.51	-29.38	-66.95
\$5,766 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-3. Undergraduate institution-level nonresponse bias analysis for select variables for public 2-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Degree of urbanization					(Effect size = 0.06)			(Effect size = 0.12)	
Large city	70	30	10.95	10.17	-0.78	-7.11	9.56	-1.39*	-12.73
Midsized city	50	20	7.23	7.06	-0.17	-2.32	7.35	0.12	1.70
Small city	90	30	11.67	12.01	0.33	2.86	11.49	-0.18	-1.53
Large suburb	110	40	15.39	15.68	0.29	1.87	15.26	-0.13	-0.86
Midsized suburb	20	10	3.10	2.82	-0.27	-8.83	2.72	-0.38	-12.37
Small suburb	20	10	2.58	2.68	0.10	3.93	2.96	0.37	14.49
Urban area on fringe of town	10	10	1.86	1.55	-0.31	-16.43	1.41	-0.45	-24.22
Urban area distant from town	80	30	11.15	11.72	0.57	5.09	13.99	2.83	25.40
Urban area remote from town	80	30	11.57	11.86	0.30	2.56	11.59	0.03	0.22
Rural area on fringe of town	120	40	16.84	17.23	0.40	2.35	16.22	-0.62	-3.66
Rural area distant from town	40	10	5.60	5.65	0.05	0.95	6.13	0.53	9.49
Rural area remote from town	10	10	2.07	1.55	-0.51	-24.79	1.33	-0.73*	-35.41
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	40	10	4.65	4.94	0.30	6.36	4.51	-0.14	-3.01
Mideast	70	20	9.30	9.75	0.45	4.84	9.07	-0.22	-2.41
Great Lakes	100	20	12.70	14.55	1.84*	14.51	12.99	0.29	2.28
Plains	80	20	11.15	11.86	0.71	6.36	12.09	0.93	8.36
Southeast	200	100	31.21	28.39	-2.82*	-9.04	32.00	0.78	2.51
Southwest	100	30	12.50	13.42	0.92	7.37	11.58	-0.91	-7.31
Rocky Mountains	30	10	3.92	4.38	0.45	11.56	3.79	-0.14	-3.52
Far West	90	50	14.05	12.57	-1.48*	-10.51	13.75	-0.29	-2.10
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Historically Black College or University					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No or unavailable or unknown	700	250	98.97	99.01	0.04	0.04	99.03	0.06	0.06
Hispanic-Serving Institution					(Effect size = 0.04)			(Effect size = 0.05)	
Yes	150	70	23.45	21.61	-1.84*	-7.83	21.41	-2.03*	-8.67
No	560	180	76.55	78.39	1.84*	2.40	78.59	2.03*	2.66

See notes at end of table.

**Table K-3. Undergraduate institution-level nonresponse bias analysis for select variables for public 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = 0.05)		(Effect size = 0.03)		
0–3	210	70	29.15	29.24	0.09	0.31	28.56	-0.59	-2.02
4–8	160	50	21.17	22.32	1.14	5.40	22.42	1.24	5.88
9–18	200	70	26.85	27.54	0.69	2.56	26.76	-0.10	-0.36
19 or more	150	70	22.83	20.90	-1.92*	-8.42	22.27	-0.56	-2.45
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = 0.04)		(Effect size = 0.04)		
0–1	320	120	46.08	45.06	-1.03	-2.23	47.78	1.70	3.69
2	120	30	16.22	17.51	1.30	8.01	15.80	-0.42	-2.58
3–4	130	40	17.35	17.66	0.30	1.75	16.46	-0.90	-5.16
5 or more	140	60	20.35	19.77	-0.57	-2.82	19.96	-0.39	-1.90
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = 0.06)		(Effect size = 0.09)		
0–4	230	70	30.59	31.78	1.19	3.88	34.50	3.91*	12.77
5–9	130	60	19.73	18.79	-0.94	-4.78	18.83	-0.89	-4.53
10–25	190	60	25.31	26.84	1.53	6.05	24.37	-0.94	-3.70
26 or more	160	80	24.38	22.60	-1.78*	-7.29	22.30	-2.08*	-8.52
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.03)		(Effect size = 0.01)		
1–2,353	170	70	25.53	24.15	-1.38	-5.40	26.04	0.51	1.99
2,354–5,339	180	60	24.79	25.00	0.21	0.85	24.45	-0.34	-1.37
5,340–11,644	180	60	24.89	25.56	0.67	2.70	24.67	-0.22	-0.89
11,645 or more	180	60	24.79	25.28	0.49	1.99	24.84	0.05	0.22
Total male undergraduate enrollment <sup>5</sup>					(Effect size = 0.03)		(Effect size = 0.03)		
1–933	170	70	25.53	24.58	-0.95	-3.74	26.47	0.94	3.68
934–2,240	170	70	24.79	24.29	-0.49	-2.00	23.72	-1.07	-4.30
2,241–4,994	180	60	24.89	25.56	0.67	2.70	24.85	-0.04	-0.18
4,995 or more	180	60	24.79	25.56	0.78	3.13	24.96	0.17	0.70

See notes at end of table.

**Table K-3. Undergraduate institution-level nonresponse bias analysis for select variables for public 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.05)			(Effect size = 0.01)	
1–1,361	170	70	25.53	23.59	-1.94	-7.61	25.59	0.06	0.22
1,362–3,087	180	60	24.79	25.56	0.78	3.13	25.14	0.35	1.42
3,088–6,534	180	60	24.89	25.85	0.96	3.84	24.96	0.07	0.29
6,535 or more	180	60	24.79	25.00	0.21	0.85	24.31	-0.48	-1.93
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–46	180	70	25.51	25.28	-0.23	-0.90	25.94	0.43	1.68
47–56	190	60	26.44	27.40	0.96	3.63	25.85	-0.60	-2.25
57–65	170	50	23.24	24.44	1.20	5.15	22.80	-0.44	-1.90
66 or more	160	70	24.60	22.60	-2.00*	-8.14	24.92	0.31	1.28
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–16	180	60	25.74	25.71	-0.03	-0.12	24.81	-0.93	-3.62
17–32	200	50	25.82	27.97	2.14*	8.31	26.79	0.97	3.76
33–57	170	60	23.65	23.45	-0.21	-0.87	23.71	0.05	0.23
58 or more	160	80	24.58	22.60	-1.98*	-8.07	24.19	-0.39	-1.58
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–4	160	90	26.46	22.18	-4.29*	-16.19	25.84	-0.62	-2.35
5–14	190	50	25.31	27.12	1.81*	7.17	25.86	0.56	2.20
15–29	180	50	23.76	24.86	1.10	4.64	21.93	-1.82*	-7.66
30 or more	180	50	24.27	25.56	1.29	5.33	25.87	1.59	6.57
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-3. Undergraduate institution-level nonresponse bias analysis for select variables for public 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1	150	90	25.10	21.75	-3.35*	-13.34	25.98	0.89	3.53
2–14	190	60	25.94	26.13	0.19	0.72	24.92	-1.02	-3.94
15–32	180	50	23.96	25.99	2.03*	8.46	25.19	1.22	5.11
33 or more	180	60	24.79	25.85	1.06	4.27	23.41	-1.38	-5.56
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$1–\$5,471	170	70	24.79	24.44	-0.35	-1.43	23.54	-1.24	-5.02
\$5,472–\$7,096	180	70	25.43	24.72	-0.71	-2.79	24.37	-1.06	-4.16
\$7,097–\$9,012	180	60	24.69	25.71	1.02	4.14	26.42	1.73	7.03
\$9,013 or more	170	70	24.69	24.58	-0.11	-0.44	24.88	0.20	0.80
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–63	190	60	25.72	27.12	1.40	5.45	25.81	0.09	0.35
64–75	190	50	25.61	27.40	1.79*	6.97	25.09	-0.52	-2.03
76–85	150	80	23.77	20.62	-3.15*	-13.26	21.99	-1.78	-7.49
86 or more	170	70	24.69	24.58	-0.11	-0.44	26.60	1.92	7.77
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = 0.02)			(Effect size = 0.04)	
0–38	50	10	5.99	6.50	0.51	8.46	5.76	-0.23	-3.79
39–72	40	20	5.68	5.65	-0.03	-0.55	4.90	-0.78	-13.80
73–136	40	20	5.78	5.79	0.01	0.12	6.07	0.29	5.03
137 or more	40	20	5.78	5.65	-0.13	-2.32	6.21	0.43	7.40
Unknown	540	200	76.76	76.41	-0.35	-0.45	77.05	0.29	0.38

See notes at end of table.

**Table K-3. Undergraduate institution-level nonresponse bias analysis for select variables for public 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–61	180	70	25.84	24.72	-1.12	-4.35	26.64	0.80	3.11
62–126	170	60	24.07	24.44	0.37	1.53	23.72	-0.34	-1.42
127–256	170	70	24.48	24.15	-0.33	-1.33	23.86	-0.62	-2.53
257 or more	180	60	24.58	25.56	0.98	4.00	24.53	-0.06	-0.23
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$0–\$4,599	180	60	24.79	25.00	0.21	0.85	24.77	-0.02	-0.07
\$4,600–\$5,137	190	50	24.69	26.84	2.15*	8.71	26.56	1.87	7.58
\$5,138–\$5,724	160	80	24.79	22.88	-1.91*	-7.69	22.42	-2.36*	-9.54
\$5,725 or more	180	60	25.32	24.72	-0.61	-2.40	25.46	0.14	0.55
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-4. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	80	20	66.00	62.60	-3.40*	-5.15	64.50	-1.50	-2.28
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Baccalaureate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Midsized city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Large suburb	20	10	14.67	13.82	-0.85	-5.76	15.86	1.20	8.16
Midsized suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	30	10	26.00	27.64	1.64	6.32	23.63	-2.37	-9.12
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	30	20	31.33	24.39	-6.94*	-22.16	25.73	-5.60*	-17.87
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-4. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No or unavailable or unknown	120	30	99.33	99.19	-0.15	-0.15	99.32	-0.02	-0.02
Hispanic-Serving Institution					(Effect size = 0.04)			(Effect size = 0.05)	
Yes	30	10	22.67	21.14	-1.53	-6.74	20.50	-2.16	-9.55
No	100	20	77.33	78.86	1.53	1.98	79.50	2.16	2.80
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = 0.05)			(Effect size = 0.06)	
0–2	30	10	26.00	26.83	0.83	3.19	26.69	0.69	2.66
3–7	30	10	24.00	21.95	-2.05	-8.54	24.73	0.73	3.04
8–13	30	10	26.00	26.83	0.83	3.19	27.26	1.26	4.85
14 or more	30	10	24.00	24.39	0.39	1.63	21.32	-2.68	-11.18
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–1	‡	‡	‡	‡	‡	‡	‡	‡	‡
2	‡	‡	‡	‡	‡	‡	‡	‡	‡
3–5	30	10	28.00	27.64	-0.36	-1.28	25.54	-2.46	-8.79
6 or more	20	10	21.33	17.07	-4.26*	-19.97	17.94	-3.40	-15.93
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–5	40	10	30.67	33.33	2.67	8.70	37.49	6.82*	22.24
6–10	20	10	22.00	18.70	-3.30	-15.00	18.23	-3.77	-17.16
11–23	‡	‡	‡	‡	‡	‡	‡	‡	‡
24 or more	30	10	24.00	22.76	-1.24	-5.15	22.08	-1.92	-7.98
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.08)	
1–3,290	30	10	25.33	26.02	0.68	2.70	27.80	2.47	9.74
3,291–6,497	30	10	24.67	25.20	0.54	2.18	26.18	1.51	6.14
6,498–15,347	30	10	25.33	23.58	-1.76	-6.93	23.26	-2.08	-8.20
15,348 or more	30	10	24.67	25.20	0.54	2.18	22.76	-1.90	-7.72

See notes at end of table.



**Table K-4. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total male undergraduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–1,404	‡	‡	‡	‡	‡	‡	‡	‡	‡
1,405–2,855	30	10	24.67	24.39	-0.28	-1.12	24.57	-0.09	-0.37
2,856–6,354	30	10	25.33	22.76	-2.57	-10.14	21.91	-3.43	-13.52
6,355 or more	30	10	24.67	25.20	0.54	2.18	23.65	-1.02	-4.13
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.09)	
1–1,802	30	10	25.33	26.02	0.68	2.70	27.48	2.14	8.46
1,803–3,847	30	10	24.67	25.20	0.54	2.18	27.02	2.35	9.54
3,848–9,052	30	10	25.33	23.58	-1.76	-6.93	22.89	-2.44	-9.64
9,053 or more	30	10	24.67	25.20	0.54	2.18	22.61	-2.05	-8.32
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = 0.03)			(Effect size = 0.08)	
1–40	30	10	25.33	24.39	-0.94	-3.72	27.01	1.68	6.63
41–50	30	10	24.67	26.02	1.35	5.47	26.99	2.32	9.41
51–61	30	10	28.00	27.64	-0.36	-1.28	26.34	-1.66	-5.92
62 or more	30	10	22.00	21.95	-0.05	-0.22	19.65	-2.35	-10.66
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.10)	
1–24	30	10	26.67	26.83	0.16	0.61	30.47	3.80	14.26
25–36	30	10	24.67	26.02	1.35	5.47	25.17	0.50	2.03
37–48	30	10	25.33	24.39	-0.94	-3.72	23.39	-1.95	-7.68
49 or more	30	10	23.33	22.76	-0.57	-2.44	20.98	-2.36	-10.10
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.08)	
1–9	30	10	26.00	24.39	-1.61	-6.19	25.06	-0.94	-3.63
10–19	30	10	24.00	24.39	0.39	1.63	22.22	-1.78	-7.40
20–34	30	10	25.33	25.20	-0.13	-0.51	24.82	-0.51	-2.02
35 or more	30	10	24.67	26.02	1.35	5.47	27.90	3.23	13.09

See notes at end of table.

**Table K-4. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–6	30	10	26.00	25.20	-0.80	-3.06	25.78	-0.22	-0.85
7–18	30	10	26.00	20.33	-5.67*	-21.83	18.82	-7.18*	-27.61
19–45	‡	‡	‡	‡	‡	‡	‡	‡	‡
46 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$1–\$5,818	30	10	25.33	24.39	-0.94	-3.72	21.78	-3.56*	-14.04
\$5,819–\$7,265	30	10	25.33	26.02	0.68	2.70	26.72	1.39	5.48
\$7,266–\$9,546	30	10	24.67	22.76	-1.90	-7.71	24.93	0.26	1.06
\$9,547 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.07)	
1–59	30	10	27.33	26.83	-0.50	-1.84	28.34	1.00	3.67
60–69	30	10	23.33	21.95	-1.38	-5.92	22.13	-1.20	-5.16
70–83	30	10	25.33	26.83	1.50	5.91	27.62	2.29	9.04
84 or more	30	10	24.00	24.39	0.39	1.63	21.91	-2.09	-8.70
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–19	‡	‡	‡	‡	‡	‡	‡	‡	‡
20–65	10	10	9.33	7.32	-2.02	-21.60	7.59	-1.75	-18.72
66–248	‡	‡	‡	‡	‡	‡	‡	‡	‡
249 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	80	20	61.33	61.79	0.46	0.74	64.58	3.24	5.29

See notes at end of table.

**Table K-4. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = 0.08)		(Effect size = 0.11)		
0–74	30	10	25.33	26.02	0.68	2.70	29.66	4.33	17.09
75–140	30	10	24.67	21.14	-3.53	-14.30	22.37	-2.29	-9.30
141–337	30	10	25.33	26.83	1.50	5.91	25.40	0.07	0.26
338 or more	30	10	24.67	26.02	1.35	5.47	22.57	-2.10	-8.52
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = 0.06)		(Effect size = 0.11)		
\$0–\$4,763	30	10	25.33	26.83	1.50	5.91	30.26	4.92*	19.43
\$4,764–\$5,525	30	10	24.67	25.20	0.54	2.18	23.41	-1.25	-5.08
\$5,526–\$6,300	30	10	25.33	22.76	-2.57	-10.14	22.95	-2.39	-9.43
\$6,301 or more	30	10	24.67	25.20	0.54	2.18	23.38	-1.28	-5.20

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-5. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	100	30	53.98	55.88	1.90	3.52	50.68	-3.30	-6.12
Baccalaureate	70	20	38.50	38.82	0.33	0.85	42.42	3.92	10.19
Special focus and other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unavailable or unknown	#	10	3.10	1.18	-1.92	-62.02	2.91	-0.19	-6.07
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Midsize city	10	10	9.29	7.06	-2.23	-24.03	5.99	-3.30*	-35.53
Small city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Large suburb	30	10	15.93	15.88	-0.05	-0.29	15.09	-0.84	-5.29
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	30	10	15.04	15.29	0.25	1.66	14.17	-0.88	-5.84
Urban area remote from town	20	10	15.04	14.12	-0.93	-6.16	13.18	-1.86	-12.39
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	20	10	11.50	11.18	-0.33	-2.85	10.11	-1.40	-12.13
Mideast	40	10	20.80	22.35	1.56	7.48	22.05	1.26	6.04
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	20	10	10.62	10.00	-0.62	-5.83	10.02	-0.60	-5.61
Southeast	40	10	22.12	24.12	1.99	9.01	22.74	0.62	2.79
Southwest	10	10	8.85	8.24	-0.61	-6.94	7.44	-1.41	-15.91
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	10	10	8.85	7.65	-1.20	-13.59	9.37	0.52	5.89
Outlying Areas	#	10	3.98	1.76	-2.22*	-55.69	2.51	-1.48	-37.06

See notes at end of table.

**Table K-5. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No or unavailable or unknown	160	50	93.81	93.53	-0.28	-0.29	93.88	0.07	0.08
Hispanic-Serving Institution					(Effect size = 0.10)			(Effect size = 0.11)	
Yes	20	20	15.93	12.35	-3.58*	-22.45	11.75	-4.18*	-26.25
No	150	40	84.07	87.65	3.58*	4.25	88.25	4.18*	4.97
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = 0.10)			(Effect size = 0.08)	
0–3	50	20	29.20	26.47	-2.73	-9.36	30.09	0.89	3.05
4–6	40	20	24.34	22.35	-1.98	-8.15	21.91	-2.43	-9.99
7–12	40	10	22.12	22.94	0.82	3.69	20.83	-1.29	-5.85
13 or more	50	10	24.34	28.24	3.90*	16.02	27.17	2.84	11.65
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = 0.09)			(Effect size = 0.10)	
0–1	70	30	41.59	38.82	-2.77	-6.66	40.33	-1.26	-3.04
2	40	10	19.03	20.59	1.56	8.21	22.35	3.33	17.48
3–4	30	10	16.81	19.41	2.60*	15.45	17.64	0.82	4.89
5 or more	40	20	22.57	21.18	-1.39	-6.16	19.68	-2.88	-12.78
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = 0.09)			(Effect size = 0.13)	
0–4	60	10	29.65	32.94	3.30*	11.12	34.38	4.74*	15.97
5–7	40	10	23.01	22.94	-0.07	-0.29	23.65	0.64	2.78
8–16	40	10	23.89	24.12	0.22	0.94	23.27	-0.62	-2.60
17 or more	30	20	23.45	20.00	-3.45	-14.72	18.70	-4.75*	-20.27
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.02)	
1–2,175	40	20	25.22	24.12	-1.10	-4.38	26.07	0.85	3.38
2,176–4,012	40	20	24.78	24.12	-0.66	-2.67	24.57	-0.21	-0.85
4,013–6,439	40	10	25.22	25.88	0.66	2.62	25.23	0.01	0.03
6,440 or more	40	10	24.78	25.88	1.10	4.45	24.13	-0.65	-2.61

See notes at end of table.

**Table K-5. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total male undergraduate enrollment <sup>5</sup>					(Effect size = 0.09)			(Effect size = 0.11)	
1–894	40	10	25.22	25.29	0.07	0.29	27.08	1.86	7.37
895–1,669	40	20	24.78	21.18	-3.60*	-14.54	20.66	-4.11*	-16.60
1,670–2,684	50	10	25.22	27.06	1.84	7.29	28.13	2.91	11.55
2,685 or more	50	10	24.78	26.47	1.69	6.83	24.12	-0.66	-2.66
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.04)	
1–1,281	40	20	25.22	24.71	-0.52	-2.04	26.34	1.11	4.42
1,282–2,404	40	20	24.78	23.53	-1.25	-5.04	23.87	-0.91	-3.68
2,405–3,859	50	10	25.22	26.47	1.25	4.95	26.29	1.07	4.23
3,860 or more	40	10	24.78	25.29	0.52	2.08	23.51	-1.27	-5.12
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–36	40	10	25.22	25.88	0.66	2.62	25.53	0.31	1.24
37–45	40	20	23.45	22.35	-1.10	-4.68	23.00	-0.45	-1.91
46–57	50	10	26.11	27.06	0.95	3.65	27.30	1.20	4.58
58 or more	40	10	22.12	21.76	-0.36	-1.62	20.60	-1.52	-6.88
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–27	40	10	24.34	24.12	-0.22	-0.90	25.21	0.87	3.57
28–41	40	10	25.22	25.88	0.66	2.62	28.16	2.94	11.66
42–58	40	20	24.34	22.94	-1.40	-5.73	21.22	-3.12	-12.81
59 or more	40	10	23.01	24.12	1.11	4.82	21.85	-1.16	-5.03
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-5. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
1–37	40	10	25.22	25.88	0.66	2.62	24.09	-1.14	-4.50
38–56	40	10	24.78	24.71	-0.07	-0.29	24.69	-0.08	-0.34
57–75	40	20	23.89	21.76	-2.13	-8.91	23.51	-0.39	-1.61
76 or more	40	10	23.01	24.71	1.70	7.38	24.15	1.14	4.97
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
1–44	40	10	24.78	24.71	-0.07	-0.29	24.56	-0.22	-0.88
45–57	30	20	23.89	20.00	-3.89*	-16.30	22.22	-1.68	-7.02
58–70	50	10	24.34	27.06	2.72	11.19	26.47	2.13	8.77
71 or more	40	10	23.89	25.29	1.40	5.86	23.19	-0.70	-2.93
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
\$1–\$9,985	40	10	24.34	24.71	0.37	1.52	22.78	-1.55	-6.38
\$9,986–\$12,994	40	10	24.34	24.71	0.37	1.52	26.64	2.31	9.48
\$12,995–\$16,072	40	20	24.34	23.53	-0.81	-3.32	20.97	-3.36	-13.82
\$16,073 or more	40	10	23.89	24.12	0.22	0.94	26.04	2.14	8.98
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
1–70	40	20	24.78	24.12	-0.66	-2.67	24.48	-0.30	-1.22
71–82	40	10	23.89	25.29	1.40	5.86	24.16	0.27	1.11
83–90	40	20	26.99	25.29	-1.70	-6.29	26.03	-0.97	-3.58
91 or more	40	10	21.24	22.35	1.11	5.25	21.78	0.54	2.53
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-5. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = 0.11)		(Effect size = 0.11)		
0–133	40	10	20.35	21.76	1.41	6.93	22.62	2.26	11.11
134–242	30	10	20.35	19.41	-0.94	-4.63	19.14	-1.21	-5.96
243–475	40	10	20.35	24.12	3.76*	18.49	23.37	3.02	14.84
476 or more	30	20	19.91	17.65	-2.26	-11.37	16.90	-3.01	-15.12
Unknown	30	10	19.03	17.06	-1.97	-10.34	17.97	-1.06	-5.56
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
0–55	40	10	24.34	24.71	0.37	1.52	26.10	1.76	7.24
56–120	40	20	24.34	22.35	-1.98	-8.15	22.93	-1.41	-5.79
121–244	40	10	24.34	24.71	0.37	1.52	23.57	-0.77	-3.16
245 or more	40	10	23.89	25.29	1.40	5.86	23.85	-0.05	-0.19
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
\$0–\$5,971	40	20	24.34	22.35	-1.98	-8.15	24.21	-0.13	-0.52
\$5,972–\$7,276	40	10	24.34	25.88	1.55	6.35	27.24	2.90	11.93
\$7,277–\$8,481	40	10	24.34	25.88	1.55	6.35	24.06	-0.28	-1.14
\$8,482 or more	40	20	23.89	22.94	-0.95	-3.99	20.93	-2.96	-12.40
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table K-6. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, nonresponse adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic			(Effect size = ‡)				(Effect size = ‡)		
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	170	20	53.74	54.43	0.69	1.29	51.69	-2.05	-3.82
Master's	120	20	39.61	38.92	-0.69	-1.74	40.28	0.67	1.69
Baccalaureate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization			(Effect size = ‡)				(Effect size = ‡)		
Large city	80	10	24.93	25.00	0.07	0.28	26.28	1.35	5.41
Midsize city	50	10	17.17	16.46	-0.72	-4.19	16.06	-1.12	-6.49
Small city	60	10	19.11	19.62	0.51	2.65	19.91	0.79	4.15
Large suburb	40	10	11.63	11.39	-0.24	-2.08	11.03	-0.60	-5.19
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	20	10	7.76	7.28	-0.48	-6.16	6.87	-0.89	-11.45
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>			(Effect size = ‡)				(Effect size = ‡)		
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	50	10	15.24	15.51	0.27	1.78	16.11	0.88	5.76
Great Lakes	50	10	14.13	14.24	0.11	0.80	13.04	-1.08	-7.67
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	90	20	28.25	26.90	-1.36	-4.80	27.17	-1.08	-3.84
Southwest	40	10	13.57	13.61	0.03	0.25	13.78	0.20	1.50
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-6. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, nonresponse adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = 0.06)			(Effect size = #)	
Yes	20	10	6.65	5.06	-1.58*	-23.84	6.66	0.01	0.15
No or unavailable or unknown	300	40	93.35	94.94	1.58*	1.70	93.34	-0.01	-0.01
Hispanic-Serving Institution					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	260	40	83.10	81.96	-1.14	-1.37	81.53	-1.57	-1.89
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–4	100	10	31.58	31.65	0.07	0.21	31.46	-0.12	-0.39
5–7	60	10	18.84	19.30	0.47	2.48	19.82	0.99	5.23
8–16	80	10	24.65	25.63	0.98	3.97	24.77	0.12	0.48
17 or more	70	20	24.10	22.47	-1.63	-6.77	23.11	-0.99	-4.11
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	130	20	41.83	40.51	-1.32	-3.16	41.35	-0.47	-1.13
3	30	10	10.25	10.13	-0.12	-1.20	9.96	-0.29	-2.82
4–7	80	10	24.10	24.68	0.58	2.42	24.71	0.61	2.53
8 or more	80	10	22.99	23.73	0.74	3.23	23.13	0.14	0.62
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–4	80	20	28.25	25.95	-2.31*	-8.16	27.62	-0.64	-2.26
5–7	80	10	22.71	24.37	1.65*	7.27	23.36	0.65	2.85
8–18	70	10	24.10	23.10	-1.00	-4.14	22.05	-2.05*	-8.52
19 or more	80	10	24.10	25.63	1.53*	6.36	26.13	2.03*	8.44
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-6. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, nonresponse adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.04)	
1–7,874	80	20	25.21	23.73	-1.47	-5.85	26.35	1.14	4.53
7,875–13,130	80	10	24.93	25.95	1.02	4.09	25.54	0.61	2.43
13,131–22,849	80	10	24.93	24.37	-0.56	-2.26	23.11	-1.82	-7.29
22,850 or more	80	10	24.93	25.95	1.02	4.09	25.00	0.07	0.29
Total male undergraduate enrollment <sup>5</sup>					(Effect size = 0.02)			(Effect size = 0.04)	
1–3,301	80	10	25.21	24.37	-0.84	-3.33	26.74	1.53	6.07
3,302–6,034	80	10	24.93	25.00	0.07	0.28	24.90	-0.03	-0.14
6,035–10,629	80	10	24.93	25.00	0.07	0.28	23.49	-1.44	-5.79
10,630 or more	80	10	24.93	25.63	0.70	2.82	24.88	-0.05	-0.20
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.03)	
1–4,358	70	20	25.21	23.42	-1.79	-7.10	26.00	0.80	3.16
4,359–7,326	80	10	24.93	25.95	1.02	4.09	25.43	0.49	1.98
7,327–12,110	80	10	24.93	25.32	0.39	1.55	24.49	-0.44	-1.78
12,111 or more	80	10	24.93	25.32	0.39	1.55	24.08	-0.85	-3.39
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–28	80	10	23.55	23.73	0.19	0.80	22.90	-0.64	-2.74
29–39	80	10	25.21	25.95	0.74	2.94	25.54	0.33	1.32
40–51	70	10	21.88	21.52	-0.36	-1.67	20.88	-1.01	-4.60
52 or more	70	10	23.55	23.10	-0.44	-1.89	24.62	1.08	4.58
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–21	70	10	24.38	23.42	-0.96	-3.93	23.44	-0.94	-3.84
22–36	70	10	23.27	23.10	-0.17	-0.72	23.73	0.46	1.96
37–58	80	10	23.27	25.00	1.73*	7.44	24.61	1.34	5.75
59 or more	70	10	23.27	22.78	-0.48	-2.08	22.17	-1.10	-4.73
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-6. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, nonresponse adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–42	70	10	23.55	23.42	-0.13	-0.54	22.48	-1.07	-4.54
43–58	80	10	25.21	25.00	-0.21	-0.82	26.93	1.73	6.84
59–70	70	10	22.16	21.84	-0.33	-1.47	21.11	-1.05	-4.73
71 or more	80	10	23.27	24.05	0.78	3.36	23.42	0.15	0.63
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–41	80	10	24.65	25.63	0.98	3.97	25.96	1.31	5.32
42–53	70	10	23.27	23.10	-0.17	-0.72	22.29	-0.98	-4.22
54–65	80	10	23.82	24.05	0.23	0.96	23.22	-0.60	-2.52
66 or more	70	10	22.44	21.52	-0.92	-4.09	22.47	0.03	0.13
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$1–\$12,004	80	10	23.55	23.73	0.19	0.80	24.93	1.38	5.87
\$12,005–\$14,265	70	10	23.55	22.47	-1.08	-4.58	22.23	-1.32	-5.61
\$14,266–\$16,823	80	10	23.55	24.05	0.50	2.14	22.79	-0.76	-3.22
\$16,824 or more	80	10	23.55	24.05	0.50	2.14	24.00	0.45	1.93
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–68	70	10	23.55	23.10	-0.44	-1.89	23.02	-0.52	-2.21
69–80	80	10	24.65	25.63	0.98	3.97	24.72	0.07	0.28
81–89	80	10	25.48	25.95	0.46	1.82	25.53	0.05	0.19
90 or more	60	10	20.50	19.62	-0.88	-4.28	20.66	0.16	0.78
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-6. Undergraduate institution-level nonresponse bias analysis for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, nonresponse adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–483	70	10	23.27	22.47	-0.80	-3.44	24.28	1.01	4.33
484–908	70	10	22.99	23.42	0.43	1.85	23.35	0.36	1.57
909–1,583	70	10	22.99	22.47	-0.52	-2.28	21.20	-1.79	-7.78
1,584 or more	80	10	22.99	23.73	0.74	3.23	22.86	-0.13	-0.58
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–204	80	10	23.55	23.73	0.19	0.80	24.80	1.25	5.31
205–339	70	10	23.55	23.10	-0.44	-1.89	23.40	-0.15	-0.62
340–557	70	10	23.55	23.42	-0.13	-0.54	21.98	-1.57	-6.67
558 or more	80	10	23.55	24.05	0.50	2.14	23.77	0.22	0.94
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$0–\$6,778	80	10	23.82	24.68	0.86	3.61	24.47	0.65	2.72
\$6,779–\$8,176	70	10	23.27	23.42	0.15	0.64	24.72	1.46	6.25
\$8,177–\$9,547	70	20	23.55	21.84	-1.71	-7.26	20.36	-3.18*	-13.52
\$9,548 or more	80	10	23.55	24.37	0.82	3.49	24.38	0.84	3.55
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-7. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit less-than-4-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	10	10	20.46	15.88	-4.59	-22.42	14.67	-5.80	-28.32
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Baccalaureate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unavailable or unknown	10	10	77.47	82.27	4.81	6.20	83.23	5.76	7.44
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Midsize city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Large suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-7. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No or unavailable or unknown	20	10	99.59	99.55	-0.05	-0.05	99.62	0.02	0.02
Hispanic-Serving Institution					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	10	10	23.31	14.61	-8.69	-37.31	19.97	-3.33	-14.30
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
1–10	‡	‡	‡	‡	‡	‡	‡	‡	‡
11–17	‡	‡	‡	‡	‡	‡	‡	‡	‡
18 or more	#	10	8.40	1.71	-6.69	-79.68	1.69	-6.71	-79.90
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
1	‡	‡	‡	‡	‡	‡	‡	‡	‡
2–3	‡	‡	‡	‡	‡	‡	‡	‡	‡
4 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–1	10	10	8.30	5.72	-2.58	-31.12	11.29	2.99	36.08
2–7	‡	‡	‡	‡	‡	‡	‡	‡	‡
8–17	‡	‡	‡	‡	‡	‡	‡	‡	‡
18 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-7. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total undergraduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–59	‡	‡	‡	‡	‡	‡	‡	‡	‡
60–216	‡	‡	‡	‡	‡	‡	‡	‡	‡
217–826	#	10	36.22	36.38	0.16	0.44	26.87	-9.35*	-25.81
827 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total male undergraduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–14	‡	‡	‡	‡	‡	‡	‡	‡	‡
15–42	‡	‡	‡	‡	‡	‡	‡	‡	‡
43–257	#	10	7.02	0.91	-6.11	-87.09	0.66	-6.35	-90.54
258 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total female undergraduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–33	‡	‡	‡	‡	‡	‡	‡	‡	‡
34–129	‡	‡	‡	‡	‡	‡	‡	‡	‡
130–398	‡	‡	‡	‡	‡	‡	‡	‡	‡
399 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–52	‡	‡	‡	‡	‡	‡	‡	‡	‡
53–66	‡	‡	‡	‡	‡	‡	‡	‡	‡
67–85	‡	‡	‡	‡	‡	‡	‡	‡	‡
86 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
1–6	‡	‡	‡	‡	‡	‡	‡	‡	‡
7–17	‡	‡	‡	‡	‡	‡	‡	‡	‡
18 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-7. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
1–31	‡	‡	‡	‡	‡	‡	‡	‡	‡
32–73	‡	‡	‡	‡	‡	‡	‡	‡	‡
74 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–31	‡	‡	‡	‡	‡	‡	‡	‡	‡
32–69	‡	‡	‡	‡	‡	‡	‡	‡	‡
70–79	‡	‡	‡	‡	‡	‡	‡	‡	‡
80 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$1–\$9,790	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$9,791–\$16,299	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$16,300–\$22,420	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$22,421 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–65	‡	‡	‡	‡	‡	‡	‡	‡	‡
66–84	‡	‡	‡	‡	‡	‡	‡	‡	‡
85–93	‡	‡	‡	‡	‡	‡	‡	‡	‡
94 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-7. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
1–36	‡	‡	‡	‡	‡	‡	‡	‡	‡
37–71	‡	‡	‡	‡	‡	‡	‡	‡	‡
72 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	20	10	92.62	93.15	0.52	0.56	95.58	2.96	3.19
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–9	‡	‡	‡	‡	‡	‡	‡	‡	‡
10–24	‡	‡	‡	‡	‡	‡	‡	‡	‡
25–82	‡	‡	‡	‡	‡	‡	‡	‡	‡
83 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$0–\$4,816	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$4,817–\$5,920	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$5,921–\$9,373	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$9,374 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-8. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	90	20	22.53	22.29	-0.24	-1.06	18.98	-3.56	-15.78
Baccalaureate	150	50	56.08	55.94	-0.14	-0.25	55.22	-0.86	-1.53
Special focus and other	40	10	17.51	16.64	-0.87	-4.98	20.87	3.36	19.18
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	40	10	13.61	15.65	2.04	14.98	15.12	1.51	11.09
Midsized city	30	10	8.88	9.72	0.84	9.43	10.37	1.49	16.76
Small city	40	10	12.50	16.08	3.57*	28.58	15.95	3.45	27.58
Large suburb	40	20	26.51	21.74	-4.76	-17.97	20.27	-6.24	-23.55
Midsized suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	40	10	9.10	10.32	1.22	13.42	9.90	0.80	8.83
Urban area remote from town	20	10	3.54	3.26	-0.28	-7.93	3.52	-0.02	-0.69
Rural area on fringe of town	10	10	11.59	6.20	-5.39	-46.51	9.38	-2.22	-19.14
Rural area distant from town	10	10	2.55	2.78	0.23	8.97	2.52	-0.03	-1.17
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	30	10	9.50	11.34	1.84	19.34	9.11	-0.40	-4.20
Mideast	20	10	16.46	17.53	1.08	6.54	17.41	0.96	5.81
Great Lakes	40	10	17.95	14.07	-3.87	-21.58	14.09	-3.85	-21.47
Plains	60	20	11.16	12.63	1.46	13.12	11.47	0.31	2.76
Southeast	80	20	26.30	24.23	-2.07	-7.88	22.95	-3.35	-12.74
Southwest	10	10	4.47	5.50	1.02	22.89	4.63	0.16	3.47
Rocky Mountains	10	10	2.88	2.83	-0.04	-1.52	9.03	6.15	213.84
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-8. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = 0.01)			(Effect size = 0.05)	
Yes	10	10	3.30	3.53	0.24	7.15	4.25	0.96	29.00
No or unavailable or unknown	270	90	96.70	96.47	-0.24	-0.24	95.75	-0.96	-0.99
Hispanic-Serving Institution					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	260	90	92.46	89.76	-2.70*	-2.92	91.03	-1.43	-1.55
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–3	70	30	20.28	19.64	-0.64	-3.18	24.76	4.48	22.08
4–7	70	20	25.42	28.07	2.65	10.43	26.90	1.48	5.82
8–16	60	20	26.23	27.27	1.04	3.95	25.30	-0.93	-3.55
17 or more	70	20	27.83	24.68	-3.15	-11.31	22.74	-5.09	-18.29
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–1	130	50	41.94	38.97	-2.97	-7.08	41.11	-0.83	-1.97
2	50	20	17.63	14.90	-2.73	-15.48	13.10	-4.54	-25.73
3–4	60	20	16.71	19.72	3.01	18.00	17.98	1.27	7.61
5 or more	50	10	23.48	26.06	2.59	11.01	27.51	4.03	17.17
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–3	60	30	23.57	20.01	-3.55	-15.08	20.66	-2.90	-12.33
4–6	80	20	18.99	22.62	3.63	19.11	23.71	4.72	24.84
7–10	70	20	23.73	24.11	0.37	1.58	21.93	-1.80	-7.59
11 or more	70	20	33.47	32.91	-0.56	-1.66	33.40	-0.07	-0.21
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-8. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.23)			(Effect size = 0.13)	
1–825	60	40	34.61	23.84	-10.77*	-31.11	28.64	-5.97	-17.25
826–1,466	70	20	30.54	34.08	3.54	11.58	32.55	2.01	6.57
1,467–2,139	80	20	18.44	22.47	4.03*	21.88	20.15	1.71	9.29
2,140 or more	70	20	16.41	19.60	3.19	19.47	18.66	2.25	13.70
Total male undergraduate enrollment <sup>5</sup>					(Effect size = 0.21)			(Effect size = 0.11)	
1–304	60	30	38.46	28.67	-9.78*	-25.44	33.53	-4.92	-12.80
305–617	70	20	23.95	26.11	2.16	9.01	24.92	0.96	4.01
618–948	80	20	20.29	25.06	4.77*	23.49	21.95	1.66	8.17
949 or more	70	20	17.30	20.16	2.86	16.54	19.60	2.30	13.31
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.15)			(Effect size = 0.08)	
1–415	60	30	29.39	23.56	-5.83	-19.82	29.16	-0.23	-0.77
416–809	70	20	28.58	27.78	-0.80	-2.79	25.71	-2.86	-10.03
810–1,222	70	20	26.20	29.18	2.98	11.38	27.01	0.81	3.07
1,223 or more	80	10	15.83	19.47	3.64*	23.01	18.12	2.29	14.44
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = 0.21)			(Effect size = 0.21)	
1–29	70	20	22.41	28.44	6.03*	26.91	27.84	5.43*	24.21
30–43	70	20	20.78	20.64	-0.13	-0.64	20.11	-0.67	-3.22
44–59	70	20	21.02	22.08	1.05	5.01	23.55	2.52	12.01
60 or more	70	20	28.72	25.75	-2.97	-10.33	25.63	-3.10	-10.78
None or unknown	10	10	7.06	3.08	-3.98	-56.37	2.88	-4.19	-59.25
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = 0.16)			(Effect size = 0.25)	
1–10	60	30	16.04	17.74	1.69	10.56	23.64	7.60*	47.34
11–27	70	20	26.29	26.03	-0.26	-0.99	24.01	-2.28	-8.66
28–48	70	20	23.88	24.26	0.38	1.58	24.17	0.29	1.20
49 or more	70	10	26.72	28.89	2.17	8.12	25.30	-1.42	-5.32
None or unknown	10	10	7.06	3.08	-3.98	-56.37	2.88	-4.19	-59.25

See notes at end of table.

**Table K-8. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = 0.20)			(Effect size = 0.17)	
1–79	60	30	32.95	29.24	-3.71	-11.27	33.20	0.25	0.77
80–97	80	20	22.04	23.27	1.23	5.57	21.91	-0.13	-0.59
98 or more	130	40	37.94	44.41	6.47	17.04	42.01	4.06	10.71
None or unknown	10	10	7.06	3.08	-3.98	-56.37	2.88	-4.19	-59.25
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = 0.18)			(Effect size = 0.17)	
1–57	70	20	23.71	24.04	0.33	1.41	25.32	1.62	6.83
58–70	60	20	22.20	22.07	-0.12	-0.56	20.70	-1.50	-6.77
71–81	70	20	18.18	22.24	4.06*	22.34	19.98	1.80	9.90
82 or more	70	20	28.85	28.56	-0.29	-1.00	31.12	2.27	7.86
None or unknown	10	10	7.06	3.08	-3.98	-56.37	2.88	-4.19	-59.25
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = 0.21)			(Effect size = 0.23)	
\$1–\$17,558	70	20	30.88	27.06	-3.82	-12.36	25.49	-5.39	-17.45
\$17,559–\$21,808	70	20	16.03	18.13	2.10	13.10	17.67	1.64	10.24
\$21,809–\$25,980	60	30	25.38	26.11	0.72	2.84	27.44	2.06	8.10
\$25,981 or more	70	20	20.20	25.33	5.13*	25.41	26.05	5.85*	28.97
None or unknown	10	10	7.51	3.37	-4.14	-55.08	3.35	-4.16	-55.40
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = 0.17)			(Effect size = 0.19)	
1–95	70	20	29.88	28.44	-1.44	-4.82	32.61	2.73	9.13
96–99	90	30	28.32	28.90	0.57	2.02	25.54	-2.79	-9.85
100	120	40	34.73	39.58	4.85	13.96	38.98	4.25	12.23
None or unknown	10	10	7.06	3.08	-3.98	-56.37	2.88	-4.19	-59.25

See notes at end of table.

**Table K-8. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = 0.20)		(Effect size = 0.12)		
0–128	60	20	20.33	19.64	-0.69	-3.40	20.95	0.62	3.02
129–238	60	20	21.93	24.47	2.54	11.59	22.96	1.03	4.72
239–373	60	20	15.58	18.86	3.28*	21.05	17.08	1.50	9.64
374 or more	60	10	13.83	16.66	2.84	20.54	15.76	1.93	13.98
Unknown	40	20	28.34	20.37	-7.97	-28.12	23.25	-5.08	-17.94
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = 0.23)		(Effect size = 0.17)		
0–27	70	30	29.50	27.75	-1.76	-5.96	31.84	2.34	7.92
28–46	60	30	24.53	20.94	-3.60	-14.66	22.66	-1.87	-7.63
47–75	70	10	20.60	26.73	6.13*	29.75	22.11	1.51	7.33
76 or more	70	20	17.85	21.21	3.36	18.85	20.04	2.19	12.25
Unknown	10	10	7.51	3.37	-4.14	-55.08	3.35	-4.16	-55.40
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = 0.21)		(Effect size = 0.19)		
\$0–\$11,086	60	30	30.06	26.98	-3.08	-10.26	33.50	3.44	11.43
\$11,087–\$18,758	70	20	18.04	17.12	-0.92	-5.11	14.97	-3.08	-17.05
\$18,759–\$24,538	70	20	23.55	26.06	2.51	10.64	24.31	0.76	3.22
\$24,539 or more	70	20	20.83	26.47	5.64*	27.05	23.87	3.04	14.61
Unknown	10	10	7.51	3.37	-4.14	-55.08	3.35	-4.16	-55.40

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-9. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment			
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>	
Carnegie Classification 2015: Basic					(Effect size = ‡)				(Effect size = ‡)	
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	80	20	18.23	23.31	5.08	27.87	18.73	0.50	2.75	
Master's	130	40	42.66	47.49	4.83	11.33	38.97	-3.69	-8.64	
Baccalaureate	20	10	6.38	8.37	1.99	31.26	7.30	0.92	14.47	
Special focus and other	30	10	32.55	20.54	-12.01	-36.90	34.76	2.20	6.76	
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization					(Effect size = ‡)				(Effect size = ‡)	
Large city	90	20	48.16	37.91	-10.24	-21.27	39.42	-8.73	-18.13	
Midsize city	40	10	8.79	11.91	3.12*	35.50	9.23	0.44	5.02	
Small city	30	10	9.90	10.35	0.45	4.58	9.79	-0.11	-1.14	
Large suburb	50	20	21.15	23.46	2.31	10.91	20.26	-0.90	-4.24	
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)				(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	40	20	30.71	21.14	-9.57	-31.16	17.25	-13.47	-43.85	
Great Lakes	40	10	14.79	19.23	4.45	30.07	22.32	7.54	50.98	
Plains	40	10	7.97	11.16	3.19*	39.99	9.93	1.96	24.52	
Southeast	50	20	14.87	17.65	2.78	18.70	14.78	-0.09	-0.59	
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	30	10	17.86	12.92	-4.94	-27.64	21.19	3.33	18.65	
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-9. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No or unavailable or unknown	250	70	98.84	98.43	-0.41	-0.41	98.59	-0.25	-0.25
Hispanic-Serving Institution					(Effect size = 0.05)			(Effect size = 0.07)	
Yes	20	10	6.65	7.83	1.18	17.70	8.40	1.75	26.33
No	230	60	93.35	92.17	-1.18	-1.26	91.60	-1.75	-1.88
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–4	80	20	34.98	34.01	-0.96	-2.75	45.28	10.31	29.47
5–7	70	20	22.29	29.04	6.75	30.28	23.88	1.59	7.12
8–12	50	20	18.48	17.41	-1.07	-5.77	14.71	-3.76	-20.36
13 or more	50	20	23.79	19.08	-4.72	-19.83	15.78	-8.01	-33.66
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	100	30	42.10	40.19	-1.91	-4.53	33.27	-8.83	-20.97
3	30	20	12.11	12.26	0.15	1.23	10.31	-1.80	-14.83
4–8	60	20	20.11	24.35	4.24	21.07	28.15	8.04	39.99
9 or more	60	10	25.21	22.74	-2.47	-9.81	27.92	2.71	10.74
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–5	80	20	36.58	37.06	0.48	1.33	38.86	2.29	6.25
6–9	70	20	22.64	24.75	2.12	9.35	19.57	-3.07	-13.57
10–13	50	10	14.22	17.33	3.11	21.87	21.64	7.41	52.12
14 or more	50	20	26.09	20.39	-5.71	-21.87	19.59	-6.50	-24.92
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-9. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.19)			(Effect size = 0.10)	
1–1,886	60	20	44.33	35.89	-8.43	-19.03	46.80	2.47	5.57
1,887–3,428	60	20	23.53	23.68	0.14	0.61	19.20	-4.33	-18.39
3,429–5,994	60	20	16.41	20.78	4.37	26.65	17.42	1.01	6.18
5,995 or more	60	20	15.73	19.65	3.92	24.90	16.58	0.84	5.37
Total male undergraduate enrollment <sup>5</sup>					(Effect size = 0.22)			(Effect size = 0.09)	
1–687	60	20	47.15	37.29	-9.86	-20.92	47.87	0.71	1.51
688–1,339	60	20	20.59	21.41	0.82	4.00	17.48	-3.11	-15.10
1,340–2,720	60	20	16.35	20.07	3.72	22.77	16.66	0.31	1.91
2,721 or more	70	10	15.91	21.23	5.32*	33.43	17.99	2.08	13.10
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.20)			(Effect size = 0.06)	
1–1,134	60	20	45.13	36.23	-8.90	-19.72	45.86	0.73	1.62
1,135–1,970	60	20	22.92	23.68	0.77	3.35	20.37	-2.54	-11.09
1,971–3,208	70	20	16.58	21.01	4.43	26.71	17.66	1.08	6.53
3,209 or more	60	20	15.37	19.08	3.71	24.10	16.10	0.73	4.72
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–20	70	10	28.39	25.36	-3.03	-10.66	26.88	-1.51	-5.30
21–33	60	20	29.75	21.77	-7.99	-26.84	17.86	-11.89	-39.97
34–47	60	20	20.31	24.22	3.91	19.24	21.30	0.99	4.85
48 or more	60	20	17.85	23.06	5.21	29.17	19.48	1.63	9.13
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–8	70	10	37.59	26.99	-10.60	-28.19	28.96	-8.63	-22.95
9–23	60	20	19.02	22.51	3.49	18.34	17.58	-1.44	-7.56
24–42	60	20	23.14	26.96	3.82	16.53	22.84	-0.30	-1.30
43 or more	50	20	16.56	17.95	1.39	8.40	16.14	-0.42	-2.52
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-9. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–74	60	20	33.77	20.06	-13.71	-40.61	19.42	-14.35	-42.50
75–97	80	20	25.13	32.03	6.90	27.47	26.23	1.10	4.39
98–99	50	10	15.47	17.59	2.12	13.71	13.84	-1.63	-10.54
100	50	20	21.94	24.73	2.80	12.75	26.03	4.10	18.67
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–50	60	20	37.80	24.28	-13.52	-35.78	26.81	-10.99	-29.07
51–64	60	10	18.09	24.55	6.46*	35.74	19.41	1.32	7.32
65–74	60	20	19.29	21.42	2.12	11.01	18.59	-0.70	-3.63
75 or more	60	20	21.12	24.16	3.04	14.40	20.71	-0.42	-1.97
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$1–\$19,539	60	20	25.23	21.54	-3.69	-14.63	18.00	-7.23	-28.67
\$19,540–\$24,110	60	20	18.98	24.65	5.67	29.88	21.56	2.57	13.56
\$24,111–\$29,729	60	20	20.90	25.09	4.19	20.05	20.89	-0.01	-0.05
\$29,730 or more	60	20	31.01	23.12	-7.89	-25.44	25.07	-5.94	-19.15
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–87	70	10	35.89	23.71	-12.19	-33.96	22.81	-13.08	-36.45
88–98	80	20	23.50	28.15	4.65	19.81	22.18	-1.31	-5.59
99 or more	100	30	36.91	42.55	5.64	15.28	40.53	3.62	9.79
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-9. Undergraduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = 0.22)		(Effect size = 0.14)		
0–224	60	20	31.92	28.70	-3.22	-10.08	29.31	-2.61	-8.18
225–453	60	20	19.58	21.21	1.64	8.36	17.03	-2.54	-12.99
454–790	60	20	18.21	20.78	2.58	14.16	17.02	-1.19	-6.52
791 or more	60	10	14.15	19.31	5.16*	36.46	16.10	1.95	13.78
Unknown	20	10	16.15	9.99	-6.16	-38.14	20.54	4.39	27.19
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
0–48	60	20	42.84	31.07	-11.77	-27.47	33.91	-8.93	-20.85
49–74	60	20	20.19	20.83	0.64	3.15	16.53	-3.66	-18.12
75–132	60	10	16.74	22.30	5.56*	33.25	18.24	1.50	8.96
133 or more	60	20	15.73	19.92	4.19	26.66	16.48	0.75	4.78
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = ‡)		(Effect size = ‡)		
\$0–\$15,552	60	20	27.99	24.36	-3.63	-12.96	22.62	-5.37	-19.17
\$15,553–\$21,345	60	20	28.76	22.09	-6.67	-23.18	19.02	-9.74	-33.87
\$21,346–\$26,822	60	20	18.87	22.37	3.50	18.53	17.20	-1.67	-8.87
\$26,823 or more	60	10	20.51	25.59	5.08	24.76	26.68	6.18	30.11
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-10. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit less-than-2-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	20	20	24.22	23.42	-0.79	-3.27	24.60	0.38	1.58
Midsized city	20	20	16.35	7.35	-9.00	-55.04	9.17	-7.17	-43.88
Small city	20	10	9.16	12.40	3.24	35.42	13.51	4.36	47.60
Large suburb	20	30	43.87	49.82	5.95	13.55	44.30	0.42	0.97
Midsized suburb	10	10	1.31	1.53	0.21	16.29	2.24	0.93	70.58
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	20	20	5.49	3.66	-1.82	-33.24	5.02	-0.47	-8.53
Mideast	20	10	20.23	28.01	7.78	38.46	27.53	7.30	36.09
Great Lakes	#	10	11.82	8.70	-3.13	-26.45	9.68	-2.15	-18.17
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	30	20	27.60	31.89	4.29	15.55	30.08	2.49	9.01
Southwest	10	10	14.60	2.97	-11.64	-79.67	3.49	-11.11	-76.10
Rocky Mountains	#	10	2.81	0.25	-2.56*	-91.02	0.93	-1.88	-66.82
Far West	10	10	12.69	18.74	6.05	47.66	16.40	3.71	29.27
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Hispanic-Serving Institution					(Effect size = 0.16)			(Effect size = 0.21)	
Yes	20	20	31.42	23.82	-7.60	-24.19	21.48	-9.94	-31.64
No	70	70	68.58	76.18	7.60	11.09	78.52	9.94	14.49

See notes at end of table.

**Table K-10. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = 0.24)		(Effect size = 0.25)		
0–3	20	30	18.27	10.61	-7.66	-41.94	9.95	-8.32	-45.54
4–14	30	20	39.44	48.97	9.53	24.16	45.91	6.46	16.39
15–39	30	20	12.45	10.41	-2.04	-16.39	16.63	4.18	33.58
40 or more	20	20	29.84	30.01	0.17	0.58	27.51	-2.33	-7.79
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = 0.36)		(Effect size = 0.30)		
0	50	20	43.18	50.44	7.26	16.81	50.66	7.48	17.32
1	20	30	16.95	5.94	-11.00*	-64.94	8.41	-8.54	-50.38
2	10	20	8.70	4.13	-4.57	-52.58	4.16	-4.54	-52.17
3 or more	20	20	31.17	39.49	8.32	26.69	36.76	5.60	17.96
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = 0.19)		(Effect size = 0.21)		
0–2	30	20	20.58	27.90	7.32	35.55	27.52	6.94	33.73
3–8	20	20	20.69	19.52	-1.17	-5.66	23.67	2.98	14.38
9–23	30	20	18.63	14.89	-3.75	-20.11	14.66	-3.97	-21.31
24 or more	20	20	40.09	37.69	-2.40	-5.98	34.15	-5.95	-14.83
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.17)		(Effect size = 0.10)		
1–131	30	20	43.21	51.25	8.05	18.62	45.92	2.72	6.29
132–229	20	30	18.41	15.25	-3.16	-17.15	17.87	-0.54	-2.92
230–402	20	20	26.65	21.90	-4.74	-17.81	22.64	-4.01	-15.05
403 or more	20	20	11.74	11.59	-0.14	-1.22	13.57	1.83	15.60
Total male undergraduate enrollment <sup>5</sup>					(Effect size = 0.20)		(Effect size = 0.14)		
1–7	30	20	47.02	54.41	7.39	15.72	48.37	1.36	2.88
8–23	20	20	25.26	26.51	1.24	4.91	29.00	3.74	14.80
24–72	30	20	12.57	8.77	-3.80	-30.21	11.98	-0.58	-4.65
73 or more	20	30	15.15	10.31	-4.84	-31.92	10.64	-4.51	-29.78

See notes at end of table.

**Table K-10. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.23)			(Effect size = 0.20)	
1–91	30	20	23.94	30.03	6.10	25.48	30.18	6.24	26.07
92–178	20	30	37.95	38.22	0.27	0.70	34.82	-3.13	-8.26
179–300	20	30	14.93	7.68	-7.25	-48.56	9.57	-5.35	-35.86
301 or more	30	20	23.19	24.07	0.88	3.81	25.43	2.25	9.68
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = 0.34)			(Effect size = 0.31)	
1–56	20	20	35.33	47.78	12.45*	35.24	44.93	9.60*	27.17
57–69	20	30	14.65	8.44	-6.21	-42.41	11.81	-2.84	-19.41
70–81	30	10	16.13	19.34	3.21	19.93	21.07	4.94	30.66
82 or more	20	20	31.32	24.22	-7.10	-22.67	21.98	-9.34	-29.82
None or unknown	#	10	2.58	0.23	-2.35	-91.10	0.22	-2.36	-91.61
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = 0.18)			(Effect size = 0.16)	
0	70	50	82.54	87.67	5.12	6.21	84.96	2.42	2.93
1–2	10	10	4.15	2.28	-1.86	-44.96	2.93	-1.21	-29.24
3 or more	20	20	10.73	9.82	-0.91	-8.49	11.89	1.16	10.77
None or unknown	#	10	2.58	0.23	-2.35	-91.10	0.22	-2.36	-91.61
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = 0.21)			(Effect size = 0.30)	
0	50	40	59.17	56.73	-2.44	-4.13	52.48	-6.69	-11.31
1–13	20	10	23.20	29.97	6.78	29.21	34.71	11.51*	49.64
14 or more	20	30	15.05	13.07	-1.98	-13.17	12.59	-2.46	-16.32
None or unknown	#	10	2.58	0.23	-2.35	-91.10	0.22	-2.36	-91.61

See notes at end of table.

**Table K-10. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = 0.31)			(Effect size = 0.30)	
1–54	30	20	22.28	30.25	7.97	35.79	32.10	9.82*	44.08
55–75	20	20	29.36	31.26	1.90	6.47	27.24	-2.12	-7.23
76–86	20	20	23.81	13.67	-10.14	-42.58	16.31	-7.50	-31.49
87 or more	20	20	21.97	24.59	2.61	11.90	24.14	2.16	9.84
None or unknown	#	10	2.58	0.23	-2.35	-91.10	0.22	-2.36	-91.61
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = 0.48)			(Effect size = 0.38)	
\$1–\$12,198	30	20	45.13	67.36	22.23*	49.26	59.80	14.68*	32.52
\$12,199–\$15,916	20	20	25.04	14.94	-10.10	-40.34	16.59	-8.45	-33.76
\$15,917–\$20,009	20	20	13.31	12.13	-1.18	-8.85	16.77	3.46	25.99
\$20,010 or more	20	20	13.80	5.34	-8.46*	-61.27	6.62	-7.18*	-51.99
None or unknown	#	10	2.72	0.23	-2.49	-91.57	0.22	-2.51	-92.05
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = 0.26)			(Effect size = 0.24)	
1–61	30	20	38.71	49.37	10.66	27.54	47.64	8.93	23.06
62–71	20	20	13.24	10.22	-3.02	-22.80	12.44	-0.80	-6.04
72–84	30	10	14.71	14.34	-0.37	-2.54	15.46	0.74	5.05
85 or more	20	20	30.75	25.84	-4.92	-15.99	24.25	-6.51	-21.16
None or unknown	#	10	2.58	0.23	-2.35	-91.10	0.22	-2.36	-91.61
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = 0.17)			(Effect size = 0.10)	
0–12	20	20	16.11	14.12	-1.99	-12.34	16.17	0.05	0.33
13–27	30	20	25.28	30.82	5.54	21.89	28.58	3.30	13.05
28–61	20	20	34.89	32.51	-2.39	-6.85	31.42	-3.47	-9.95
62 or more	20	20	11.83	8.45	-3.39	-28.61	10.95	-0.89	-7.48
Unknown	#	10	11.88	14.10	2.23	18.74	12.88	1.00	8.45

See notes at end of table.



**Table K-10. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = 0.19)			(Effect size = 0.22)	
\$0–\$4,015	20	30	52.77	56.42	3.65	6.91	49.11	-3.66	-6.94
\$4,016–\$4,511	30	10	11.60	10.15	-1.45	-12.49	10.71	-0.89	-7.68
\$4,512–\$5,087	20	20	13.09	10.53	-2.56	-19.58	13.38	0.30	2.26
\$5,088 or more	30	20	19.82	22.68	2.86	14.41	26.58	6.76	34.12
Unknown	#	10	2.72	0.23	-2.49	-91.57	0.22	-2.51	-92.05

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-11. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 2-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	40	50	52.64	40.97	-11.66	-22.16	31.07	-21.57*	-40.98
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Baccalaureate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unavailable or unknown	50	50	46.09	59.03	12.93	28.06	68.93	22.84*	49.55
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	30	30	25.43	22.05	-3.38	-13.29	13.80	-11.63*	-45.72
Midsize city	20	20	12.42	14.99	2.57	20.68	16.77	4.35	35.04
Small city	10	20	14.71	7.52	-7.19	-48.87	17.10	2.39	16.23
Large suburb	10	20	37.07	45.96	8.89	23.97	28.48	-8.59	-23.17
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	10	10	2.99	2.36	-0.63	-20.94	5.57	2.58	86.32
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	10	10	13.80	17.20	3.39	24.59	9.17	-4.63	-33.54
Great Lakes	#	10	14.69	19.85	5.16	35.16	10.53	-4.15	-28.28
Plains	10	10	6.26	8.82	2.57	40.99	6.10	-0.16	-2.54
Southeast	20	40	25.60	20.18	-5.42	-21.17	13.42	-12.18*	-47.57
Southwest	10	10	10.54	7.71	-2.83	-26.81	5.56	-4.98	-47.29
Rocky Mountains	20	20	7.47	9.57	2.10	28.10	46.49	39.01*	522.00
Far West	10	10	15.05	5.00	-10.05	-66.80	2.89	-12.16	-80.81
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-11. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 2-year institutions:  
2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Hispanic-Serving Institution					(Effect size = 0.07)			(Effect size = 0.07)	
Yes	30	20	28.91	32.27	3.35	11.60	25.57	-3.34	-11.55
No	60	90	71.09	67.73	-3.35	-4.72	74.43	3.34	4.70
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = 0.32)			(Effect size = 0.76)	
0–3	30	30	19.16	15.55	-3.61	-18.84	47.61	28.45*	148.44
4–10	20	20	21.44	34.23	12.79	59.67	23.48	2.04	9.51
11–44	20	30	35.80	33.41	-2.38	-6.65	18.07	-17.72*	-49.51
45 or more	20	30	23.60	16.80	-6.80	-28.82	10.84	-12.76*	-54.08
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = 0.27)			(Effect size = 0.50)	
0	30	30	27.27	37.83	10.56	38.72	48.60	21.34*	78.25
1	20	20	17.69	19.56	1.87	10.59	14.68	-3.01	-17.00
2–3	20	30	31.09	23.42	-7.67	-24.66	16.10	-14.99*	-48.20
4 or more	30	20	23.95	19.19	-4.77	-19.89	20.61	-3.34	-13.96
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = 0.31)			(Effect size = 0.27)	
0–2	20	40	13.87	5.40	-8.46*	-61.04	20.65	6.78	48.89
3–9	20	20	31.82	42.58	10.76	33.80	37.42	5.60	17.60
10–25	30	20	24.23	20.05	-4.18	-17.24	17.01	-7.21	-29.78
26 or more	30	20	30.09	31.97	1.89	6.27	24.92	-5.16	-17.17
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.24)			(Effect size = 0.53)	
1–145	20	30	26.12	36.57	10.45	40.02	49.18	23.06*	88.30
146–515	20	30	24.12	21.77	-2.34	-9.71	18.93	-5.19	-21.52
516–992	20	30	29.49	23.72	-5.77	-19.58	18.02	-11.47	-38.89
993 or more	30	20	20.27	17.93	-2.34	-11.53	13.87	-6.40	-31.59

See notes at end of table.

**Table K-11. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total male undergraduate enrollment <sup>5</sup>					(Effect size = 0.36)			(Effect size = 0.64)	
1–10	30	20	25.38	41.12	15.73*	61.97	53.18	27.79*	109.49
11–79	20	30	19.31	14.35	-4.96	-25.69	12.68	-6.63	-34.33
80–213	20	30	22.72	17.69	-5.03	-22.13	13.74	-8.98	-39.51
214 or more	20	20	32.59	26.85	-5.74	-17.62	20.40	-12.19	-37.40
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.25)			(Effect size = 0.51)	
1–93	20	30	20.09	17.86	-2.23	-11.11	40.01	19.92	99.18
94–288	20	20	27.65	38.66	11.01	39.82	24.52	-3.13	-11.30
289–596	20	30	36.06	29.11	-6.95	-19.28	24.17	-11.89	-32.97
597 or more	20	30	16.20	14.38	-1.83	-11.27	11.29	-4.91	-30.30
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = 0.44)			(Effect size = 0.50)	
1–52	30	10	30.16	40.39	10.24	33.95	38.89	8.74	28.97
53–69	20	20	18.58	19.25	0.67	3.58	15.87	-2.71	-14.59
70–81	20	20	20.70	20.52	-0.19	-0.90	19.88	-0.82	-3.98
82 or more	20	20	15.23	19.54	4.32	28.36	25.24	10.01	65.74
None or unknown	#	30	15.33	0.30	-15.04*	-98.07	0.12	-15.21*	-99.20
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = 0.44)			(Effect size = 0.60)	
0	50	50	45.23	58.35	13.12	29.02	71.33	26.10*	57.71
1–4	20	10	11.72	15.22	3.50	29.92	13.44	1.72	14.72
5 or more	20	20	27.73	26.13	-1.59	-5.74	15.11	-12.62	-45.50
None or unknown	#	30	15.33	0.30	-15.04*	-98.07	0.12	-15.21*	-99.20
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = 0.52)			(Effect size = 0.70)	
0	50	40	34.88	51.95	17.07*	48.95	61.77	26.89*	77.10
1–16	30	20	13.52	18.90	5.38	39.82	20.28	6.77	50.07
17 or more	20	30	36.27	28.86	-7.42	-20.45	17.82	-18.45*	-50.86
None or unknown	#	30	15.33	0.30	-15.04*	-98.07	0.12	-15.21*	-99.20

See notes at end of table.

**Table K-11. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 2-year institutions:  
2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = 0.53)			(Effect size = 0.55)	
1–63	30	20	23.32	21.87	-1.46	-6.25	25.91	2.59	11.08
64–75	30	20	28.72	44.23	15.52*	54.02	38.56	9.84	34.27
76–85	10	20	16.58	10.77	-5.81	-35.03	8.62	-7.95	-47.97
86 or more	20	20	16.05	22.84	6.79	42.28	26.78	10.73	66.88
None or unknown	#	30	15.33	0.30	-15.04*	-98.07	0.12	-15.21*	-99.20
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = 0.47)			(Effect size = 0.66)	
\$1–\$13,000	30	10	25.14	39.56	14.42*	57.38	50.16	25.02*	99.53
\$13,001–\$17,580	10	30	18.58	12.23	-6.35	-34.19	9.48	-9.10	-49.00
\$17,581–\$21,282	30	20	24.88	29.77	4.89	19.64	20.85	-4.03	-16.20
\$21,283 or more	20	20	13.24	14.18	0.94	7.10	16.53	3.29	24.88
None or unknown	#	30	18.16	4.27	-13.90*	-76.51	2.98	-15.18*	-83.57
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = 0.62)			(Effect size = 0.53)	
1–57	30	10	25.38	43.79	18.41*	72.57	37.47	12.09	47.66
58–73	20	20	22.09	14.05	-8.05	-36.43	14.14	-7.96	-36.02
74–85	20	20	18.36	13.06	-5.30	-28.87	20.56	2.20	11.98
86 or more	20	20	18.83	28.81	9.97	52.95	27.71	8.87	47.12
None or unknown	#	30	15.33	0.30	-15.04*	-98.07	0.12	-15.21*	-99.20
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–8	‡	‡	‡	‡	‡	‡	‡	‡	‡
9–25	‡	‡	‡	‡	‡	‡	‡	‡	‡
26–87	‡	‡	‡	‡	‡	‡	‡	‡	‡
88 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	90	100	94.99	91.88	-3.11	-3.28	96.81	1.82	1.91

See notes at end of table.

**Table K-11. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = 0.43)			(Effect size = 0.59)	
0–15	20	20	31.19	36.06	4.87	15.62	32.34	1.15	3.70
16–33	20	20	16.15	17.03	0.89	5.51	34.37	18.22	112.85
34–90	20	20	21.04	32.52	11.48	54.58	20.48	-0.56	-2.65
91 or more	20	20	13.47	10.12	-3.35	-24.85	9.83	-3.64	-27.02
Unknown	#	30	18.16	4.27	-13.90*	-76.51	2.98	-15.18*	-83.57
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = 0.37)			(Effect size = 0.65)	
\$0–\$4,092	20	20	15.86	20.77	4.91	30.94	20.14	4.28	26.97
\$4,093–\$4,862	30	20	8.77	11.76	2.99	34.08	23.32	14.54	165.79
\$4,863–\$5,519	20	30	29.53	32.33	2.80	9.49	19.45	-10.08	-34.13
\$5,520 or more	20	20	27.68	30.87	3.20	11.55	34.11	6.43	23.25
Unknown	#	30	18.16	4.27	-13.90*	-76.51	2.98	-15.18*	-83.57

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-12. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 4-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	10	10	9.92	6.97	-2.94	-29.68	7.86	-2.06	-20.73
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	20	20	12.53	12.18	-0.35	-2.79	8.18	-4.35	-34.74
Baccalaureate	20	20	19.74	16.39	-3.35	-16.96	15.12	-4.62	-23.39
Special focus and other	40	20	24.19	28.60	4.41	18.21	28.81	4.61	19.06
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	40	30	35.85	33.42	-2.43	-6.78	36.10	0.25	0.71
Midsize city	20	10	23.41	14.86	-8.55	-36.51	16.03	-7.38	-31.51
Small city	10	10	10.38	15.53	5.15	49.68	15.24	4.87	46.92
Large suburb	30	20	25.00	29.48	4.48	17.92	27.51	2.51	10.03
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	10	10	7.73	3.06	-4.68	-60.48	3.50	-4.23	-54.74
Great Lakes	10	10	11.23	10.96	-0.27	-2.41	13.87	2.64	23.47
Plains	20	10	10.28	14.78	4.50	43.79	17.49	7.21	70.11
Southeast	30	20	22.70	30.69	7.99	35.19	26.65	3.95	17.41
Southwest	10	10	13.49	16.32	2.83	20.95	22.69	9.20	68.19
Rocky Mountains	10	10	6.29	4.88	-1.41	-22.40	3.23	-3.06	-48.65
Far West	20	10	19.09	6.52	-12.56	-65.82	4.32	-14.76	-77.35
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-12. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Hispanic-Serving Institution					(Effect size = 0.23)			(Effect size = 0.38)	
Yes	20	10	29.72	19.09	-10.63	-35.76	12.48	-17.24*	-58.02
No	90	60	70.28	80.91	10.63	15.12	87.52	17.24*	24.53
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–8	30	20	34.90	28.19	-6.71	-19.24	23.40	-11.50	-32.96
9–18	20	20	15.22	17.38	2.16	14.18	15.93	0.71	4.67
19–35	30	10	25.36	27.32	1.96	7.74	27.68	2.32	9.14
36 or more	20	20	23.90	26.08	2.18	9.11	32.34	8.44	35.33
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–1	40	30	41.13	57.60	16.47*	40.04	59.39	18.26*	44.39
2	20	10	13.25	14.54	1.29	9.70	10.65	-2.61	-19.67
3–4	20	10	13.78	11.58	-2.20	-15.96	13.11	-0.67	-4.86
5 or more	20	20	31.22	15.25	-15.97	-51.16	16.21	-15.02	-48.09
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–5	30	20	23.13	24.94	1.81	7.82	26.87	3.74	16.19
6–9	30	10	13.94	18.65	4.71	33.76	22.82	8.88	63.69
10–16	20	20	23.03	26.33	3.30	14.32	29.80	6.77	29.39
17 or more	30	10	39.28	29.05	-10.23	-26.05	19.86	-19.43*	-49.45
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total undergraduate enrollment <sup>5</sup>					(Effect size = 0.35)			(Effect size = 0.60)	
1–390	30	10	33.78	50.29	16.52*	48.90	62.02	28.25*	83.63
391–936	30	10	32.36	25.77	-6.59	-20.36	18.88	-13.47	-41.64
937–3,535	20	20	21.17	15.00	-6.18	-29.17	12.23	-8.94	-42.22
3,536 or more	20	20	12.69	8.94	-3.75	-29.56	6.86	-5.84	-45.97

See notes at end of table.



**Table K-12. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total male undergraduate enrollment <sup>5</sup>					(Effect size = 0.33)			(Effect size = 0.57)	
1–95	30	10	30.78	45.90	15.12*	49.13	56.92	26.14*	84.92
96–263	20	20	35.59	28.08	-7.50	-21.08	22.22	-13.36	-37.55
264–877	20	20	23.66	16.67	-6.99	-29.54	14.01	-9.66	-40.81
878 or more	20	20	9.97	9.34	-0.63	-6.31	6.85	-3.12	-31.28
Total female undergraduate enrollment <sup>5</sup>					(Effect size = 0.35)			(Effect size = 0.52)	
1–251	30	10	29.58	45.18	15.60*	52.72	53.18	23.60*	79.77
252–582	30	10	36.42	31.22	-5.20	-14.27	27.69	-8.73	-23.96
583–2,571	20	20	21.20	15.23	-5.96	-28.13	12.69	-8.50	-40.12
2,572 or more	20	20	12.80	8.36	-4.44	-34.66	6.43	-6.36	-49.73
Percentage of undergraduate students receiving federal grant aid <sup>5</sup>					(Effect size = 0.42)			(Effect size = 0.45)	
1–50	20	20	26.63	13.24	-13.39	-50.27	20.35	-6.27	-23.56
51–67	10	10	9.66	9.66	#	-0.02	8.24	-1.41	-14.65
68–82	20	10	13.16	9.19	-3.98	-30.21	6.54	-6.62	-50.31
83 or more	20	10	17.28	16.86	-0.42	-2.44	10.96	-6.32	-36.55
None or unknown	40	10	33.27	51.06	17.79*	53.45	53.90	20.63*	61.99
Percentage of undergraduate students receiving state/local grant aid <sup>5</sup>					(Effect size = 0.43)			(Effect size = 0.54)	
0	40	30	32.69	32.09	-0.60	-1.84	35.04	2.35	7.18
1–10	10	10	20.73	8.48	-12.25	-59.08	4.80	-15.94	-76.86
11 or more	20	10	13.30	8.37	-4.93	-37.10	6.26	-7.04	-52.92
None or unknown	40	10	33.27	51.06	17.79*	53.45	53.90	20.63*	61.99
Percentage of undergraduate students receiving institution grant aid <sup>5</sup>					(Effect size = 0.43)			(Effect size = 0.45)	
0	20	20	30.56	15.50	-15.07	-49.30	21.30	-9.26	-30.31
1–18	10	20	13.87	9.77	-4.10	-29.54	6.64	-7.22	-52.08
19–61	20	10	10.65	9.59	-1.06	-9.91	8.66	-1.99	-18.66
62 or more	20	10	11.65	14.09	2.44	20.91	9.50	-2.16	-18.50
None or unknown	40	10	33.27	51.06	17.79*	53.45	53.90	20.63*	61.99

See notes at end of table.

**Table K-12. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of undergraduate students receiving student loan aid <sup>5</sup>					(Effect size = 0.41)			(Effect size = 0.48)	
1–53	10	20	17.69	17.81	0.12	0.67	14.83	-2.86	-16.19
54–75	20	10	20.61	12.56	-8.06	-39.09	10.83	-9.78	-47.45
76–89	10	20	12.22	5.67	-6.55	-53.59	4.31	-7.90*	-64.70
90 or more	20	10	16.21	12.91	-3.30	-20.35	16.13	-0.08	-0.49
None or unknown	40	10	33.27	51.06	17.79*	53.45	53.90	20.63*	61.99
Average net price among students receiving grant or scholarship aid <sup>5</sup>					(Effect size = 0.45)			(Effect size = 0.60)	
\$1–\$15,952	20	10	15.99	16.63	0.64	4.03	11.11	-4.87	-30.48
\$15,953–\$19,911	20	10	19.65	9.59	-10.06	-51.18	6.78	-12.87	-65.50
\$19,912–\$24,446	20	10	11.50	8.75	-2.75	-23.92	10.02	-1.48	-12.87
\$24,447 or more	10	20	13.96	6.12	-7.84*	-56.15	4.91	-9.05*	-64.85
None or unknown	40	10	38.90	58.90	20.00*	51.43	67.18	28.28*	72.70
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					(Effect size = 0.44)			(Effect size = 0.48)	
1–60	20	20	26.98	15.57	-11.42	-42.31	23.51	-3.47	-12.87
61–86	20	20	18.37	8.84	-9.53	-51.89	5.35	-13.02*	-70.87
87–95	20	10	10.75	12.03	1.28	11.89	9.06	-1.69	-15.71
96 or more	20	10	10.62	12.51	1.89	17.76	8.18	-2.44	-23.00
None or unknown	40	10	33.27	51.06	17.79*	53.45	53.90	20.63*	61.99
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–11	‡	‡	‡	‡	‡	‡	‡	‡	‡
12–97	‡	‡	‡	‡	‡	‡	‡	‡	‡
98–139	‡	‡	‡	‡	‡	‡	‡	‡	‡
140 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	100	60	96.59	97.74	1.15	1.19	98.86	2.27	2.35

See notes at end of table.

**Table K-12. Undergraduate institution-level nonresponse bias analysis for select variables for private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					(Effect size = 0.47)		(Effect size = 0.55)		
0–4	20	20	14.79	12.45	-2.34	-15.79	19.90	5.11	34.57
5–19	10	10	18.77	5.22	-13.55	-72.19	3.29	-15.48	-82.46
20–91	20	10	15.46	19.11	3.65	23.59	12.07	-3.39	-21.94
92 or more	20	10	15.29	9.70	-5.59	-36.57	8.53	-6.76	-44.21
Unknown	40	10	35.69	53.52	17.83*	49.96	56.20	20.52*	57.49
Average amount of grant and scholarship aid received <sup>5</sup>					(Effect size = 0.47)		(Effect size = 0.64)		
\$0–\$4,597	20	10	11.37	11.19	-0.18	-1.56	13.02	1.65	14.53
\$4,598–\$5,571	10	20	16.60	10.14	-6.46	-38.92	6.04	-10.56*	-63.62
\$5,572–\$7,199	20	10	12.02	12.60	0.59	4.88	8.45	-3.56	-29.67
\$7,200 or more	20	10	21.12	7.17	-13.95	-66.06	5.31	-15.81	-74.84
Unknown	40	10	38.90	58.90	20.00*	51.43	67.18	28.28*	72.70

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-13. Undergraduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Control and level of institution					
Public less-than-2-year	3.15	4.79	3.20	-0.05	1.59
Public 2-year	14.23	15.75	14.84	-0.61	0.91
Public 4-year, non-doctorate-granting, primarily subbaccalaureate	2.39	2.44	2.41	-0.02	0.03
Public 4-year, non-doctorate-granting, primarily baccalaureate	3.24	3.68	3.27	-0.03	0.41
Public 4-year, doctorate-granting	5.53	5.87	5.59	-0.06	0.28
Private nonprofit less-than-4-year	7.41	4.00	7.11	0.30	-3.11
Private nonprofit 4-year, non-doctorate-granting	12.69	13.36	12.62	0.07	0.74
Private nonprofit 4-year, doctorate-granting	8.41	9.29	8.23	0.18	1.06
Private for-profit less-than-2-year	19.42	22.66	19.28	0.14	3.38
Private for-profit 2-year	15.12	10.86	15.17	-0.05	-4.31
Private for-profit 4-year	8.42	7.29	8.29	0.13	-1.00
State, control, and level of institution					
Alabama					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.63	0.60	0.64	-0.01	-0.04
Alaska					
Public 2-year	†	†	†	†	†
Public 4-year	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡
Arizona					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.43	1.11	0.44	-0.01*	0.67*
Arkansas					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.69	0.72	0.71	-0.02*	0.01
California					
Public 2-year	1.53	1.69	1.55	-0.02	0.14
Public 4-year	0.67	0.76	0.67	#	0.09
Other	6.48	7.39	5.56	0.92*	1.83
Colorado					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	1.71	1.05	1.69	0.02	-0.64
Connecticut					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.94	0.69	0.94	#	-0.25
Delaware					
Public 2-year	†	†	†	†	†
Public 4-year	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-13. Undergraduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
District of Columbia					
Public 2-year	†	†	†	†	†
Public 4-year	‡	‡	‡	‡	‡
Other	0.31	0.26	0.31	#	-0.05
Florida					
Public 2-year	0.54	0.49	0.55	-0.01	-0.06
Public 4-year	0.60	0.67	0.61	-0.01	0.06
Other	2.21	3.48	2.33	-0.12*	1.15
Georgia					
Public 2-year	0.30	0.37	0.36	-0.06*	0.01
Public 4-year	‡	‡	‡	‡	‡
Other	3.13	3.11	3.41	-0.28	-0.30
Hawaii					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.12	0.20	0.12	#	0.08*
Idaho					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	8.02	0.44	8.10	-0.08	-7.66*
Illinois					
Public 2-year	0.74	0.78	0.75	-0.01	0.03
Public 4-year	‡	‡	‡	‡	‡
Other	4.10	2.62	4.10	#	-1.48
Indiana					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡
Iowa					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡
Kansas					
Public 2-year	0.47	0.41	0.47	#	-0.06
Public 4-year	‡	‡	‡	‡	‡
Other	1.05	0.77	1.07	-0.02	-0.30
Kentucky					
Public 2-year	0.28	0.26	0.28	#	-0.02
Public 4-year	‡	‡	‡	‡	‡
Other	0.66	0.82	0.67	-0.01*	0.15
Louisiana					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	1.20	1.05	1.18	0.02*	-0.13
Maine					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.37	0.34	0.37	#	-0.03

See notes at end of table.

**Table K-13. Undergraduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Maryland					
Public 2-year	0.24	0.26	0.24	#	0.02
Public 4-year	‡	‡	‡	‡	‡
Other	1.03	1.01	1.02	0.01	-0.01
Massachusetts					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	1.74	2.10	1.72	0.02	0.38
Michigan					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	2.05	1.80	2.08	-0.03	-0.28
Minnesota					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	1.08	0.67	1.12	-0.04*	-0.45
Mississippi					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.51	0.50	0.51	#	-0.01
Missouri					
Public 2-year	0.24	0.28	0.24	#	0.04
Public 4-year	‡	‡	‡	‡	‡
Other	1.00	1.36	1.03	-0.03*	0.33
Montana					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.60	0.23	0.59	0.01	-0.36
Nebraska					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.52	0.50	0.52	#	-0.02
Nevada					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.39	0.50	0.40	-0.01*	0.10
New Hampshire					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.27	0.39	0.28	-0.01	0.11*
New Jersey					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	1.61	2.28	1.66	-0.05*	0.62
New Mexico					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-13. Undergraduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
New York					
Public 2-year	0.56	0.62	0.56	#	0.06
Public 4-year	‡	‡	‡	‡	‡
Other	5.21	8.07	5.15	0.06	2.92
North Carolina					
Public 2-year	0.82	0.96	0.83	-0.01	0.13
Public 4-year	‡	‡	‡	‡	‡
Other	1.57	1.46	1.58	-0.01	-0.12
North Dakota					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.52	0.24	0.52	#	-0.28
Ohio					
Public 2-year	0.43	0.54	0.44	-0.01	0.10*
Public 4-year	0.66	0.55	0.67	-0.01	-0.12
Other	3.80	4.28	3.86	-0.06	0.42
Oklahoma					
Public 2-year	0.28	0.36	0.29	-0.01	0.07
Public 4-year	‡	‡	‡	‡	‡
Other	1.17	1.12	1.19	-0.02	-0.07
Oregon					
Public 2-year	0.21	0.28	0.21	#	0.07
Public 4-year	‡	‡	‡	‡	‡
Other	0.70	0.75	0.72	-0.02*	0.03
Pennsylvania					
Public 2-year	0.21	0.28	0.21	#	0.07
Public 4-year	0.76	0.72	0.76	#	-0.04
Other	2.78	3.19	2.74	0.04	0.45
Puerto Rico					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.18	0.23	0.17	0.01*	0.06
Other	‡	‡	‡	‡	‡
Rhode Island					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡
South Carolina					
Public 2-year	0.40	0.33	0.41	-0.01	-0.08
Public 4-year	‡	‡	‡	‡	‡
Other	1.58	1.55	1.59	-0.01	-0.04
South Dakota					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.79	0.24	0.79	#	-0.55
Tennessee					
Public 2-year	0.61	0.62	0.62	-0.01*	#
Public 4-year	0.12	0.16	0.12	#	0.04
Other	0.64	0.94	0.66	-0.02*	0.28

See notes at end of table.

**Table K-13. Undergraduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Texas					
Public 2-year	0.82	0.98	0.83	-0.01*	0.15
Public 4-year	‡	‡	‡	‡	‡
Other	3.39	4.66	2.96	0.43	1.70
Utah					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.55	0.90	0.55	#	0.35
Vermont					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.25	0.26	0.25	#	0.01
Virginia					
Public 2-year	0.34	0.39	0.34	#	0.05
Public 4-year	‡	‡	‡	‡	‡
Other	1.71	1.31	1.75	-0.04*	-0.44
Washington					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.47	0.57	0.47	#	0.10
Other	‡	‡	‡	‡	‡
West Virginia					
Public 2-year	0.13	0.28	0.13	#	0.15
Public 4-year	‡	‡	‡	‡	‡
Other	1.01	0.75	1.02	-0.01	-0.27
Wisconsin					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.85	0.86	0.88	-0.03*	-0.02
Wyoming					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡
Carnegie Classification 2015: Basic					
Associate's	20.89	23.06	21.00	-0.11	2.06
Research and doctoral	4.90	5.30	4.92	-0.02	0.38
Master's	10.28	12.25	10.26	0.02	1.99*
Baccalaureate	11.09	11.63	11.09	#	0.54
Special focus and other	9.03	8.23	8.97	0.06	-0.74
Unavailable or unknown	43.82	39.53	43.75	0.07	-4.22
Degree of urbanization					
Large city	18.92	21.25	18.33	0.59	2.92
Midsized city	10.46	11.84	10.53	-0.07	1.31
Small city	15.24	12.66	15.07	0.17	-2.41
Large suburb	27.34	28.09	27.97	-0.63	0.12
Midsized suburb	2.82	2.76	2.86	-0.04	-0.10
Small suburb	3.51	1.65	3.54	-0.03	-1.89
Urban area on fringe of town	1.52	1.43	1.53	-0.01	-0.10

See notes at end of table.



**Table K-13. Undergraduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Degree of urbanization—Continued					
Urban area distant from town	7.38	4.98	7.44	-0.06	-2.46
Urban area remote from town	5.30	4.77	5.35	-0.05	-0.58
Rural area on fringe of town	5.57	6.06	5.43	0.14	0.63
Rural area distant from town	1.45	3.55	1.47	-0.02	2.08
Rural area remote from town	0.49	0.95	0.50	-0.01	0.45*
Bureau of Economic Analysis region <sup>3</sup>					
New England	5.04	5.50	5.04	#	0.46
Mideast	14.24	18.36	14.20	0.04	4.16
Great Lakes	15.18	14.35	15.31	-0.13	-0.96
Plains	8.24	7.27	8.36	-0.12*	-1.09
Southeast	22.90	24.32	23.54	-0.64*	0.78
Southwest	7.99	10.36	7.62	0.37	2.74
Rocky Mountains	12.15	3.85	12.22	-0.07	-8.37*
Far West	12.17	13.86	11.33	0.84*	2.53
Outlying Areas	2.10	2.13	2.38	-0.28	-0.25
Historically Black College or University					
Yes	1.41	1.36	1.43	-0.02	-0.07
No or unavailable or unknown	98.59	98.64	98.57	0.02	0.07
Hispanic-Serving Institution					
Yes	21.84	22.98	21.94	-0.10	1.04
No	78.16	77.02	78.06	0.10	-1.04
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–3	28.89	25.18	29.04	-0.15	-3.86
4–8	21.22	22.21	21.17	0.05	1.04
9–18	24.91	23.92	24.53	0.38	-0.61
19 or more	24.80	28.50	25.09	-0.29	3.41
Unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0–1	48.99	45.42	49.20	-0.21	-3.78
2	11.61	15.54	11.64	-0.03	3.90*
3–4	11.99	12.80	12.09	-0.10	0.71
5 or more	27.22	26.05	26.89	0.33	-0.84
Unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>4</sup>					
0–4	30.06	28.05	30.29	-0.23	-2.24
5–8	22.00	19.98	22.31	-0.31*	-2.33
9–18	18.14	19.43	17.91	0.23	1.52
19 or more	29.62	32.36	29.31	0.31	3.05
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-13. Undergraduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total undergraduate enrollment <sup>4</sup>					
1–996	57.84	54.64	57.73	0.11	-3.09
997–3,107	19.06	20.07	19.02	0.04	1.05
3,108–8,732	12.07	13.05	12.11	-0.04	0.94
8,733 or more	11.03	12.24	11.13	-0.10	1.11
Total male undergraduate enrollment <sup>4</sup>					
1–383	58.00	54.70	58.00	#	-3.30
384–1,284	18.74	19.50	18.58	0.16	0.92
1,285–3,715	12.14	13.54	12.22	-0.08	1.32
3,716 or more	11.11	12.27	11.20	-0.09	1.07
Total female undergraduate enrollment <sup>4</sup>					
1–538	58.73	55.49	58.57	0.16	-3.08
539–1,808	17.88	18.92	17.88	#	1.04
1,809–4,954	12.35	13.33	12.40	-0.05	0.93
4,955 or more	11.05	12.26	11.14	-0.09	1.12
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–38	26.68	23.77	26.47	0.21	-2.70
39–51	20.96	20.70	20.99	-0.03	-0.29
52–65	18.28	17.99	18.06	0.22	-0.07
66 or more	27.16	30.97	27.84	-0.68*	3.13
None or unknown	6.92	6.57	6.63	0.29	-0.06
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
1–7	51.01	42.43	51.14	-0.13	-8.71*
8–26	15.01	18.06	15.07	-0.06	2.99*
27–48	14.10	18.27	14.11	-0.01	4.16*
49 or more	12.95	14.67	13.04	-0.09	1.63
None or unknown	6.92	6.57	6.63	0.29	-0.06
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
1–8	41.73	38.78	41.96	-0.23	-3.18
9–32	18.85	19.23	18.90	-0.05	0.33
33–73	13.85	16.49	13.94	-0.09	2.55
74 or more	18.64	18.94	18.56	0.08	0.38
None or unknown	6.92	6.57	6.63	0.29	-0.06
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–17	19.98	18.61	19.85	0.13	-1.24
18–49	18.77	18.74	18.84	-0.07	-0.10
50–70	24.03	25.93	24.08	-0.05	1.85
71 or more	30.30	30.15	30.61	-0.31	-0.46
None or unknown	6.92	6.57	6.63	0.29	-0.06

See notes at end of table.

**Table K-13. Undergraduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$7,555	17.44	17.00	17.31	0.13	-0.31
\$7,556–\$12,488	22.76	22.19	23.01	-0.25	-0.82
\$12,489–\$19,479	27.95	27.94	28.10	-0.15	-0.16
\$19,480 or more	23.01	25.13	23.01	#	2.12
None or unknown	8.83	7.73	8.57	0.26	-0.84
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–66	38.23	31.56	37.80	0.43	-6.24*
67–81	16.75	21.90	17.22	-0.47	4.68
82–94	17.86	18.63	18.03	-0.17	0.60
95 or more	20.24	21.34	20.31	-0.07	1.03
None or unknown	6.92	6.57	6.63	0.29	-0.06
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–111	8.03	9.40	8.07	-0.04	1.33
112–289	8.45	8.34	8.41	0.04	-0.07
290–665	6.99	7.63	7.02	-0.03	0.61
666 or more	5.71	6.13	5.71	#	0.42
Unknown	70.82	68.50	70.80	0.02	-2.30
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–38	47.06	44.22	47.60	-0.54	-3.38
39–92	17.61	19.06	17.50	0.11	1.56
93–239	13.75	14.46	13.83	-0.08	0.63
240 or more	10.95	12.43	11.06	-0.11	1.37
Unknown	10.63	9.83	10.01	0.62	-0.18
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$4,870	34.69	31.57	34.70	-0.01	-3.13
\$4,871–\$5,914	20.55	21.18	21.05	-0.50	0.13
\$5,915–\$9,272	16.46	18.95	16.56	-0.10	2.39
\$9,273 or more	19.47	20.57	19.12	0.35	1.45
Unknown	8.83	7.73	8.57	0.26	-0.84

† Not applicable.

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-14. Undergraduate institution-level differences between means before and after poststratification for select variables for public less-than-2-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Degree of urbanization					
Large city	‡	‡	‡	‡	‡
Midsized city	‡	‡	‡	‡	‡
Small city	‡	‡	‡	‡	‡
Large suburb	‡	‡	‡	‡	‡
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	3.33	43.64	3.31	0.02	40.33
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	17.82	9.25	18.27	-0.45	-9.02
Southwest	19.72	10.69	19.68	0.04	-8.99
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡
Hispanic-Serving Institution					
Yes	‡	‡	‡	‡	‡
No	98.87	99.32	98.86	0.01	0.46
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–1	60.29	50.21	59.91	0.38	-9.70
2–3	20.70	21.65	20.65	0.05	1.00
4–10	4.97	9.53	4.95	0.02	4.58
11 or more	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0	64.97	49.90	64.64	0.33	-14.74
1	‡	‡	‡	‡	‡
2	6.63	28.66	6.63	#	22.03
3 or more	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>4</sup>					
0–2	61.99	28.54	61.61	0.38	-33.07
3–7	‡	‡	‡	‡	‡
8–13	14.21	8.20	14.15	0.06	-5.95
14 or more	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-14. Undergraduate institution-level differences between means before and after poststratification for select variables for public less-than-2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total undergraduate enrollment <sup>4</sup>					
1–184	62.53	65.64	62.16	0.37	3.48
185–514	1.35	21.02	1.40	-0.05	19.62
515–944	26.98	9.90	27.24	-0.26	-17.34
945 or more	‡	‡	‡	‡	‡
Total male undergraduate enrollment <sup>4</sup>					
1–96	61.22	65.43	60.85	0.37	4.58
97–271	2.66	16.06	2.71	-0.05	13.35
272–542	26.98	15.46	27.24	-0.26	-11.78
543 or more	‡	‡	‡	‡	‡
Total female undergraduate enrollment <sup>4</sup>					
1–88	62.56	59.49	62.21	0.35	-2.72
89–218	16.31	27.55	16.27	0.04	11.28
219–489	9.43	9.04	9.72	-0.29	-0.68
490 or more	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–36	‡	‡	‡	‡	‡
37–48	‡	‡	‡	‡	‡
49–72	60.68	17.59	60.31	0.37	-42.72
73 or more	10.27	53.64	10.56	-0.29	43.08
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
1–3	‡	‡	‡	‡	‡
4–12	‡	‡	‡	‡	‡
13–33	23.41	23.43	23.67	-0.26	-0.24
34 or more	1.20	62.27	1.18	0.02	61.09*
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
0	65.74	78.05	65.40	0.34	12.65
1–8	7.29	9.99	7.40	-0.11	2.59
9–18	10.86	7.81	11.17	-0.31	-3.36
19 or more	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
0	35.64	20.82	35.85	-0.21	-15.03
1–20	‡	‡	‡	‡	‡
21 or more	57.76	77.68	57.41	0.35	20.27

See notes at end of table.

**Table K-14. Undergraduate institution-level differences between means before and after poststratification for select variables for public less-than-2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$3,793	‡	‡	‡	‡	‡
\$3,794–\$7,150	6.42	4.87	6.38	0.04	-1.51
\$7,151–\$12,963	‡	‡	‡	‡	‡
\$12,964 or more	58.89	65.22	58.64	0.25	6.58
None or unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–47	‡	‡	‡	‡	‡
48–67	‡	‡	‡	‡	‡
68–82	9.92	71.40	10.22	-0.30	61.18*
83 or more	2.51	9.98	2.48	0.03	7.50
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–4	‡	‡	‡	‡	‡
5–7	‡	‡	‡	‡	‡
Unknown	99.36	98.99	99.37	-0.01	-0.38
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–4	‡	‡	‡	‡	‡
5–9	59.34	43.70	59.02	0.32	-15.32
10–19	‡	‡	‡	‡	‡
20 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$3,436	5.06	9.55	5.11	-0.05	4.44
\$3,437–\$4,382	‡	‡	‡	‡	‡
\$4,383–\$5,765	14.51	43.89	14.47	0.04	29.42
\$5,766 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-15. Undergraduate institution-level differences between means before and after poststratification for select variables for public 2-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Degree of urbanization					
Large city	9.56	10.95	9.35	0.21	1.60*
Midsized city	7.35	7.23	7.23	0.12	#
Small city	11.49	11.67	11.22	0.27	0.45
Large suburb	15.26	15.39	17.56	-2.30	-2.17
Midsized suburb	2.72	3.10	2.63	0.09	0.47
Small suburb	2.96	2.58	2.90	0.06	-0.32
Urban area on fringe of town	1.41	1.86	1.37	0.04	0.49
Urban area distant from town	13.99	11.15	13.57	0.42	-2.42
Urban area remote from town	11.59	11.57	11.23	0.36	0.34
Rural area on fringe of town	16.22	16.84	15.71	0.51	1.13
Rural area distant from town	6.13	5.60	5.94	0.19	-0.34
Rural area remote from town	1.33	2.07	1.29	0.04	0.78*
Bureau of Economic Analysis region <sup>3</sup>					
New England	4.51	4.65	4.36	0.15	0.29
Mideast	9.07	9.30	8.78	0.29	0.52
Great Lakes	12.99	12.70	12.59	0.40	0.11
Plains	12.09	11.15	11.70	0.39	-0.55
Southeast	32.00	31.21	31.42	0.58	-0.21
Southwest	11.58	12.50	11.25	0.33	1.25
Rocky Mountains	3.79	3.92	3.67	0.12	0.25
Far West	13.75	14.05	13.32	0.43	0.73
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	‡	‡	‡	‡	‡
No or unavailable or unknown	99.03	98.97	99.06	-0.03	-0.09
Hispanic-Serving Institution					
Yes	21.41	23.45	23.46	-2.05	-0.01
No	78.59	76.55	76.54	2.05	0.01
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–3	28.56	29.15	30.36	-1.80	-1.21
4–8	22.42	21.17	21.75	0.67	-0.58
9–18	26.76	26.85	25.95	0.81	0.90
19 or more	22.27	22.83	21.94	0.33	0.89
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0–1	47.78	46.08	49.23	-1.45	-3.15
2	15.80	16.22	15.35	0.45	0.87
3–4	16.46	17.35	16.00	0.46	1.35
5 or more	19.96	20.35	19.42	0.54	0.93

See notes at end of table.

**Table K-15. Undergraduate institution-level differences between means before and after poststratification for select variables for public 2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students enrolled:					
Hispanic <sup>4</sup>					
0–4	34.50	30.59	33.58	0.92	-2.99
5–9	18.83	19.73	18.38	0.45	1.35
10–25	24.37	25.31	23.72	0.65	1.59
26 or more	22.30	24.38	24.32	-2.02	0.06
Total undergraduate enrollment <sup>4</sup>					
1–2,353	26.04	25.53	28.00	-1.96	-2.47
2,354–5,339	24.45	24.79	23.69	0.76	1.10
5,340–11,644	24.67	24.89	24.15	0.52	0.74
11,645 or more	24.84	24.79	24.16	0.68	0.63
Total male undergraduate enrollment <sup>4</sup>					
1–933	26.47	25.53	28.41	-1.94	-2.88
934–2,240	23.72	24.79	23.06	0.66	1.73
2,241–4,994	24.85	24.89	24.33	0.52	0.56
4,995 or more	24.96	24.79	24.19	0.77	0.60
Total female undergraduate enrollment <sup>4</sup>					
1–1,361	25.59	25.53	27.56	-1.97	-2.03
1,362–3,087	25.14	24.79	24.35	0.79	0.44
3,088–6,534	24.96	24.89	24.44	0.52	0.45
6,535 or more	24.31	24.79	23.65	0.66	1.14
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–46	25.94	25.51	25.14	0.80	0.37
47–56	25.85	26.44	25.08	0.77	1.36
57–65	22.80	23.24	22.18	0.62	1.06
66 or more	24.92	24.60	27.07	-2.15	-2.47
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
1–16	24.81	25.74	26.76	-1.95	-1.02
17–32	26.79	25.82	25.96	0.83	-0.14
33–57	23.71	23.65	23.14	0.57	0.51
58 or more	24.19	24.58	23.60	0.59	0.98
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
1–4	25.84	26.46	28.08	-2.24	-1.62
5–14	25.86	25.31	25.05	0.81	0.26
15–29	21.93	23.76	21.26	0.67	2.50*
30 or more	25.87	24.27	25.07	0.80	-0.80
None or unknown	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-15. Undergraduate institution-level differences between means before and after poststratification for select variables for public 2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1	25.98	25.10	27.91	-1.93	-2.81
2–14	24.92	25.94	24.32	0.60	1.62
15–32	25.19	23.96	24.53	0.66	-0.57
33 or more	23.41	24.79	22.71	0.70	2.08
None or unknown	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$5,471	23.54	24.79	25.77	-2.23	-0.98
\$5,472–\$7,096	24.37	25.43	23.61	0.76	1.82
\$7,097–\$9,012	26.42	24.69	25.69	0.73	-1.00
\$9,013 or more	24.88	24.69	24.11	0.77	0.58
None or unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–63	25.81	25.72	25.02	0.79	0.70
64–75	25.09	25.61	24.35	0.74	1.26
76–85	21.99	23.77	24.21	-2.22	-0.44
86 or more	26.60	24.69	25.90	0.70	-1.21
None or unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–38	5.76	5.99	5.59	0.17	0.40
39–72	4.90	5.68	4.75	0.15	0.93*
73–136	6.07	5.78	5.89	0.18	-0.11
137 or more	6.21	5.78	6.02	0.19	-0.24
Unknown	77.05	76.76	77.76	-0.71	-1.00
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–61	26.64	25.84	28.54	-1.90	-2.70
62–126	23.72	24.07	23.10	0.62	0.97
127–256	23.86	24.48	23.19	0.67	1.29
257 or more	24.53	24.58	23.92	0.61	0.66
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-15. Undergraduate institution-level differences between means before and after poststratification for select variables for public 2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$4,599	24.77	24.79	24.01	0.76	0.78
\$4,600–\$5,137	26.56	24.69	25.77	0.79	-1.08
\$5,138–\$5,724	22.42	24.79	24.48	-2.06	0.31
\$5,725 or more	25.46	25.32	24.93	0.53	0.39
Unknown	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .

<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.

<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-16. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	64.50	66.00	64.59	-0.09	1.41
Research and doctoral	‡	‡	‡	‡	‡
Master's	‡	‡	‡	‡	‡
Baccalaureate	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	‡	‡	‡	‡	‡
Midsized city	‡	‡	‡	‡	‡
Small city	‡	‡	‡	‡	‡
Large suburb	15.86	14.67	15.88	-0.02	-1.21
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	23.63	26.00	23.68	-0.05*	2.32
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	25.73	31.33	25.76	-0.03	5.57*
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	‡	‡	‡	‡	‡
No or unavailable or unknown	99.32	99.33	99.32	#	0.01
Hispanic-Serving Institution					
Yes	20.50	22.67	20.44	0.06	2.23
No	79.50	77.33	79.56	-0.06	-2.23
Percentage of undergraduate students enrolled:					
Black, non-Hispanic <sup>4</sup>					
0–2	26.69	26.00	26.62	0.07	-0.62
3–7	24.73	24.00	24.72	0.01	-0.72
8–13	27.26	26.00	27.31	-0.05*	-1.31
14 or more	21.32	24.00	21.35	-0.03	2.65

See notes at end of table.

**Table K-16. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students enrolled:					
Asian or Pacific Islander <sup>4</sup>					
0–1	‡	‡	‡	‡	‡
2	‡	‡	‡	‡	‡
3–5	25.54	28.00	25.58	-0.04*	2.42
6 or more	17.94	21.33	17.95	-0.01	3.38
Percentage of undergraduate students enrolled:					
Hispanic <sup>4</sup>					
0–5	37.49	30.67	37.48	0.01	-6.81*
6–10	18.23	22.00	18.26	-0.03*	3.74
11–23	‡	‡	‡	‡	‡
24 or more	22.08	24.00	22.03	0.05	1.97
Total undergraduate enrollment <sup>4</sup>					
1–3,290	27.80	25.33	27.70	0.10	-2.37
3,291–6,497	26.18	24.67	26.21	-0.03	-1.54
6,498–15,347	23.26	25.33	23.29	-0.03	2.04
15,348 or more	22.76	24.67	22.81	-0.05*	1.86
Total male undergraduate enrollment <sup>4</sup>					
1–1,404	‡	‡	‡	‡	‡
1,405–2,855	24.57	24.67	24.60	-0.03	0.07
2,856–6,354	21.91	25.33	21.94	-0.03	3.39
6,355 or more	23.65	24.67	23.70	-0.05*	0.97
Total female undergraduate enrollment <sup>4</sup>					
1–1,802	27.48	25.33	27.37	0.11	-2.04
1,803–3,847	27.02	24.67	27.04	-0.02	-2.37
3,848–9,052	22.89	25.33	22.92	-0.03	2.41
9,053 or more	22.61	24.67	22.66	-0.05*	2.01
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–40	27.01	25.33	27.00	0.01	-1.67
41–50	26.99	24.67	27.02	-0.03	-2.35
51–61	26.34	28.00	26.39	-0.05*	1.61
62 or more	19.65	22.00	19.59	0.06	2.41
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
1–24	30.47	26.67	30.45	0.02	-3.78
25–36	25.17	24.67	25.20	-0.03	-0.53
37–48	23.39	25.33	23.38	0.01	1.95
49 or more	20.98	23.33	20.96	0.02	2.37

See notes at end of table.

**Table K-16. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
1–9	25.06	26.00	25.04	0.02	0.96
10–19	22.22	24.00	22.22	#	1.78
20–34	24.82	25.33	24.86	-0.04*	0.47
35 or more	27.90	24.67	27.88	0.02	-3.21
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–6	25.78	26.00	25.72	0.06	0.28
7–18	18.82	26.00	18.85	-0.03	7.15*
19–45	‡	‡	‡	‡	‡
46 or more	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$5,818	21.78	25.33	21.76	0.02	3.57*
\$5,819–\$7,265	26.72	25.33	26.76	-0.04	-1.43
\$7,266–\$9,546	24.93	24.67	24.95	-0.02	-0.28
\$9,547 or more	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–59	28.34	27.33	28.37	-0.03	-1.04
60–69	22.13	23.33	22.16	-0.03*	1.17
70–83	27.62	25.33	27.66	-0.04	-2.33
84 or more	21.91	24.00	21.80	0.11	2.20
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–19	‡	‡	‡	‡	‡
20–65	7.59	9.33	7.60	-0.01	1.73
66–248	‡	‡	‡	‡	‡
249 or more	‡	‡	‡	‡	‡
Unknown	64.58	61.33	64.58	#	-3.25
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–74	29.66	25.33	29.65	0.01	-4.32
75–140	22.37	24.67	22.40	-0.03	2.27
141–337	25.40	25.33	25.34	0.06	-0.01
338 or more	22.57	24.67	22.61	-0.04*	2.06

See notes at end of table.

**Table K-16. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$4,763	30.26	25.33	30.29	-0.03	-4.96*
\$4,764–\$5,525	23.41	24.67	23.36	0.05	1.31
\$5,526–\$6,300	22.95	25.33	22.97	-0.02	2.36
\$6,301 or more	23.38	24.67	23.37	0.01	1.30

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-17. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡
Master's	50.68	53.98	50.75	-0.07	3.23
Baccalaureate	42.42	38.50	42.37	0.05	-3.87
Special focus and other	‡	‡	‡	‡	‡
Unavailable or unknown	2.91	3.10	2.91	#	0.19
Degree of urbanization					
Large city	‡	‡	‡	‡	‡
Midsized city	5.99	9.29	6.00	-0.01	3.29*
Small city	‡	‡	‡	‡	‡
Large suburb	15.09	15.93	15.10	-0.01	0.83
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	14.17	15.04	14.18	-0.01	0.86
Urban area remote from town	13.18	15.04	13.15	0.03	1.89
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	10.11	11.50	10.09	0.02	1.41
Mideast	22.05	20.80	22.07	-0.02	-1.27
Great Lakes	‡	‡	‡	‡	‡
Plains	10.02	10.62	10.03	-0.01	0.59
Southeast	22.74	22.12	22.76	-0.02	-0.64
Southwest	7.44	8.85	7.45	-0.01	1.40
Rocky Mountains	‡	‡	‡	‡	‡
Far West	9.37	8.85	9.38	-0.01	-0.53
Outlying Areas	2.51	3.98	2.41	0.10	1.57
Historically Black College or University					
Yes	‡	‡	‡	‡	‡
No or unavailable or unknown	93.88	93.81	93.87	0.01	-0.06
Hispanic-Serving Institution					
Yes	11.75	15.93	11.66	0.09	4.27*
No	88.25	84.07	88.34	-0.09	-4.27*
Percentage of undergraduate students enrolled:					
Black, non-Hispanic <sup>4</sup>					
0–3	30.09	29.20	29.98	0.11*	-0.78
4–6	21.91	24.34	21.91	#	2.43
7–12	20.83	22.12	20.88	-0.05*	1.24
13 or more	27.17	24.34	27.22	-0.05	-2.88

See notes at end of table.

**Table K-17. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students enrolled:					
Asian or Pacific Islander <sup>4</sup>					
0–1	40.33	41.59	40.21	0.12*	1.38
2	22.35	19.03	22.41	-0.06*	-3.38
3–4	17.64	16.81	17.69	-0.05*	-0.88
5 or more	19.68	22.57	19.70	-0.02	2.87
Percentage of undergraduate students enrolled:					
Hispanic <sup>4</sup>					
0–4	34.38	29.65	34.36	0.02	-4.71*
5–7	23.65	23.01	23.68	-0.03	-0.67
8–16	23.27	23.89	23.34	-0.07*	0.55
17 or more	18.70	23.45	18.62	0.08	4.83*
Total undergraduate enrollment <sup>4</sup>					
1–2,175	26.07	25.22	26.04	0.03	-0.82
2,176–4,012	24.57	24.78	24.50	0.07	0.28
4,013–6,439	25.23	25.22	25.30	-0.07*	-0.08
6,440 or more	24.13	24.78	24.16	-0.03	0.62
Total male undergraduate enrollment <sup>4</sup>					
1–894	27.08	25.22	27.05	0.03	-1.83
895–1,669	20.66	24.78	20.60	0.06	4.18*
1,670–2,684	28.13	25.22	28.21	-0.08*	-2.99
2,685 or more	24.12	24.78	24.15	-0.03	0.63
Total female undergraduate enrollment <sup>4</sup>					
1–1,281	26.34	25.22	26.28	0.06	-1.06
1,282–2,404	23.87	24.78	23.82	0.05	0.96
2,405–3,859	26.29	25.22	26.37	-0.08*	-1.15
3,860 or more	23.51	24.78	23.53	-0.02	1.25
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–36	25.53	25.22	25.59	-0.06*	-0.37
37–45	23.00	23.45	23.03	-0.03	0.42
46–57	27.30	26.11	27.32	-0.02	-1.21
58 or more	20.60	22.12	20.52	0.08	1.60
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
1–27	25.21	24.34	25.22	-0.01	-0.88
28–41	28.16	25.22	28.16	#	-2.94
42–58	21.22	24.34	21.20	0.02	3.14
59 or more	21.85	23.01	21.87	-0.02	1.14
None or unknown	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-17. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
1–37	24.09	25.22	24.03	0.06	1.19
38–56	24.69	24.78	24.73	-0.04	0.05
57–75	23.51	23.89	23.53	-0.02	0.36
76 or more	24.15	23.01	24.16	-0.01	-1.15
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–44	24.56	24.78	24.50	0.06	0.28
45–57	22.22	23.89	22.25	-0.03	1.64
58–70	26.47	24.34	26.50	-0.03	-2.16
71 or more	23.19	23.89	23.20	-0.01	0.69
None or unknown	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$9,985	22.78	24.34	22.74	0.04	1.60
\$9,986–\$12,994	26.64	24.34	26.68	-0.04	-2.34
\$12,995–\$16,072	20.97	24.34	20.97	#	3.37
\$16,073 or more	26.04	23.89	26.08	-0.04	-2.19
None or unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–70	24.48	24.78	24.53	-0.05*	0.25
71–82	24.16	23.89	24.16	#	-0.27
83–90	26.03	26.99	26.01	0.02	0.98
91 or more	21.78	21.24	21.77	0.01	-0.53
None or unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–133	22.62	20.35	22.64	-0.02	-2.29
134–242	19.14	20.35	19.14	#	1.21
243–475	23.37	20.35	23.40	-0.03	-3.05
476 or more	16.90	19.91	16.94	-0.04	2.97
Unknown	17.97	19.03	17.88	0.09	1.15
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–55	26.10	24.34	26.09	0.01	-1.75
56–120	22.93	24.34	22.93	#	1.41
121–244	23.57	24.34	23.64	-0.07*	0.70
245 or more	23.85	23.89	23.80	0.05	0.09
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-17. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$5,971	24.21	24.34	24.14	0.07	0.20
\$5,972–\$7,276	27.24	24.34	27.27	-0.03	-2.93
\$7,277–\$8,481	24.06	24.34	24.10	-0.04	0.24
\$8,482 or more	20.93	23.89	20.95	-0.02	2.94
Unknown	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-18. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	51.69	53.74	51.66	0.03	2.08
Master's	40.28	39.61	40.31	-0.03	-0.70
Baccalaureate	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	26.28	24.93	26.27	0.01	-1.34
Midsized city	16.06	17.17	16.07	-0.01	1.10
Small city	19.91	19.11	19.90	0.01	-0.79
Large suburb	11.03	11.63	11.05	-0.02	0.58
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	6.87	7.76	6.87	#	0.89
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	16.11	15.24	16.11	#	-0.87
Great Lakes	13.04	14.13	13.08	-0.04*	1.05
Plains	‡	‡	‡	‡	‡
Southeast	27.17	28.25	27.17	#	1.08
Southwest	13.78	13.57	13.77	0.01	-0.20
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	6.66	6.65	6.66	#	-0.01
No or unavailable or unknown	93.34	93.35	93.34	#	0.01
Hispanic-Serving Institution					
Yes	‡	‡	‡	‡	‡
No	81.53	83.10	81.57	-0.04	1.53
Percentage of undergraduate students enrolled:					
Black, non-Hispanic <sup>4</sup>					
0–4	31.46	31.58	31.41	0.05	0.17
5–7	19.82	18.84	19.82	#	-0.98
8–16	24.77	24.65	24.80	-0.03	-0.15
17 or more	23.11	24.10	23.12	-0.01	0.98
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-18. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students enrolled:					
Asian or Pacific Islander <sup>4</sup>					
0–2	41.35	41.83	41.32	0.03	0.51
3	9.96	10.25	9.96	#	0.29
4–7	24.71	24.10	24.75	-0.04*	-0.65
8 or more	23.13	22.99	23.13	#	-0.14
Unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled:					
Hispanic <sup>4</sup>					
0–4	27.62	28.25	27.60	0.02	0.65
5–7	23.36	22.71	23.38	-0.02	-0.67
8–18	22.05	24.10	22.08	-0.03	2.02
19 or more	26.13	24.10	26.09	0.04*	-1.99*
Unknown	‡	‡	‡	‡	‡
Total undergraduate enrollment <sup>4</sup>					
1–7,874	26.35	25.21	26.36	-0.01	-1.15
7,875–13,130	25.54	24.93	25.54	#	-0.61
13,131–22,849	23.11	24.93	23.10	0.01	1.83
22,850 or more	25.00	24.93	25.01	-0.01	-0.08
Total male undergraduate enrollment <sup>4</sup>					
1–3,301	26.74	25.21	26.74	#	-1.53
3,302–6,034	24.90	24.93	24.90	#	0.03
6,035–10,629	23.49	24.93	23.47	0.02	1.46
10,630 or more	24.88	24.93	24.89	-0.01	0.04
Total female undergraduate enrollment <sup>4</sup>					
1–4,358	26.00	25.21	26.01	-0.01	-0.80
4,359–7,326	25.43	24.93	25.44	-0.01	-0.51
7,327–12,110	24.49	24.93	24.45	0.04	0.48
12,111 or more	24.08	24.93	24.09	-0.01	0.84
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–28	22.90	23.55	22.89	0.01	0.66
29–39	25.54	25.21	25.56	-0.02	-0.35
40–51	20.88	21.88	20.90	-0.02	0.98
52 or more	24.62	23.55	24.59	0.03	-1.04
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
1–21	23.44	24.38	23.44	#	0.94
22–36	23.73	23.27	23.73	#	-0.46
37–58	24.61	23.27	24.61	#	-1.34
59 or more	22.17	23.27	22.17	#	1.10
None or unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-18. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
1–42	22.48	23.55	22.47	0.01	1.08
43–58	26.93	25.21	26.94	-0.01	-1.73
59–70	21.11	22.16	21.14	-0.03	1.02
71 or more	23.42	23.27	23.39	0.03	-0.12
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–41	25.96	24.65	25.93	0.03	-1.28
42–53	22.29	23.27	22.29	#	0.98
54–65	23.22	23.82	23.22	#	0.60
66 or more	22.47	22.44	22.49	-0.02	-0.05
None or unknown	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$12,004	24.93	23.55	24.91	0.02	-1.36
\$12,005–\$14,265	22.23	23.55	22.23	#	1.32
\$14,266–\$16,823	22.79	23.55	22.80	-0.01	0.75
\$16,824 or more	24.00	23.55	24.00	#	-0.45
None or unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–68	23.02	23.55	23.06	-0.04*	0.49
69–80	24.72	24.65	24.71	0.01	-0.06
81–89	25.53	25.48	25.53	#	-0.05
90 or more	20.66	20.50	20.64	0.02	-0.14
None or unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–483	24.28	23.27	24.27	0.01	-1.00
484–908	23.35	22.99	23.36	-0.01	-0.37
909–1,583	21.20	22.99	21.21	-0.01	1.78
1,584 or more	22.86	22.99	22.87	-0.01	0.12
Unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–204	24.80	23.55	24.78	0.02	-1.23
205–339	23.40	23.55	23.44	-0.04*	0.11
340–557	21.98	23.55	21.98	#	1.57
558 or more	23.77	23.55	23.74	0.03	-0.19
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-18. Undergraduate institution-level differences between means before and after poststratification for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$6,778	24.47	23.82	24.48	-0.01	-0.66
\$6,779–\$8,176	24.72	23.27	24.72	#	-1.45
\$8,177–\$9,547	20.36	23.55	20.36	#	3.19*
\$9,548 or more	24.38	23.55	24.38	#	-0.83
Unknown	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-19. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit less-than-4-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	14.67	20.46	14.81	-0.14	5.65
Research and doctoral	‡	‡	‡	‡	‡
Master's	‡	‡	‡	‡	‡
Baccalaureate	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡
Unavailable or unknown	83.23	77.47	83.03	0.20	-5.56
Degree of urbanization					
Large city	‡	‡	‡	‡	‡
Midsize city	‡	‡	‡	‡	‡
Small city	‡	‡	‡	‡	‡
Large suburb	‡	‡	‡	‡	‡
Midsize suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	‡	‡	‡	‡	‡
No or unavailable or unknown	99.62	99.59	99.59	0.03	#
Hispanic-Serving Institution					
Yes	‡	‡	‡	‡	‡
No	19.97	23.31	20.89	-0.92	2.42
Percentage of undergraduate students enrolled:					
Black, non-Hispanic <sup>4</sup>					
0	‡	‡	‡	‡	‡
1–10	‡	‡	‡	‡	‡
11–17	‡	‡	‡	‡	‡
18 or more	1.69	8.40	1.77	-0.08	6.63
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-19. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students enrolled:					
Asian or Pacific Islander <sup>4</sup>					
0	‡	‡	‡	‡	‡
1	‡	‡	‡	‡	‡
2–3	‡	‡	‡	‡	‡
4 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled:					
Hispanic <sup>4</sup>					
0–1	11.29	8.30	11.90	-0.61	-3.60
2–7	‡	‡	‡	‡	‡
8–17	‡	‡	‡	‡	‡
18 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Total undergraduate enrollment <sup>4</sup>					
1–59	‡	‡	‡	‡	‡
60–216	‡	‡	‡	‡	‡
217–826	26.87	36.22	24.26	2.61	11.96*
827 or more	‡	‡	‡	‡	‡
Total male undergraduate enrollment <sup>4</sup>					
1–14	‡	‡	‡	‡	‡
15–42	‡	‡	‡	‡	‡
43–257	0.66	7.02	0.70	-0.04	6.32
258 or more	‡	‡	‡	‡	‡
Total female undergraduate enrollment <sup>4</sup>					
1–33	‡	‡	‡	‡	‡
34–129	‡	‡	‡	‡	‡
130–398	‡	‡	‡	‡	‡
399 or more	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–52	‡	‡	‡	‡	‡
53–66	‡	‡	‡	‡	‡
67–85	‡	‡	‡	‡	‡
86 or more	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
0	‡	‡	‡	‡	‡
1–6	‡	‡	‡	‡	‡
7–17	‡	‡	‡	‡	‡
18 or more	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-19. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
0	‡	‡	‡	‡	‡
1–31	‡	‡	‡	‡	‡
32–73	‡	‡	‡	‡	‡
74 or more	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–31	‡	‡	‡	‡	‡
32–69	‡	‡	‡	‡	‡
70–79	‡	‡	‡	‡	‡
80 or more	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$9,790	‡	‡	‡	‡	‡
\$9,791–\$16,299	‡	‡	‡	‡	‡
\$16,300–\$22,420	‡	‡	‡	‡	‡
\$22,421 or more	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–65	‡	‡	‡	‡	‡
66–84	‡	‡	‡	‡	‡
85–93	‡	‡	‡	‡	‡
94 or more	‡	‡	‡	‡	‡
None or unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0	‡	‡	‡	‡	‡
1–36	‡	‡	‡	‡	‡
37–71	‡	‡	‡	‡	‡
72 or more	‡	‡	‡	‡	‡
Unknown	95.58	92.62	95.77	-0.19	-3.15
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–9	‡	‡	‡	‡	‡
10–24	‡	‡	‡	‡	‡
25–82	‡	‡	‡	‡	‡
83 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-19. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$4,816	‡	‡	‡	‡	‡
\$4,817–\$5,920	‡	‡	‡	‡	‡
\$5,921–\$9,373	‡	‡	‡	‡	‡
\$9,374 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-20. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡
Master's	18.98	22.53	18.94	0.04	3.59
Baccalaureate	55.22	56.08	55.24	-0.02	0.84
Special focus and other	20.87	17.51	21.06	-0.19	-3.55
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	15.12	13.61	14.97	0.15	-1.36
Midsized city	10.37	8.88	10.30	0.07	-1.42
Small city	15.95	12.50	15.95	#	-3.45
Large suburb	20.27	26.51	20.35	-0.08	6.16
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	9.90	9.10	10.12	-0.22*	-1.02
Urban area remote from town	3.52	3.54	3.59	-0.07	-0.05
Rural area on fringe of town	9.38	11.59	8.98	0.40	2.61
Rural area distant from town	2.52	2.55	2.57	-0.05*	-0.02
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	9.11	9.50	9.12	-0.01	0.38
Mideast	17.41	16.46	17.30	0.11	-0.84
Great Lakes	14.09	17.95	14.30	-0.21*	3.65
Plains	11.47	11.16	11.75	-0.28*	-0.59
Southeast	22.95	26.30	23.67	-0.72*	2.63
Southwest	4.63	4.47	4.22	0.41*	0.25
Rocky Mountains	9.03	2.88	9.14	-0.11	-6.26
Far West	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	4.25	3.30	4.36	-0.11	-1.06
No or unavailable or unknown	95.75	96.70	95.64	0.11	1.06
Hispanic-Serving Institution					
Yes	‡	‡	‡	‡	‡
No	91.03	92.46	91.53	-0.50*	0.93
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–3	24.76	20.28	24.99	-0.23	-4.71
4–7	26.90	25.42	26.33	0.57	-0.91
8–16	25.30	26.23	25.26	0.04	0.97
17 or more	22.74	27.83	23.12	-0.38*	4.71
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-20. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0–1	41.11	41.94	41.72	-0.61*	0.22
2	13.10	17.63	13.09	0.01	4.54
3–4	17.98	16.71	17.90	0.08	-1.19
5 or more	27.51	23.48	26.99	0.52	-3.51
Unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled: Hispanic <sup>4</sup>					
0–3	20.66	23.57	21.11	-0.45*	2.46
4–6	23.71	18.99	23.99	-0.28	-5.00
7–10	21.93	23.73	22.16	-0.23	1.57
11 or more	33.40	33.47	32.43	0.97*	1.04
Unknown	‡	‡	‡	‡	‡
Total undergraduate enrollment <sup>4</sup>					
1–825	28.64	34.61	28.98	-0.34	5.63
826–1,466	32.55	30.54	32.06	0.49	-1.52
1,467–2,139	20.15	18.44	20.41	-0.26	-1.97
2,140 or more	18.66	16.41	18.56	0.10	-2.15
Total male undergraduate enrollment <sup>4</sup>					
1–304	33.53	38.46	33.91	-0.38	4.55
305–617	24.92	23.95	24.66	0.26	-0.71
618–948	21.95	20.29	21.92	0.03	-1.63
949 or more	19.60	17.30	19.50	0.10	-2.20
Total female undergraduate enrollment <sup>4</sup>					
1–415	29.16	29.39	29.47	-0.31	-0.08
416–809	25.71	28.58	25.87	-0.16	2.71
810–1,222	27.01	26.20	26.67	0.34	-0.47
1,223 or more	18.12	15.83	18.00	0.12	-2.17
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–29	27.84	22.41	28.05	-0.21	-5.64*
30–43	20.11	20.78	19.75	0.36	1.03
44–59	23.55	21.02	23.55	#	-2.53
60 or more	25.63	28.72	25.72	-0.09	3.00
None or unknown	2.88	7.06	2.93	-0.05	4.13
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
1–10	23.64	16.04	23.70	-0.06	-7.66*
11–27	24.01	26.29	24.15	-0.14	2.14
28–48	24.17	23.88	23.84	0.33	0.04
49 or more	25.30	26.72	25.38	-0.08	1.34
None or unknown	2.88	7.06	2.93	-0.05	4.13

See notes at end of table.

**Table K-20. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
1–79	33.20	32.95	33.11	0.09	-0.16
80–97	21.91	22.04	22.13	-0.22	-0.09
98–100	42.01	37.94	41.83	0.18	-3.89
None or unknown	2.88	7.06	2.93	-0.05	4.13
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–57	25.32	23.71	25.35	-0.03	-1.64
58–70	20.70	22.20	20.66	0.04	1.54
71–81	19.98	18.18	19.55	0.43	-1.37
82 or more	31.12	28.85	31.51	-0.39	-2.66
None or unknown	2.88	7.06	2.93	-0.05	4.13
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$17,558	25.49	30.88	25.42	0.07	5.46
\$17,559–\$21,808	17.67	16.03	17.94	-0.27	-1.91
\$21,809–\$25,980	27.44	25.38	27.04	0.40	-1.66
\$25,981 or more	26.05	20.20	26.19	-0.14	-5.99*
None or unknown	3.35	7.51	3.41	-0.06	4.10
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–95	32.61	29.88	32.75	-0.14	-2.87
96–99	25.54	28.32	25.39	0.15	2.93
100	38.98	34.73	38.93	0.05	-4.20
None or unknown	2.88	7.06	2.93	-0.05	4.13
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–128	20.95	20.33	21.14	-0.19	-0.81
129–238	22.96	21.93	22.49	0.47	-0.56
239–373	17.08	15.58	17.35	-0.27*	-1.77
374 or more	15.76	13.83	15.88	-0.12	-2.05
Unknown	23.25	28.34	23.13	0.12	5.21
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–27	31.84	29.50	32.24	-0.40	-2.74
28–46	22.66	24.53	22.20	0.46	2.33
47–75	22.11	20.60	21.97	0.14	-1.37
76 or more	20.04	17.85	20.18	-0.14	-2.33
Unknown	3.35	7.51	3.41	-0.06	4.10

See notes at end of table.

**Table K-20. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$11,086	33.50	30.06	33.57	-0.07	-3.51
\$11,087–\$18,758	14.97	18.04	15.07	-0.10	2.97
\$18,759–\$24,538	24.31	23.55	23.90	0.41	-0.35
\$24,539 or more	23.87	20.83	24.06	-0.19	-3.23
Unknown	3.35	7.51	3.41	-0.06	4.10

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-21. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	18.73	18.23	18.83	-0.10	-0.60
Master's	38.97	42.66	39.28	-0.31	3.38
Baccalaureate	7.30	6.38	7.50	-0.20	-1.12
Special focus and other	34.76	32.55	34.16	0.60	-1.61
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	39.42	48.16	39.62	-0.20	8.54
Midsized city	9.23	8.79	9.39	-0.16	-0.60
Small city	9.79	9.90	10.19	-0.40*	-0.29
Large suburb	20.26	21.15	20.28	-0.02	0.87
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	17.25	30.71	17.48	-0.23	13.23
Great Lakes	22.32	14.79	22.98	-0.66*	-8.19
Plains	9.93	7.97	10.37	-0.44*	-2.40
Southeast	14.78	14.87	15.53	-0.75*	-0.66
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	21.19	17.86	19.35	1.84*	-1.49
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	‡	‡	‡	‡	‡
No or unavailable or unknown	98.59	98.84	98.52	0.07	0.32
Hispanic-Serving Institution					
Yes	8.40	6.65	7.96	0.44	-1.31
No	91.60	93.35	92.04	-0.44	1.31
Percentage of undergraduate students enrolled:					
Black, non-Hispanic <sup>4</sup>					
0–4	45.28	34.98	44.68	0.60	-9.70
5–7	23.88	22.29	23.90	-0.02	-1.61
8–12	14.71	18.48	14.85	-0.14	3.63
13 or more	15.78	23.79	16.23	-0.45*	7.56
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-21. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students enrolled:					
Asian or Pacific Islander <sup>4</sup>					
0–2	33.27	42.10	34.02	-0.75	8.08
3	10.31	12.11	10.52	-0.21	1.59
4–8	28.15	20.11	28.73	-0.58	-8.62
9 or more	27.92	25.21	26.39	1.53*	-1.18
Unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled:					
Hispanic <sup>4</sup>					
0–5	38.86	36.58	40.19	-1.33*	-3.61
6–9	19.57	22.64	20.10	-0.53*	2.54
10–13	21.64	14.22	20.69	0.95	-6.47
14 or more	19.59	26.09	18.67	0.92*	7.42
Unknown	‡	‡	‡	‡	‡
Total undergraduate enrollment <sup>4</sup>					
1–1,886	46.80	44.33	46.35	0.45	-2.02
1,887–3,428	19.20	23.53	19.61	-0.41	3.92
3,429–5,994	17.42	16.41	17.57	-0.15	-1.16
5,995 or more	16.58	15.73	16.47	0.11	-0.74
Total male undergraduate enrollment <sup>4</sup>					
1–687	47.87	47.15	47.41	0.46	-0.26
688–1,339	17.48	20.59	17.88	-0.40	2.71
1,340–2,720	16.66	16.35	16.81	-0.15	-0.46
2,721 or more	17.99	15.91	17.90	0.09	-1.99
Total female undergraduate enrollment <sup>4</sup>					
1–1,134	45.86	45.13	45.51	0.35	-0.38
1,135–1,970	20.37	22.92	20.62	-0.25	2.30
1,971–3,208	17.66	16.58	17.88	-0.22	-1.30
3,209 or more	16.10	15.37	15.99	0.11	-0.62
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–20	26.88	28.39	27.34	-0.46	1.05
21–33	17.86	29.75	18.21	-0.35	11.54
34–47	21.30	20.31	21.68	-0.38	-1.37
48 or more	19.48	17.85	19.77	-0.29	-1.92
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
1–8	28.96	37.59	29.62	-0.66	7.97
9–23	17.58	19.02	17.72	-0.14	1.30
24–42	22.84	23.14	23.09	-0.25	0.05
43 or more	16.14	16.56	16.57	-0.43	-0.01
None or unknown	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-21. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
1–74	19.42	33.77	19.73	-0.31	14.04
75–97	26.23	25.13	26.45	-0.22	-1.32
98–99	13.84	15.47	14.08	-0.24	1.39
100	26.03	21.94	26.74	-0.71*	-4.80
None or unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–50	26.81	37.80	27.08	-0.27	10.72
51–64	19.41	18.09	19.77	-0.36	-1.68
65–74	18.59	19.29	19.02	-0.43	0.27
75 or more	20.71	21.12	21.13	-0.42	-0.01
None or unknown	‡	‡	‡	‡	‡
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$19,539	18.00	25.23	18.41	-0.41	6.82
\$19,540–\$24,110	21.56	18.98	22.10	-0.54	-3.12
\$24,111–\$29,729	20.89	20.90	21.07	-0.18	-0.17
\$29,730 or more	25.07	31.01	25.42	-0.35	5.59
None or unknown	‡	‡	‡	‡	‡
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–87	22.81	35.89	23.03	-0.22	12.86
88–98	22.18	23.50	22.40	-0.22	1.10
99 or more	40.53	36.91	41.58	-1.05*	-4.67
None or unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–224	29.31	31.92	30.13	-0.82*	1.79
225–453	17.03	19.58	17.36	-0.33	2.22
454–790	17.02	18.21	17.30	-0.28	0.91
791 or more	16.10	14.15	16.00	0.10	-1.85
Unknown	20.54	16.15	19.21	1.33	-3.06
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–48	33.91	42.84	34.94	-1.03*	7.90
49–74	16.53	20.19	16.81	-0.28	3.38
75–132	18.24	16.74	18.38	-0.14	-1.64
133 or more	16.48	15.73	16.51	-0.03	-0.78
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-21. Undergraduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$15,552	22.62	27.99	23.15	-0.53	4.84
\$15,553–\$21,345	19.02	28.76	19.15	-0.13	9.61
\$21,346–\$26,822	17.20	18.87	17.56	-0.36	1.31
\$26,823 or more	26.68	20.51	27.15	-0.47	-6.64
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-22. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit less-than-2-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Degree of urbanization					
Large city	24.60	24.22	23.17	1.43	1.05
Midsized city	9.17	16.35	9.24	-0.07	7.11
Small city	13.51	9.16	13.68	-0.17	-4.52
Large suburb	44.30	43.87	45.39	-1.09	-1.52
Midsized suburb	2.24	1.31	2.26	-0.02	-0.95
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	5.02	5.49	5.08	-0.06	0.41
Mideast	27.53	20.23	27.66	-0.13	-7.43
Great Lakes	9.68	11.82	9.89	-0.21	1.93
Plains	‡	‡	‡	‡	‡
Southeast	30.08	27.60	31.32	-1.24	-3.72
Southwest	3.49	14.60	3.56	-0.07	11.04
Rocky Mountains	0.93	2.81	0.95	-0.02	1.86
Far West	16.40	12.69	14.79	1.61	-2.10
Outlying Areas	‡	‡	‡	‡	‡
Hispanic-Serving Institution					
Yes	21.48	31.42	22.49	-1.01	8.93
No	78.52	68.58	77.51	1.01	-8.93
Percentage of undergraduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–3	9.95	18.27	9.94	0.01	8.33
4–14	45.91	39.44	44.43	1.48	-4.99
15–39	16.63	12.45	16.93	-0.30	-4.48
40 or more	27.51	29.84	28.70	-1.19	1.14
Percentage of undergraduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0	50.66	43.18	50.84	-0.18	-7.66
1	8.41	16.95	8.54	-0.13	8.41
2	4.16	8.70	4.27	-0.11	4.43
3 or more	36.76	31.17	36.35	0.41	-5.18
Percentage of undergraduate students enrolled: Hispanic <sup>4</sup>					
0–2	27.52	20.58	27.46	0.06	-6.88
3–8	23.67	20.69	24.21	-0.54	-3.52
9–23	14.66	18.63	14.87	-0.21	3.76
24 or more	34.15	40.09	33.45	0.70	6.64

See notes at end of table.

**Table K-22. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total undergraduate enrollment <sup>4</sup>					
1–131	45.92	43.21	47.08	-1.16	-3.87
132–229	17.87	18.41	18.10	-0.23	0.31
230–402	22.64	26.65	21.15	1.49	5.50
403 or more	13.57	11.74	13.67	-0.10	-1.93
Total male undergraduate enrollment <sup>4</sup>					
1–7	48.37	47.02	49.65	-1.28	-2.63
8–23	29.00	25.26	27.63	1.37	-2.37
24–72	11.98	12.57	12.13	-0.15	0.44
73 or more	10.64	15.15	10.59	0.05	4.56
Total female undergraduate enrollment <sup>4</sup>					
1–91	30.18	23.94	31.22	-1.04	-7.28
92–178	34.82	37.95	35.09	-0.27	2.86
179–300	9.57	14.93	9.74	-0.17	5.19
301 or more	25.43	23.19	23.96	1.47	-0.77
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–56	44.93	35.33	43.39	1.54	-8.06
57–69	11.81	14.65	11.94	-0.13	2.71
70–81	21.07	16.13	21.41	-0.34	-5.28
82 or more	21.98	31.32	23.04	-1.06	8.28
None or unknown	0.22	2.58	0.22	#	2.36
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
0	84.96	82.54	84.97	-0.01	-2.43
1–2	2.93	4.15	3.00	-0.07	1.15
3 or more	11.89	10.73	11.81	0.08	-1.08
None or unknown	0.22	2.58	0.22	#	2.36
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
0	52.48	59.17	53.63	-1.15	5.54
1–13	34.71	23.20	33.43	1.28	-10.23*
14 or more	12.59	15.05	12.71	-0.12	2.34
None or unknown	0.22	2.58	0.22	#	2.36
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–54	32.10	22.28	30.49	1.61	-8.21
55–75	27.24	29.36	27.27	-0.03	2.09
76–86	16.31	23.81	16.65	-0.34	7.16
87 or more	24.14	21.97	25.37	-1.23	-3.40
None or unknown	0.22	2.58	0.22	#	2.36

See notes at end of table.

**Table K-22. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$12,198	59.80	45.13	59.13	0.67	-14.00*
\$12,199–\$15,916	16.59	25.04	16.88	-0.29	8.16
\$15,917–\$20,009	16.77	13.31	17.06	-0.29	-3.75
\$20,010 or more	6.62	13.80	6.70	-0.08	7.10*
None or unknown	0.22	2.72	0.22	#	2.50
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–61	47.64	38.71	46.06	1.58	-7.35
62–71	12.44	13.24	12.62	-0.18	0.62
72–84	15.46	14.71	15.73	-0.27	-1.02
85 or more	24.25	30.75	25.36	-1.11	5.39
None or unknown	0.22	2.58	0.22	#	2.36
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–12	16.17	16.11	16.36	-0.19	-0.25
13–27	28.58	25.28	29.83	-1.25	-4.55
28–61	31.42	34.89	31.65	-0.23	3.24
62 or more	10.95	11.83	10.98	-0.03	0.85
Unknown	12.88	11.88	11.18	1.70	0.70
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$4,015	49.11	52.77	48.47	0.64	4.30
\$4,016–\$4,511	10.71	11.60	10.91	-0.20	0.69
\$4,512–\$5,087	13.38	13.09	13.53	-0.15	-0.44
\$5,088 or more	26.58	19.82	26.87	-0.29	-7.05
Unknown	0.22	2.72	0.22	#	2.50

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-23. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit 2-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	31.07	52.64	30.62	0.45	22.02*
Research and doctoral	‡	‡	‡	‡	‡
Master's	‡	‡	‡	‡	‡
Baccalaureate	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡
Unavailable or unknown	68.93	46.09	69.38	-0.45	-23.29*
Degree of urbanization					
Large city	13.80	25.43	13.61	0.19	11.82*
Midsize city	16.77	12.42	16.77	#	-4.35
Small city	17.10	14.71	17.17	-0.07	-2.46
Large suburb	28.48	37.07	28.46	0.02	8.61
Midsize suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡
Urban area remote from town	5.57	2.99	5.53	0.04	-2.54
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	9.17	13.80	9.05	0.12	4.75
Great Lakes	10.53	14.69	10.66	-0.13	4.03
Plains	6.10	6.26	6.14	-0.04	0.12
Southeast	13.42	25.60	13.91	-0.49*	11.69*
Southwest	5.56	10.54	4.99	0.57	5.55
Rocky Mountains	46.49	7.47	46.57	-0.08	-39.10*
Far West	2.89	15.05	2.95	-0.06	12.10
Outlying Areas	‡	‡	‡	‡	‡
Hispanic-Serving Institution					
Yes	25.57	28.91	24.99	0.58	3.92
No	74.43	71.09	75.01	-0.58	-3.92
Percentage of undergraduate students enrolled:					
Black, non-Hispanic <sup>4</sup>					
0–3	47.61	19.16	47.69	-0.08	-28.53*
4–10	23.48	21.44	23.44	0.04	-2.00
11–44	18.07	35.80	17.89	0.18	17.91*
45 or more	10.84	23.60	10.97	-0.13	12.63*

See notes at end of table.

**Table K-23. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit 2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students enrolled:					
Asian or Pacific Islander <sup>4</sup>					
0	48.60	27.27	48.75	-0.15	-21.48*
1	14.68	17.69	14.82	-0.14	2.87
2–3	16.10	31.09	15.88	0.22	15.21*
4 or more	20.61	23.95	20.54	0.07	3.41
Percentage of undergraduate students enrolled:					
Hispanic <sup>4</sup>					
0–2	20.65	13.87	20.71	-0.06	-6.84
3–9	37.42	31.82	37.81	-0.39	-5.99
10–25	17.01	24.23	17.16	-0.15	7.07
26 or more	24.92	30.09	24.31	0.61	5.78
Total undergraduate enrollment <sup>4</sup>					
1–145	49.18	26.12	49.41	-0.23	-23.29*
146–515	18.93	24.12	19.22	-0.29	4.90
516–992	18.02	29.49	17.55	0.47	11.94
993 or more	13.87	20.27	13.83	0.04	6.44
Total male undergraduate enrollment <sup>4</sup>					
1–10	53.18	25.38	53.42	-0.24	-28.04*
11–79	12.68	19.31	12.77	-0.09	6.54
80–213	13.74	22.72	13.90	-0.16	8.82
214 or more	20.40	32.59	19.91	0.49	12.68
Total female undergraduate enrollment <sup>4</sup>					
1–93	40.01	20.09	39.91	0.10	-19.82
94–288	24.52	27.65	24.89	-0.37	2.76
289–596	24.17	36.06	23.79	0.38	12.27
597 or more	11.29	16.20	11.42	-0.13	4.78
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–52	38.89	30.16	39.18	-0.29	-9.02
53–69	15.87	18.58	15.53	0.34	3.05
70–81	19.88	20.70	19.80	0.08	0.90
82 or more	25.24	15.23	25.36	-0.12	-10.13
None or unknown	0.12	15.33	0.12	#	15.21*
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
0	71.33	45.23	71.68	-0.35	-26.45*
1–4	13.44	11.72	13.25	0.19	-1.53
5 or more	15.11	27.73	14.95	0.16	12.78*
None or unknown	0.12	15.33	0.12	#	15.21*

See notes at end of table.

**Table K-23. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit 2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
0	61.77	34.88	62.17	-0.40	-27.29*
1–16	20.28	13.52	20.40	-0.12	-6.88
17 or more	17.82	36.27	17.30	0.52	18.97*
None or unknown	0.12	15.33	0.12	#	15.21*
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–63	25.91	23.32	25.84	0.07	-2.52
64–75	38.56	28.72	38.15	0.41	-9.43
76–85	8.62	16.58	8.90	-0.28	7.68
86 or more	26.78	16.05	27.00	-0.22	-10.95
None or unknown	0.12	15.33	0.12	#	15.21*
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$13,000	50.16	25.14	50.34	-0.18	-25.20*
\$13,001–\$17,580	9.48	18.58	9.14	0.34	9.44
\$17,581–\$21,282	20.85	24.88	20.55	0.30	4.33
\$21,283 or more	16.53	13.24	16.92	-0.39	-3.68
None or unknown	2.98	18.16	3.05	-0.07	15.11*
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–57	37.47	25.38	37.75	-0.28	-12.37
58–73	14.14	22.09	14.21	-0.07	7.88
74–85	20.56	18.36	20.10	0.46	-1.74
86 or more	27.71	18.83	27.82	-0.11	-8.99
None or unknown	0.12	15.33	0.12	#	15.21*
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–8	‡	‡	‡	‡	‡
9–25	‡	‡	‡	‡	‡
26–87	‡	‡	‡	‡	‡
88 or more	‡	‡	‡	‡	‡
Unknown	96.81	94.99	96.84	-0.03	-1.85
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–15	32.34	31.19	32.70	-0.36	-1.51
16–33	34.37	16.15	34.48	-0.11	-18.33
34–90	20.48	21.04	20.02	0.46	1.02
91 or more	9.83	13.47	9.75	0.08	3.72
Unknown	2.98	18.16	3.05	-0.07	15.11*

See notes at end of table.



**Table K-23. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit 2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$4,092	20.14	15.86	20.22	-0.08	-4.36
\$4,093–\$4,862	23.32	8.77	23.45	-0.13	-14.68
\$4,863–\$5,519	19.45	29.53	19.52	-0.07	10.01
\$5,520 or more	34.11	27.68	33.75	0.36	-6.07
Unknown	2.98	18.16	3.05	-0.07	15.11*

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .

<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.

<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-24. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit 4-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	7.86	9.92	8.20	-0.34	1.72
Research and doctoral	‡	‡	‡	‡	‡
Master's	8.18	12.53	8.44	-0.26	4.09
Baccalaureate	15.12	19.74	15.64	-0.52	4.10
Special focus and other	28.81	24.19	29.72	-0.91	-5.53
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	36.10	35.85	34.07	2.03	1.78
Midsized city	16.03	23.41	16.63	-0.60	6.78
Small city	15.24	10.38	15.54	-0.30	-5.16
Large suburb	27.51	25.00	28.68	-1.17*	-3.68
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	3.50	7.73	3.55	-0.05	4.18
Great Lakes	13.87	11.23	14.18	-0.31	-2.95
Plains	17.49	10.28	18.18	-0.69	-7.90
Southeast	26.65	22.70	28.11	-1.46*	-5.41
Southwest	22.69	13.49	20.42	2.27	-6.93
Rocky Mountains	3.23	6.29	3.27	-0.04	3.02
Far West	4.32	19.09	4.27	0.05	14.82
Outlying Areas	‡	‡	‡	‡	‡
Hispanic-Serving Institution					
Yes	12.48	29.72	12.55	-0.07	17.17*
No	87.52	70.28	87.45	0.07	-17.17*
Percentage of undergraduate students enrolled:					
Black, non-Hispanic <sup>4</sup>					
0–8	23.40	34.90	23.89	-0.49	11.01
9–18	15.93	15.22	16.26	-0.33	-1.04
19–35	27.68	25.36	28.78	-1.10*	-3.42
36 or more	32.34	23.90	30.45	1.89	-6.55
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-24. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit 4-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students enrolled:					
Asian or Pacific Islander <sup>4</sup>					
0–1	59.39	41.13	58.29	1.10	-17.16*
2	10.65	13.25	10.86	-0.21	2.39
3–4	13.11	13.78	13.40	-0.29	0.38
5 or more	16.21	31.22	16.82	-0.61	14.40
Unknown	‡	‡	‡	‡	‡
Percentage of undergraduate students enrolled:					
Hispanic <sup>4</sup>					
0–5	26.87	23.13	27.81	-0.94	-4.68
6–9	22.82	13.94	23.62	-0.80	-9.68
10–16	29.80	23.03	27.61	2.19	-4.58
17 or more	19.86	39.28	20.34	-0.48	18.94*
Unknown	‡	‡	‡	‡	‡
Total undergraduate enrollment <sup>4</sup>					
1–390	62.02	33.78	61.18	0.84	-27.40*
391–936	18.88	32.36	19.19	-0.31	13.17
937–3,535	12.23	21.17	12.78	-0.55	8.39
3,536 or more	6.86	12.69	6.85	0.01	5.84
Total male undergraduate enrollment <sup>4</sup>					
1–95	56.92	30.78	55.86	1.06	-25.08*
96–263	22.22	35.59	22.63	-0.41	12.96
264–877	14.01	23.66	14.64	-0.63	9.02
878 or more	6.85	9.97	6.87	-0.02	3.10
Total female undergraduate enrollment <sup>4</sup>					
1–251	53.18	29.58	52.15	1.03	-22.57*
252–582	27.69	36.42	28.17	-0.48	8.25
583–2,571	12.69	21.20	13.18	-0.49	8.02
2,572 or more	6.43	12.80	6.50	-0.07	6.30
Percentage of undergraduate students receiving federal grant aid <sup>4</sup>					
1–50	20.35	26.63	21.04	-0.69	5.59
51–67	8.24	9.66	8.54	-0.30	1.12
68–82	6.54	13.16	6.75	-0.21	6.41
83 or more	10.96	17.28	10.88	0.08	6.40
None or unknown	53.90	33.27	52.79	1.11	-19.52*
Percentage of undergraduate students receiving state/local grant aid <sup>4</sup>					
0	35.04	32.69	35.93	-0.89	-3.24
1–10	4.80	20.73	4.77	0.03	15.96
11 or more	6.26	13.30	6.51	-0.25	6.79
None or unknown	53.90	33.27	52.79	1.11	-19.52*

See notes at end of table.

**Table K-24. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit 4-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of undergraduate students receiving institution grant aid <sup>4</sup>					
0	21.30	30.56	21.90	-0.60	8.66
1–18	6.64	13.87	6.82	-0.18	7.05
19–61	8.66	10.65	8.89	-0.23	1.76
62 or more	9.50	11.65	9.60	-0.10	2.05
None or unknown	53.90	33.27	52.79	1.11	-19.52*
Percentage of undergraduate students receiving student loan aid <sup>4</sup>					
1–53	14.83	17.69	14.94	-0.11	2.75
54–75	10.83	20.61	11.24	-0.41	9.37
76–89	4.31	12.22	4.49	-0.18	7.73*
90 or more	16.13	16.21	16.53	-0.40	-0.32
None or unknown	53.90	33.27	52.79	1.11	-19.52*
Average net price among students receiving grant or scholarship aid <sup>4</sup>					
\$1–\$15,952	11.11	15.99	10.87	0.24	5.12
\$15,953–\$19,911	6.78	19.65	6.98	-0.20	12.67
\$19,912–\$24,446	10.02	11.50	10.47	-0.45	1.03
\$24,447 or more	4.91	13.96	5.18	-0.27	8.78*
None or unknown	67.18	38.90	66.49	0.69	-27.59*
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>4</sup>					
1–60	23.51	26.98	24.41	-0.90	2.57
61–86	5.35	18.37	5.44	-0.09	12.93*
87–95	9.06	10.75	9.13	-0.07	1.62
96 or more	8.18	10.62	8.22	-0.04	2.40
None or unknown	53.90	33.27	52.79	1.11	-19.52*
Number of full-time, first-time undergraduate students living on campus <sup>4</sup>					
0–11	‡	‡	‡	‡	‡
12–97	‡	‡	‡	‡	‡
98–139	‡	‡	‡	‡	‡
140 or more	‡	‡	‡	‡	‡
Unknown	98.86	96.59	98.82	0.04	-2.23
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>4</sup>					
0–4	19.90	14.79	20.50	-0.60	-5.71
5–19	3.29	18.77	3.40	-0.11	15.37
20–91	12.07	15.46	12.03	0.04	3.43
92 or more	8.53	15.29	8.81	-0.28	6.48
Unknown	56.20	35.69	55.25	0.95	-19.56*

See notes at end of table.

**Table K-24. Undergraduate institution-level differences between means before and after poststratification for select variables for private for-profit 4-year institutions: 2017–18**  
**—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>4</sup>					
\$0–\$4,597	13.02	11.37	13.43	-0.41	-2.06
\$4,598–\$5,571	6.04	16.60	5.97	0.07	10.63*
\$5,572–\$7,199	8.45	12.02	8.57	-0.12	3.45
\$7,200 or more	5.31	21.12	5.54	-0.23	15.58
Unknown	67.18	38.90	66.49	0.69	-27.59*

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the institution base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-25. Graduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Control and level of institution			(Effect size = ‡)				(Effect size = ‡)		
Public 4-year, non-doctorate-granting, primarily subbaccalaureate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year, non-doctorate-granting, primarily baccalaureate	150	40	8.45	8.91	0.46	5.42	8.21	-0.25	-2.92
Public 4-year, doctorate-granting	330	50	17.14	20.02	2.89*	16.84	15.86	-1.28	-7.47
Private nonprofit 4-year, non-doctorate-granting	200	70	32.00	34.35	2.36	7.36	36.93	4.94	15.43
Private nonprofit 4-year, doctorate-granting	270	80	32.73	28.46	-4.27	-13.04	27.16	-5.57	-17.02
Private for-profit 4-year	60	50	8.22	6.42	-1.80*	-21.90	10.35	2.13	25.92
Carnegie Classification 2015: Basic			(Effect size = ‡)				(Effect size = ‡)		
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	260	50	15.03	17.25	2.22*	14.75	13.96	-1.07	-7.13
Master's	460	130	34.52	33.68	-0.84	-2.44	31.66	-2.86	-8.29
Baccalaureate	160	60	16.67	16.39	-0.28	-1.68	20.74	4.07	24.42
Special focus and other	120	40	30.56	29.68	-0.88	-2.89	30.91	0.35	1.15
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization			(Effect size = ‡)				(Effect size = ‡)		
Large city	260	60	26.55	23.05	-3.51	-13.20	23.01	-3.54	-13.34
Midsized city	140	50	11.10	11.58	0.49	4.38	10.93	-0.17	-1.52
Small city	150	30	11.55	12.75	1.20	10.40	12.26	0.71	6.18
Large suburb	170	60	26.94	29.94	3.00	11.14	28.28	1.35	5.00
Midsized suburb	40	10	2.62	2.72	0.10	3.69	2.67	0.05	1.85
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	40	10	2.51	2.88	0.37	14.94	2.20	-0.31	-12.47
Urban area distant from town	90	30	5.79	6.05	0.26	4.53	6.59	0.80	13.79
Urban area remote from town	70	20	3.91	3.98	0.07	1.66	3.79	-0.12	-3.03
Rural area on fringe of town	30	10	5.77	3.77	-2.00	-34.66	7.19	1.41	24.47
Rural area distant from town	10	10	0.94	0.83	-0.11	-11.57	1.10	0.16	17.55
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-25. Graduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = 0.07)			(Effect size = 0.16)	
New England	90	20	6.86	7.55	0.70	10.15	6.10	-0.76	-11.07
Mideast	150	40	23.93	24.09	0.16	0.66	22.62	-1.32	-5.50
Great Lakes	150	40	14.63	14.04	-0.59	-4.02	12.07	-2.56	-17.51
Plains	120	30	8.83	9.83	0.99	11.26	10.09	1.26	14.22
Southeast	250	80	22.32	22.55	0.23	1.04	21.97	-0.35	-1.57
Southwest	90	30	6.91	7.17	0.27	3.86	5.88	-1.03*	-14.94
Rocky Mountains	40	10	2.75	2.77	0.03	0.92	2.72	-0.03	-0.96
Far West	110	20	12.33	10.37	-1.96	-15.91	16.44	4.11	33.33
Outlying Areas	20	10	1.44	1.62	0.18	12.21	2.12	0.68	47.18
Historically Black College or University					(Effect size = 0.01)			(Effect size = #)	
Yes	30	10	2.09	1.99	-0.09	-4.47	2.08	#	-0.21
No or unavailable or unknown	990	270	97.91	98.01	0.09	0.10	97.92	#	#
Hispanic-Serving Institution					(Effect size = 0.04)			(Effect size = 0.03)	
Yes	120	30	9.03	10.11	1.08	11.98	9.99	0.96	10.64
No	910	250	90.97	89.89	-1.08	-1.19	90.01	-0.96	-1.06
Percentage of graduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = 0.07)			(Effect size = 0.09)	
0–3	300	80	39.11	38.27	-0.84	-2.14	39.95	0.85	2.16
4–7	270	50	21.73	24.27	2.54	11.71	21.94	0.22	0.99
8–14	200	60	16.30	16.22	-0.09	-0.53	16.17	-0.14	-0.85
15 or more	230	80	21.13	19.23	-1.90	-8.98	19.16	-1.97	-9.31
Unknown	30	10	1.73	2.00	0.28	15.92	2.77	1.05	60.47
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>6</sup>					(Effect size = 0.10)			(Effect size = 0.12)	
0–1	280	100	28.98	28.16	-0.82	-2.82	32.54	3.56	12.29
2–3	270	90	28.94	31.80	2.86	9.89	27.91	-1.02	-3.53
4–6	230	40	17.67	18.84	1.16	6.59	15.07	-2.60	-14.74
7 or more	210	50	22.69	19.20	-3.48	-15.35	21.70	-0.98	-4.33
Unknown	30	10	1.73	2.00	0.28	15.92	2.77	1.05	60.47

See notes at end of table.

**Table K-25. Graduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of graduate students enrolled: Hispanic <sup>5</sup>					(Effect size = 0.06)			(Effect size = 0.10)	
0–2	240	80	35.38	34.20	-1.18	-3.34	36.36	0.98	2.78
3–4	260	50	21.92	22.42	0.50	2.29	19.16	-2.75	-12.57
5–9	270	80	22.39	21.16	-1.24	-5.52	23.18	0.78	3.50
10 or more	220	60	18.58	20.22	1.64	8.83	18.52	-0.06	-0.32
Unknown	30	10	1.73	2.00	0.28	15.92	2.77	1.05	60.47
Total graduate enrollment <sup>5</sup>					(Effect size = 0.06)			(Effect size = 0.09)	
1–309	240	90	42.32	39.75	-2.57	-6.06	46.72	4.40	10.40
310–1,085	260	70	23.37	23.91	0.55	2.35	21.54	-1.83	-7.82
1,086–3,047	250	80	18.43	18.47	0.04	0.20	17.07	-1.35	-7.35
3,048 or more	280	50	15.89	17.87	1.98	12.46	14.67	-1.22	-7.69
Total male graduate enrollment <sup>5</sup>					(Effect size = 0.06)			(Effect size = 0.09)	
1–97	240	80	41.81	40.62	-1.19	-2.84	46.17	4.35	10.41
98–356	250	70	24.07	23.18	-0.88	-3.67	22.31	-1.75	-7.29
357–1,180	250	80	18.07	18.18	0.11	0.60	16.74	-1.33	-7.35
1,181 or more	280	50	16.05	18.01	1.96	12.23	14.78	-1.27	-7.91
Total female graduate enrollment <sup>5</sup>					(Effect size = 0.06)			(Effect size = 0.09)	
1–184	240	90	43.21	41.03	-2.18	-5.05	47.74	4.53	10.48
185–684	260	70	21.95	21.91	-0.04	-0.19	20.27	-1.68	-7.63
685–1,869	250	70	19.00	19.42	0.41	2.16	17.36	-1.65	-8.67
1,870 or more	270	50	15.84	17.65	1.81	11.45	14.63	-1.20	-7.61

See notes at end of table.



**Table K-25. Graduate institution-level nonresponse bias analysis for select variables for all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>5</sup>					(Effect size = 0.09)			(Effect size = 0.25)	
0–32	230	100	44.06	43.70	-0.36	-0.82	44.96	0.90	2.05
33–82	250	60	22.32	19.72	-2.60	-11.65	20.81	-1.50	-6.74
83–206	260	60	16.89	18.10	1.21	7.16	15.47	-1.42	-8.41
207 or more	270	40	14.97	17.17	2.20*	14.71	13.76	-1.21	-8.10
Unknown	10	20	1.76	1.31	-0.45*	-25.60	5.00	3.24	183.60

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-26. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Baccalaureate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Midsize city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Large suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-26. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No or unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Hispanic-Serving Institution					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
1–3	‡	‡	‡	‡	‡	‡	‡	‡	‡
4–9	‡	‡	‡	‡	‡	‡	‡	‡	‡
10 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
1–5	‡	‡	‡	‡	‡	‡	‡	‡	‡
6 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
1–5	‡	‡	‡	‡	‡	‡	‡	‡	‡
6 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total graduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1	‡	‡	‡	‡	‡	‡	‡	‡	‡
2–5	‡	‡	‡	‡	‡	‡	‡	‡	‡
6–31	‡	‡	‡	‡	‡	‡	‡	‡	‡
32 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-26. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total male graduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1	‡	‡	‡	‡	‡	‡	‡	‡	‡
2–7	‡	‡	‡	‡	‡	‡	‡	‡	‡
8 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total female graduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1	‡	‡	‡	‡	‡	‡	‡	‡	‡
2–24	‡	‡	‡	‡	‡	‡	‡	‡	‡
25 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total office and administrative support employees <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–13	‡	‡	‡	‡	‡	‡	‡	‡	‡
14–26	‡	‡	‡	‡	‡	‡	‡	‡	‡
27–116	‡	‡	‡	‡	‡	‡	‡	‡	‡
117 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than five nonrespondents).

<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-27. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic			(Effect size = ‡)				(Effect size = ‡)		
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	100	30	66.49	65.75	-0.73	-1.10	63.51	-2.97	-4.47
Baccalaureate	40	10	27.03	28.77	1.74	6.44	31.16	4.14*	15.31
Special focus and other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization			(Effect size = ‡)				(Effect size = ‡)		
Large city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Midsize city	10	10	9.19	7.53	-1.65	-18.01	7.66	-1.53	-16.66
Small city	‡	‡	‡	‡	‡	‡	‡	‡	‡
Large suburb	20	10	15.14	15.75	0.62	4.09	16.22	1.08	7.16
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	20	10	14.59	13.70	-0.90	-6.14	13.58	-1.02	-6.98
Urban area remote from town	20	10	15.68	13.70	-1.98	-12.61	14.26	-1.42	-9.05
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>			(Effect size = ‡)				(Effect size = ‡)		
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	30	10	21.62	23.29	1.67	7.71	26.10	4.48*	20.72
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	10	10	10.27	8.22	-2.05	-19.97	9.21	-1.06	-10.31
Southeast	30	10	22.16	23.29	1.13	5.08	22.10	-0.06	-0.27
Southwest	20	10	10.81	10.27	-0.54	-4.97	9.08	-1.73	-16.01
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	10	10	9.73	8.22	-1.51	-15.53	8.73	-1.00	-10.23
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-27. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No or unavailable or unknown	140	40	94.05	93.84	-0.22	-0.23	92.84	-1.21	-1.29
Hispanic-Serving Institution					(Effect size = 0.05)			(Effect size = 0.07)	
Yes	20	10	13.51	11.64	-1.87	-13.84	10.98	-2.54	-18.78
No	130	30	86.49	88.36	1.87	2.16	89.02	2.54	2.93
Percentage of graduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	40	20	29.19	24.66	-4.53*	-15.53	26.77	-2.41	-8.27
3–4	30	10	18.38	19.18	0.80	4.35	17.61	-0.77	-4.20
5–12	40	10	24.86	24.66	-0.21	-0.83	24.18	-0.69	-2.77
13 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	30	10	23.78	20.55	-3.24	-13.61	22.47	-1.31	-5.52
1–2	60	10	37.30	38.36	1.06	2.84	38.11	0.81	2.17
3	‡	‡	‡	‡	‡	‡	‡	‡	‡
4 or more	40	10	22.70	23.97	1.27	5.59	21.76	-0.94	-4.14
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	40	10	28.11	29.45	1.34	4.78	30.35	2.24	7.97
3–4	30	10	22.70	22.60	-0.10	-0.44	20.25	-2.45	-10.79
5–10	30	10	22.16	21.92	-0.24	-1.10	23.63	1.47	6.62
11 or more	30	10	21.62	19.86	-1.76	-8.13	17.89	-3.73*	-17.26
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-27. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total graduate enrollment <sup>5</sup>					(Effect size = 0.01)			(Effect size = 0.07)	
1–180	40	10	25.41	25.34	-0.06	-0.25	27.77	2.36	9.31
181–522	40	10	24.86	25.34	0.48	1.92	26.07	1.20	4.84
523–1,155	40	10	24.86	24.66	-0.21	-0.83	22.57	-2.29	-9.23
1,156 or more	40	10	24.86	24.66	-0.21	-0.83	23.59	-1.27	-5.13
Total male graduate enrollment <sup>5</sup>					(Effect size = 0.02)			(Effect size = 0.08)	
1–61	40	10	25.41	26.03	0.62	2.45	28.13	2.72	10.72
62–144	40	10	24.86	25.34	0.48	1.92	25.85	0.99	3.97
145–358	40	10	24.86	23.97	-0.89	-3.59	22.34	-2.52	-10.15
359 or more	40	10	24.86	24.66	-0.21	-0.83	23.68	-1.19	-4.77
Total female graduate enrollment <sup>5</sup>					(Effect size = 0.08)			(Effect size = 0.11)	
1–103	40	10	25.41	24.66	-0.75	-2.94	27.56	2.15	8.46
104–368	40	10	24.86	28.08	3.22*	12.94	28.18	3.32*	13.34
369–696	30	10	24.86	23.29	-1.58	-6.34	21.35	-3.51*	-14.12
697 or more	40	10	24.86	23.97	-0.89	-3.59	22.91	-1.96	-7.86

See notes at end of table.

**Table K-27. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–42	30	20	25.95	21.92	-4.03*	-15.53	22.96	-2.99	-11.51
43–70	40	10	25.41	28.08	2.68	10.54	27.92	2.51	9.89
71–119	40	10	23.24	23.97	0.73	3.14	23.13	-0.12	-0.51
120 or more	40	10	24.32	24.66	0.33	1.37	23.76	-0.57	-2.33
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table K-28. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	170	20	51.73	52.44	0.71	1.36	51.34	-0.40	-0.77
Master's	120	20	38.13	37.50	-0.63	-1.66	37.99	-0.15	-0.38
Baccalaureate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	90	10	26.13	26.22	0.09	0.33	27.70	1.57	6.00
Midsize city	60	10	17.33	16.77	-0.57	-3.26	16.11	-1.22	-7.06
Small city	60	10	18.40	18.90	0.50	2.73	18.22	-0.18	-0.97
Large suburb	40	10	11.47	11.28	-0.19	-1.62	12.15	0.68	5.97
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	20	10	7.73	7.32	-0.42	-5.38	7.26	-0.47	-6.07
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	50	10	15.47	15.85	0.39	2.50	17.14	1.67*	10.83
Great Lakes	50	10	13.87	14.02	0.16	1.14	13.17	-0.70	-5.06
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	90	20	28.00	26.83	-1.17	-4.18	26.43	-1.57	-5.59
Southwest	50	10	13.87	14.02	0.16	1.14	13.40	-0.47	-3.38
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	40	10	10.67	10.67	#	0.04	11.47	0.80	7.54
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-28. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = 0.06)			(Effect size = 0.03)	
Yes	20	10	6.40	4.88	-1.52*	-23.78	5.75	-0.65	-10.21
No or unavailable or unknown	310	40	93.60	95.12	1.52*	1.63	94.25	0.65	0.70
Hispanic-Serving Institution					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	270	40	83.73	82.62	-1.11	-1.33	82.48	-1.25*	-1.49
Percentage of graduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–3	80	10	25.87	25.61	-0.26	-0.99	26.10	0.23	0.90
4–6	90	10	26.67	27.13	0.47	1.75	26.15	-0.52	-1.94
7–12	80	10	23.73	25.00	1.27	5.34	24.57	0.84	3.53
13 or more	70	20	23.47	21.95	-1.52	-6.46	22.69	-0.78	-3.32
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	110	20	34.93	33.84	-1.09	-3.13	34.14	-0.80	-2.28
3–4	70	10	22.40	21.95	-0.45	-2.00	21.27	-1.13	-5.03
5–7	70	10	21.60	22.56	0.96	4.45	21.87	0.27	1.24
8 or more	70	10	20.80	21.34	0.54	2.60	22.23	1.43	6.86
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–3	100	20	33.33	31.71	-1.63	-4.88	31.15	-2.19*	-6.56
4–5	90	10	26.13	25.91	-0.22	-0.84	25.40	-0.74	-2.82
6–9	60	10	16.27	16.77	0.50	3.08	17.65	1.39	8.52
10 or more	80	10	24.00	25.30	1.30	5.44	25.31	1.31	5.46
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-28. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total graduate enrollment <sup>5</sup>					(Effect size = 0.01)			(Effect size = 0.03)	
1–1,467	80	10	25.07	25.30	0.24	0.95	26.28	1.22	4.85
1,468–3,081	80	10	25.07	24.70	-0.37	-1.48	24.74	-0.32	-1.29
3,082–6,348	80	10	25.07	25.30	0.24	0.95	24.89	-0.17	-0.70
6,349 or more	80	10	24.80	24.70	-0.10	-0.42	24.08	-0.72	-2.90
Total male graduate enrollment <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.05)	
1–517	80	10	25.07	25.61	0.54	2.17	26.57	1.50	6.00
518–1,181	80	20	25.07	23.48	-1.59	-6.35	23.39	-1.68	-6.71
1,182–2,528	80	10	25.07	25.61	0.54	2.17	25.34	0.27	1.08
2,529 or more	80	10	24.80	25.30	0.50	2.04	24.71	-0.09	-0.38
Total female graduate enrollment <sup>5</sup>					(Effect size = #)			(Effect size = 0.02)	
1–958	80	10	25.07	25.00	-0.07	-0.27	26.04	0.97	3.87
959–1,904	80	10	25.07	25.00	-0.07	-0.27	24.96	-0.10	-0.41
1,905–3,531	80	10	25.07	25.00	-0.07	-0.27	24.67	-0.40	-1.59
3,532 or more	80	10	24.80	25.00	0.20	0.81	24.33	-0.47	-1.89

See notes at end of table.

**Table K-28. Graduate institution-level nonresponse bias analysis for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–140	80	10	25.07	25.00	-0.07	-0.27	26.00	0.93	3.72
141–249	90	10	25.33	26.52	1.19	4.70	26.68	1.35	5.33
250–532	80	20	24.53	23.48	-1.06	-4.31	22.79	-1.74	-7.09
533 or more	80	10	24.80	24.70	-0.10	-0.42	24.03	-0.77	-3.11
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-29. Graduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic			(Effect size = ‡)				(Effect size = ‡)		
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	90	20	26.73	22.91	-3.82	-14.28	21.56	-5.17	-19.34
Baccalaureate	80	30	33.62	29.53	-4.09	-12.16	37.75	4.13	12.28
Special focus and other	30	10	37.13	44.6	7.47*	20.11	37.4	0.27	0.72
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization			(Effect size = ‡)				(Effect size = ‡)		
Large city	40	10	13.08	15.26	2.17	16.62	10.92	-2.16	-16.51
Midsize city	20	10	7.7	7.37	-0.33	-4.27	9.24	1.54	20.07
Small city	30	10	7.53	7.85	0.32	4.24	9.45	1.92	25.48
Large suburb	30	10	40.19	47.36	7.18*	17.86	36.3	-3.89	-9.68
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	20	10	6.7	5.97	-0.73	-10.92	8.23	1.53	22.82
Urban area remote from town	10	10	2.22	1.63	-0.59	-26.68	2.39	0.17	7.54
Rural area on fringe of town	10	10	13.17	5.6	-7.57	-57.44	14.57	1.4	10.64
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>			(Effect size = ‡)				(Effect size = ‡)		
New England	30	10	8.51	8.63	0.12	1.44	6.88	-1.63	-19.11
Mideast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	30	10	14.84	10.25	-4.59	-30.93	8.35	-6.49	-43.76
Plains	40	10	8.69	8.35	-0.35	-4	10.71	2.02	23.18
Southeast	50	20	16.2	15.71	-0.49	-3	17.78	1.58	9.78
Southwest	10	10	4.85	5.15	0.3	6.09	4.19	-0.66	-13.66
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-29. Graduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No or unavailable or unknown	190	60	99.57	99.82	0.25	0.25	99.71	0.14	0.14
Hispanic-Serving Institution					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	180	60	92.91	91.75	-1.16	-1.25	92.76	-0.15	-0.16
Percentage of graduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	60	20	22.88	20.21	-2.66	-11.64	29.54	6.66	29.13
3–6	40	10	38.81	46.33	7.52*	19.37	38.36	-0.45	-1.16
7–15	50	20	18.32	17.07	-1.25	-6.84	16.38	-1.94	-10.58
16 or more	40	10	18.84	15.31	-3.53	-18.72	14.03	-4.81	-25.51
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	60	30	27.79	27.76	-0.03	-0.1	35.49	7.69	27.68
1–2	60	10	14.74	15.57	0.84	5.68	15.98	1.24	8.42
3	20	10	34.36	40.29	5.94	17.28	32.37	-1.99	-5.79
4 or more	50	10	21.96	15.29	-6.67	-30.38	14.49	-7.47	-34.03
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–1	50	20	52.69	54.59	1.9	3.61	56.55	3.86	7.33
2–4	60	20	17.33	18.1	0.78	4.47	16.53	-0.8	-4.59
5–7	30	10	9.25	8.81	-0.44	-4.75	8.43	-0.81	-8.78
8 or more	50	20	19.59	17.43	-2.16	-11.04	16.81	-2.78	-14.2
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-29. Graduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total graduate enrollment <sup>5</sup>					(Effect size = 0.02)			(Effect size = 0.20)	
1–71	40	20	23.8	23.31	-0.48	-2.03	32.23	8.44	35.45
72–209	50	20	45.5	46.59	1.09	2.39	39.85	-5.65	-12.42
210–583	60	10	17.84	17.3	-0.54	-3.03	16	-1.85	-10.35
584 or more	50	10	12.86	12.8	-0.07	-0.51	11.93	-0.94	-7.29
Total male graduate enrollment <sup>5</sup>					(Effect size = 0.10)			(Effect size = 0.22)	
1–26	50	20	24.96	25.22	0.26	1.05	33.63	8.67	34.74
27–75	40	20	44.63	45.2	0.57	1.28	38.58	-6.05	-13.56
76–183	60	10	15.34	17.51	2.17	14.14	16.48	1.14	7.43
184 or more	50	10	15.08	12.08	-3	-19.89	11.32	-3.76	-24.92
Total female graduate enrollment <sup>5</sup>					(Effect size = 0.03)			(Effect size = 0.22)	
1–41	40	20	23.75	23.57	-0.18	-0.75	32.96	9.21	38.78
42–142	40	20	44.62	45.43	0.81	1.81	38.42	-6.2	-13.9
143–356	50	10	18.65	17.48	-1.17	-6.26	15.68	-2.97	-15.91
357 or more	50	10	12.98	13.52	0.54	4.14	12.94	-0.04	-0.33

See notes at end of table.

**Table K-29. Graduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–15	40	20	53.56	55.15	1.59	2.97	53.43	-0.13	-0.24
16–30	50	10	18.36	19.45	1.09	5.91	20.62	2.26	12.3
31–56	50	10	15.56	12.97	-2.59	-16.64	13.26	-2.3	-14.77
57 or more	50	20	11.8	11.89	0.09	0.78	11.25	-0.56	-4.71
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table K-30. Graduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	80	20	14.99	18.67	3.69	24.59	16.89	1.90	12.68
Master's	130	40	33.94	36.30	2.36	6.95	35.46	1.52	4.49
Baccalaureate	20	10	5.23	6.68	1.45	27.70	6.94	1.71	32.74
Special focus and other	40	20	45.30	38.14	-7.17	-15.82	40.48	-4.83	-10.66
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	100	20	42.02	34.30	-7.72	-18.37	35.59	-6.42	-15.29
Midsized city	40	10	11.24	14.15	2.90	25.81	12.08	0.84	7.48
Small city	30	10	12.82	15.55	2.73	21.32	14.96	2.14	16.69
Large suburb	50	30	23.29	23.37	0.08	0.35	24.96	1.66	7.15
Midsized suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	30	10	7.05	8.83	1.78	25.26	7.34	0.29	4.09
Mideast	40	20	25.50	17.86	-7.65	-29.98	19.42	-6.08	-23.84
Great Lakes	50	10	15.50	19.84	4.34	28.00	18.99	3.49	22.49
Plains	40	10	9.49	13.41	3.93*	41.42	12.60	3.11	32.82
Southeast	60	20	19.95	20.97	1.02	5.09	20.99	1.04	5.20
Southwest	10	10	4.05	4.63	0.57	14.14	4.09	0.04	0.95
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	30	10	16.88	12.68	-4.19	-24.85	14.81	-2.07	-12.25
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-30. Graduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Historically Black College or University					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No or unavailable or unknown	260	80	99.07	98.79	-0.28	-0.29	98.48	-0.59	-0.59
Hispanic-Serving Institution					(Effect size = 0.03)			(Effect size = 0.03)	
Yes	20	10	5.31	6.04	0.74	13.87	5.97	0.66	12.41
No	250	70	94.69	93.96	-0.74	-0.78	94.03	-0.66	-0.70
Percentage of graduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–4	90	20	41.00	34.61	-6.39	-15.60	34.94	-6.06	-14.77
5–7	70	20	24.37	30.14	5.77	23.69	29.56	5.20	21.32
8–12	50	20	16.47	16.34	-0.12	-0.75	17.26	0.80	4.83
13 or more	60	20	18.03	18.91	0.88	4.90	18.23	0.21	1.14
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	80	30	34.19	29.69	-4.50	-13.16	31.48	-2.71	-7.92
3–4	70	20	15.09	18.37	3.28	21.73	16.51	1.42	9.41
5–7	50	10	14.05	18.98	4.93*	35.06	15.93	1.88	13.36
8 or more	70	20	36.53	32.96	-3.57	-9.76	36.08	-0.45	-1.24
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–3	100	30	48.34	41.14	-7.19	-14.88	41.39	-6.95	-14.37
4–5	50	20	14.29	16.00	1.71	11.99	15.60	1.32	9.21
6–8	60	20	20.66	22.80	2.14	10.33	23.77	3.10	15.01
9 or more	60	20	16.57	20.06	3.48	21.02	19.24	2.67	16.11
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-30. Graduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total graduate enrollment <sup>5</sup>					(Effect size = 0.16)			(Effect size = 0.11)	
1–788	70	20	48.79	41.88	-6.91	-14.16	44.13	-4.66	-9.56
789–1,702	60	20	20.94	22.39	1.44	6.89	22.76	1.82	8.67
1,703–3,581	60	30	16.48	17.59	1.10	6.69	16.51	0.03	0.17
3,582 or more	70	10	13.78	18.14	4.36*	31.66	16.60	2.82	20.45
Total male graduate enrollment <sup>5</sup>					(Effect size = 0.20)			(Effect size = 0.14)	
1–259	70	20	46.37	36.66	-9.71	-20.94	39.34	-7.03	-15.16
260–572	60	20	20.93	24.18	3.24	15.50	23.52	2.59	12.39
573–1,499	70	20	18.91	21.82	2.92	15.42	21.56	2.65	14.01
1,500 or more	70	20	13.79	17.34	3.55	25.75	15.58	1.78	12.94
Total female graduate enrollment <sup>5</sup>					(Effect size = 0.18)			(Effect size = 0.12)	
1–457	70	20	48.54	40.86	-7.69	-15.83	43.28	-5.26	-10.83
458–1,031	60	30	20.11	20.40	0.29	1.44	21.32	1.21	6.04
1,032–2,065	70	20	16.99	19.78	2.79	16.42	18.06	1.07	6.28
2,066 or more	70	10	14.36	18.96	4.61*	32.09	17.33	2.98	20.75

See notes at end of table.

**Table K-30. Graduate institution-level nonresponse bias analysis for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–41	70	20	41.41	43.01	1.60	3.85	43.86	2.44	5.90
42–85	70	20	26.38	19.11	-7.27	-27.54	20.45	-5.93	-22.47
86–183	60	20	17.42	19.31	1.89	10.84	18.13	0.72	4.11
184 or more	70	20	13.51	16.81	3.31	24.48	15.00	1.50	11.07
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-31. Graduate institution-level nonresponse bias analysis for select variables for private for-profit 4-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Carnegie Classification 2015: Basic					(Effect size = ‡)			(Effect size = ‡)	
Associate's	‡	‡	‡	‡	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡	‡	‡	‡	‡
Master's	20	20	31.25	30.98	-0.27	-0.85	26.10	-5.15	-16.48
Baccalaureate	10	10	14.98	13.49	-1.49	-9.93	14.82	-0.16	-1.10
Special focus and other	10	10	24.07	20.32	-3.75	-15.59	41.00	16.93	70.34
Unavailable or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree of urbanization					(Effect size = ‡)			(Effect size = ‡)	
Large city	20	20	39.18	27.34	-11.84	-30.23	38.79	-0.39	-0.99
Midsize city	10	10	13.02	13.64	0.62	4.73	9.33	-3.69	-28.33
Small city	#	10	5.09	3.95	-1.14	-22.40	3.32	-1.77	-34.79
Large suburb	20	10	37.39	49.37	11.98*	32.03	45.53	8.14	21.77
Midsize suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	#	10	6.66	2.85	-3.80	-57.14	8.15	1.49	22.36
Great Lakes	#	10	13.45	6.48	-6.97	-51.83	3.45	-10.01	-74.39
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	20	20	43.38	51.55	8.18	18.85	32.53	-10.84	-25.00
Southwest	#	10	7.88	3.80	-4.08	-51.73	2.38	-5.51*	-69.86
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-31. Graduate institution-level nonresponse bias analysis for select variables for private for-profit 4-year institutions: 2017–18**  
—Continued

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Hispanic-Serving Institution					(Effect size = 0.07)			(Effect size = 0.19)	
Yes	10	10	12.77	15.26	2.49	19.52	18.99	6.22	48.74
No	50	40	87.23	84.74	-2.49	-2.86	81.01	-6.22	-7.13
Percentage of graduate students enrolled: Black, non-Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–7	20	10	30.24	34.31	4.07	13.44	35.52	5.28	17.46
8–22	10	10	18.39	17.61	-0.78	-4.24	32.18	13.79	74.99
23–39	20	10	27.55	37.03	9.47	34.38	19.96	-7.59	-27.56
40 or more	10	20	21.16	7.47	-13.69*	-64.69	4.29	-16.87*	-79.71
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	10	20	22.54	23.45	0.91	4.04	22.73	0.18	0.81
1–3	20	10	33.38	39.88	6.49	19.45	22.76	-10.62	-31.83
4–5	10	10	14.96	17.99	3.03	20.29	9.01	-5.94*	-39.73
6 or more	10	10	26.47	15.10	-11.37	-42.96	37.46	10.99	41.51
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	10	20	28.47	20.66	-7.81	-27.42	18.12	-10.35	-36.35
3–6	10	10	15.98	20.22	4.24	26.54	17.72	1.74	10.90
7–11	10	10	23.25	15.02	-8.24	-35.42	27.80	4.54	19.54
12 or more	20	10	29.65	40.52	10.87*	36.66	28.31	-1.33	-4.50
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Total graduate enrollment <sup>5</sup>					(Effect size = 0.12)			(Effect size = 0.52)	
1–76	20	10	26.18	22.80	-3.38	-12.90	48.78	22.61*	86.37
77–361	20	10	23.16	27.58	4.42	19.10	19.23	-3.93	-16.95
362–1,862	10	20	36.32	34.59	-1.72	-4.75	21.41	-14.91*	-41.05
1,863 or more	20	10	14.34	15.02	0.68	4.73	10.58	-3.77	-26.28

See notes at end of table.

**Table K-31. Graduate institution-level nonresponse bias analysis for select variables for private for-profit 4-year institutions: 2017–18**  
—Continued

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total male graduate enrollment <sup>5</sup>					(Effect size = 0.26)			(Effect size = 0.37)	
1–21	10	10	24.98	20.36	-4.63	-18.52	33.54	8.55	34.24
22–128	20	10	30.53	42.56	12.03*	39.39	40.19	9.65	31.62
129–475	10	20	29.17	23.01	-6.16	-21.12	15.50	-13.67*	-46.87
476 or more	10	10	15.31	14.07	-1.24	-8.09	10.77	-4.54	-29.63
Total female graduate enrollment <sup>5</sup>					(Effect size = 0.20)			(Effect size = 0.50)	
1–46	10	10	25.22	20.22	-5.00	-19.84	46.51	21.29*	84.41
47–212	20	10	27.34	35.68	8.34	30.51	24.44	-2.90	-10.60
213–1,165	10	10	33.20	30.22	-2.99	-8.99	20.31	-12.89*	-38.82
1,166 or more	10	10	14.24	13.89	-0.35	-2.46	8.74	-5.50*	-38.64
Total office and administrative support employees <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	10	10	20.27	19.71	-0.55	-2.73	13.44	-6.83	-33.68
3–7	10	10	29.01	29.00	-0.01	-0.02	15.22	-13.79*	-47.52
8–30	10	10	26.18	26.51	0.33	1.26	18.11	-8.08	-30.85
31 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	#	10	11.88	6.93	-4.95	-41.69	33.92	22.04*	185.43

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the institution base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the institution base weight adjusted for nonresponse) and the weighted full-sample mean (using the institution base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.

NOTE: Effect size was 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. "Institution base weight" refers to the institution sampling weight. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-32. Graduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Control and level of institution					
Public 4-year, non-doctorate-granting, primarily subbaccalaureate	‡	‡	‡	‡	‡
Public 4-year, non-doctorate-granting, primarily baccalaureate	8.21	8.45	8.57	-0.36	-0.12
Public 4-year, doctorate-granting	15.86	17.14	17.12	-1.26	0.02
Private nonprofit 4-year, non-doctorate-granting	36.93	32.00	30.05	6.88	1.95
Private nonprofit 4-year, doctorate-granting	27.16	32.73	31.39	-4.23*	1.34
Private for-profit 4-year	10.35	8.22	11.16	-0.81	-2.94
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	13.96	15.03	15.22	-1.26	-0.19
Master's	31.66	34.52	34.71	-3.05	-0.19
Baccalaureate	20.74	16.67	21.15	-0.41	-4.48
Special focus and other	30.91	30.56	26.02	4.89	4.54
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	23.01	26.55	25.16	-2.15	1.39
Midsized city	10.93	11.10	11.97	-1.04	-0.87
Small city	12.26	11.55	13.61	-1.35	-2.06
Large suburb	28.28	26.94	22.46	5.82	4.48
Midsized suburb	2.67	2.62	2.78	-0.11	-0.16
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	2.20	2.51	2.38	-0.18	0.13
Urban area distant from town	6.59	5.79	7.10	-0.51	-1.31
Urban area remote from town	3.79	3.91	4.07	-0.28	-0.16
Rural area on fringe of town	7.19	5.77	7.23	-0.04	-1.46
Rural area distant from town	1.10	0.94	1.15	-0.05	-0.21
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	6.10	6.86	6.47	-0.37	0.39
Mideast	22.62	23.93	16.09	6.53	7.84
Great Lakes	12.07	14.63	13.52	-1.45	1.11
Plains	10.09	8.83	11.07	-0.98	-2.24*
Southeast	21.97	22.32	23.99	-2.02	-1.67
Southwest	5.88	6.91	6.33	-0.45	0.58
Rocky Mountains	2.72	2.75	2.87	-0.15	-0.12
Far West	16.44	12.33	17.39	-0.95	-5.06
Outlying Areas	2.12	1.44	2.27	-0.15	-0.83
Historically Black College or University					
Yes	2.08	2.09	2.25	-0.17	-0.16
No or unavailable or unknown	97.92	97.91	97.75	0.17	0.16

See notes at end of table.



**Table K-32. Graduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Hispanic-Serving Institution					
Yes	9.99	9.03	10.70	-0.71	-1.67
No	90.01	90.97	89.30	0.71	1.67
Percentage of graduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–3	39.95	39.11	34.63	5.32	4.48
4–7	21.94	21.73	24.34	-2.40	-2.61
8–14	16.17	16.30	17.47	-1.30	-1.17
15 or more	19.16	21.13	20.65	-1.49	0.48
Unknown	2.77	1.73	2.92	-0.15	-1.19
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0–1	32.54	28.98	34.24	-1.70	-5.26
2–3	27.91	28.94	22.00	5.91	6.94
4–6	15.07	17.67	16.64	-1.57	1.03
7 or more	21.70	22.69	24.21	-2.51	-1.52
Unknown	2.77	1.73	2.92	-0.15	-1.19
Percentage of graduate students enrolled: Hispanic <sup>4</sup>					
0–2	36.36	35.38	30.24	6.12	5.14
3–4	19.16	21.92	21.36	-2.20	0.56
5–9	23.18	22.39	25.46	-2.28	-3.07
10 or more	18.52	18.58	20.01	-1.49	-1.43
Unknown	2.77	1.73	2.92	-0.15	-1.19
Total graduate enrollment <sup>4</sup>					
1–309	46.72	42.32	41.00	5.72	1.32
310–1,085	21.54	23.37	24.60	-3.06	-1.23
1,086–3,047	17.07	18.43	18.42	-1.35	0.01
3,048 or more	14.67	15.89	15.97	-1.30	-0.08
Total male graduate enrollment <sup>4</sup>					
1–97	46.17	41.81	40.28	5.89	1.53
98–356	22.31	24.07	25.38	-3.07	-1.31
357–1,180	16.74	18.07	18.27	-1.53	-0.20
1,181 or more	14.78	16.05	16.07	-1.29	-0.02
Total female graduate enrollment <sup>4</sup>					
1–184	47.74	43.21	42.42	5.32	0.79
185–684	20.27	21.95	22.91	-2.64	-0.96
685–1,869	17.36	19.00	18.73	-1.37	0.27
1,870 or more	14.63	15.84	15.93	-1.30	-0.09

See notes at end of table.

**Table K-32. Graduate institution-level differences between means before and after poststratification for select variables for all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>4</sup>					
0–32	44.96	44.06	40.22	4.74	3.84
33–82	20.81	22.32	22.66	-1.85	-0.34
83–206	15.47	16.89	16.91	-1.44	-0.02
207 or more	13.76	14.97	14.92	-1.16	0.05
Unknown	5.00	1.76	5.29	-0.29	-3.53*

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-33. Graduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	†	†	†	†	†
Research and doctoral	†	†	†	†	†
Master's	†	†	†	†	†
Baccalaureate	†	†	†	†	†
Special focus and other	†	†	†	†	†
Unavailable or unknown	†	†	†	†	†
Degree of urbanization					
Large city	†	†	†	†	†
Midsized city	†	†	†	†	†
Small city	†	†	†	†	†
Large suburb	†	†	†	†	†
Midsized suburb	†	†	†	†	†
Small suburb	†	†	†	†	†
Urban area on fringe of town	†	†	†	†	†
Urban area distant from town	†	†	†	†	†
Urban area remote from town	†	†	†	†	†
Rural area on fringe of town	†	†	†	†	†
Rural area distant from town	†	†	†	†	†
Rural area remote from town	†	†	†	†	†
Bureau of Economic Analysis region <sup>3</sup>					
New England	†	†	†	†	†
Mideast	†	†	†	†	†
Great Lakes	†	†	†	†	†
Plains	†	†	†	†	†
Southeast	†	†	†	†	†
Southwest	†	†	†	†	†
Rocky Mountains	†	†	†	†	†
Far West	†	†	†	†	†
Outlying Areas	†	†	†	†	†
Historically Black College or University					
Yes	†	†	†	†	†
No or unavailable or unknown	†	†	†	†	†
Hispanic-Serving Institution					
Yes	†	†	†	†	†
No	†	†	†	†	†
Percentage of graduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0	†	†	†	†	†
1–3	†	†	†	†	†
4–9	†	†	†	†	†
10 or more	†	†	†	†	†
Unknown	†	†	†	†	†

See notes at end of table.

**Table K-33. Graduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0	‡	‡	‡	‡	‡
1–5	‡	‡	‡	‡	‡
6 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>4</sup>					
0	‡	‡	‡	‡	‡
1–5	‡	‡	‡	‡	‡
6 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Total graduate enrollment <sup>4</sup>					
1	‡	‡	‡	‡	‡
2–5	‡	‡	‡	‡	‡
6–31	‡	‡	‡	‡	‡
32 or more	‡	‡	‡	‡	‡
Total male graduate enrollment <sup>4</sup>					
1	‡	‡	‡	‡	‡
2–7	‡	‡	‡	‡	‡
8 or more	‡	‡	‡	‡	‡
Total female graduate enrollment <sup>4</sup>					
1	‡	‡	‡	‡	‡
2–24	‡	‡	‡	‡	‡
25 or more	‡	‡	‡	‡	‡
Total office and administrative support employees <sup>4</sup>					
0–13	‡	‡	‡	‡	‡
14–26	‡	‡	‡	‡	‡
27–116	‡	‡	‡	‡	‡
117 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-34. Graduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡
Master's	63.51	66.49	64.97	-1.46*	1.52
Baccalaureate	31.16	27.03	29.87	1.29*	-2.84
Special focus and other	‡	‡	‡	‡	‡
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	‡	‡	‡	‡	‡
Midsize city	7.66	9.19	7.79	-0.13	1.40
Small city	‡	‡	‡	‡	‡
Large suburb	16.22	15.14	16.11	0.11	-0.97
Midsize suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	13.58	14.59	13.53	0.05	1.06
Urban area remote from town	14.26	15.68	14.42	-0.16	1.26
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	26.10	21.62	25.68	0.42*	-4.06*
Great Lakes	‡	‡	‡	‡	‡
Plains	9.21	10.27	9.23	-0.02	1.04
Southeast	22.10	22.16	22.13	-0.03	0.03
Southwest	9.08	10.81	9.22	-0.14	1.59
Rocky Mountains	‡	‡	‡	‡	‡
Far West	8.73	9.73	8.88	-0.15	0.85
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	‡	‡	‡	‡	‡
No or unavailable or unknown	92.84	94.05	93.10	-0.26*	0.95
Hispanic-Serving Institution					
Yes	10.98	13.51	11.44	-0.46*	2.07
No	89.02	86.49	88.56	0.46*	-2.07
Percentage of graduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–2	26.77	29.19	26.65	0.12	2.54
3–4	17.61	18.38	17.65	-0.04	0.73
5–12	24.18	24.86	24.43	-0.25	0.43
13 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-34. Graduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0	22.47	23.78	21.93	0.54*	1.85
1–2	38.11	37.30	38.54	-0.43*	-1.24
3	‡	‡	‡	‡	‡
4 or more	21.76	22.70	21.98	-0.22	0.72
Unknown	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>4</sup>					
0–2	30.35	28.11	29.86	0.49*	-1.75
3–4	20.25	22.70	20.55	-0.30	2.15
5–10	23.63	22.16	23.75	-0.12	-1.59
11 or more	17.89	21.62	18.31	-0.42*	3.31*
Unknown	‡	‡	‡	‡	‡
Total graduate enrollment <sup>4</sup>					
1–180	27.77	25.41	26.57	1.20*	-1.16
181–522	26.07	24.86	24.94	1.13*	-0.08
523–1,155	22.57	24.86	23.65	-1.08*	1.21
1,156 or more	23.59	24.86	24.84	-1.25*	0.02
Total male graduate enrollment <sup>4</sup>					
1–61	28.13	25.41	26.91	1.22*	-1.50
62–144	25.85	24.86	25.02	0.83*	-0.16
145–358	22.34	24.86	23.14	-0.80*	1.72
359 or more	23.68	24.86	24.93	-1.25*	-0.07
Total female graduate enrollment <sup>4</sup>					
1–103	27.56	25.41	26.36	1.20*	-0.95
104–368	28.18	24.86	27.14	1.04*	-2.28
369–696	21.35	24.86	22.37	-1.02*	2.49
697 or more	22.91	24.86	24.12	-1.21*	0.74

See notes at end of table.

**Table K-34. Graduate institution-level differences between means before and after poststratification for select variables for public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>4</sup>					
0–42	22.96	25.95	22.16	0.80*	3.79
43–70	27.92	25.41	27.68	0.24	-2.27
71–119	23.13	23.24	23.35	-0.22	-0.11
120 or more	23.76	24.32	24.66	-0.90*	-0.34
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-35. Graduate institution-level differences between means before and after poststratification for select variables for public 4-year, doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	51.34	51.73	51.81	-0.47*	-0.08
Master's	37.99	38.13	37.64	0.35*	0.49
Baccalaureate	‡	‡	‡	‡	‡
Special focus and other	‡	‡	‡	‡	‡
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	27.70	26.13	27.82	-0.12*	-1.69
Midsized city	16.11	17.33	16.14	-0.03	1.19
Small city	18.22	18.40	18.24	-0.02	0.16
Large suburb	12.15	11.47	12.18	-0.03	-0.71
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	7.26	7.73	7.22	0.04*	0.51
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	17.14	15.47	17.09	0.05	-1.62*
Great Lakes	13.17	13.87	13.20	-0.03	0.67
Plains	‡	‡	‡	‡	‡
Southeast	26.43	28.00	26.42	0.01	1.58
Southwest	13.40	13.87	13.42	-0.02	0.45
Rocky Mountains	‡	‡	‡	‡	‡
Far West	11.47	10.67	11.50	-0.03	-0.83
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	5.75	6.40	5.66	0.09*	0.74
No or unavailable or unknown	94.25	93.60	94.34	-0.09*	-0.74
Hispanic-Serving Institution					
Yes	‡	‡	‡	‡	‡
No	82.48	83.73	82.42	0.06*	1.31*
Percentage of graduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–3	26.10	25.87	26.07	0.03	-0.20
4–6	26.15	26.67	26.18	-0.03	0.49
7–12	24.57	23.73	24.64	-0.07	-0.91
13 or more	22.69	23.47	22.62	0.07	0.85
Unknown	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-35. Graduate institution-level differences between means before and after poststratification for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0–2	34.14	34.93	33.98	0.16*	0.95
3–4	21.27	22.40	21.29	-0.02	1.11
5–7	21.87	21.60	21.96	-0.09*	-0.36
8 or more	22.23	20.80	22.28	-0.05	-1.48
Unknown	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>4</sup>					
0–3	31.15	33.33	31.00	0.15*	2.33*
4–5	25.40	26.13	25.45	-0.05	0.68
6–9	17.65	16.27	17.67	-0.02	-1.40
10 or more	25.31	24.00	25.40	-0.09*	-1.40
Unknown	‡	‡	‡	‡	‡
Total graduate enrollment <sup>4</sup>					
1–1,467	26.28	25.07	25.90	0.38*	-0.83
1,468–3,081	24.74	25.07	24.39	0.35*	0.68
3,082–6,348	24.89	25.07	25.27	-0.38*	-0.20
6,349 or more	24.08	24.80	24.45	-0.37*	0.35
Total male graduate enrollment <sup>4</sup>					
1–517	26.57	25.07	26.18	0.39*	-1.11
518–1,181	23.39	25.07	23.15	0.24*	1.92
1,182–2,528	25.34	25.07	25.59	-0.25*	-0.52
2,529 or more	24.71	24.80	25.08	-0.37*	-0.28
Total female graduate enrollment <sup>4</sup>					
1–958	26.04	25.07	25.65	0.39*	-0.58
959–1,904	24.96	25.07	24.64	0.32*	0.43
1,905–3,531	24.67	25.07	25.01	-0.34*	0.06
3,532 or more	24.33	24.80	24.70	-0.37*	0.10

See notes at end of table.

**Table K-35. Graduate institution-level differences between means before and after poststratification for select variables for public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>4</sup>					
0–140	26.00	25.07	25.69	0.31*	-0.62
141–249	26.68	25.33	26.60	0.08*	-1.27
250–532	22.79	24.53	22.90	-0.11*	1.63
533 or more	24.03	24.80	24.33	-0.30*	0.47
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-36. Graduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡
Master's	21.56	26.73	29.39	-7.83	-2.66
Baccalaureate	37.75	33.62	45.75	-8.00	-12.13
Special focus and other	37.40	37.13	20.91	16.49	16.22
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	10.92	13.08	13.99	-3.07	-0.91
Midsized city	9.24	7.70	11.79	-2.55	-4.09
Small city	9.45	7.53	12.17	-2.72	-4.64
Large suburb	36.30	40.19	19.66	16.64	20.53
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	8.23	6.70	10.64	-2.41	-3.94
Urban area remote from town	2.39	2.22	3.10	-0.71	-0.88
Rural area on fringe of town	14.57	13.17	17.54	-2.97	-4.37
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	6.88	8.51	8.83	-1.95	-0.32
Mideast	‡	‡	‡	‡	‡
Great Lakes	8.35	14.84	11.01	-2.66	3.83
Plains	10.71	8.69	13.81	-3.10	-5.12
Southeast	17.78	16.20	22.21	-4.43	-6.01
Southwest	4.19	4.85	5.24	-1.05	-0.39
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	‡	‡	‡	‡	‡
No or unavailable or unknown	99.71	99.57	99.66	0.05	-0.09
Hispanic-Serving Institution					
Yes	‡	‡	‡	‡	‡
No	92.76	92.91	90.72	2.04	2.19
Percentage of graduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–2	29.54	22.88	36.54	-7.00	-13.66
3–6	38.36	38.81	22.70	15.66	16.11
7–15	16.38	18.32	20.69	-4.31	-2.37
16 or more	14.03	18.84	18.07	-4.04	0.77
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-36. Graduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0	35.49	27.79	42.65	-7.16	-14.86*
1–2	15.98	14.74	21.49	-5.51	-6.75
3	32.37	34.36	14.83	17.54	19.53
4 or more	14.49	21.96	19.04	-4.55	2.92
Unknown	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>4</sup>					
0–1	56.55	52.69	43.47	13.08	9.22
2–4	16.53	17.33	21.87	-5.34	-4.54
5–7	8.43	9.25	10.99	-2.56	-1.74
8 or more	16.81	19.59	21.66	-4.85	-2.07
Unknown	‡	‡	‡	‡	‡
Total graduate enrollment <sup>4</sup>					
1–71	32.23	23.80	37.82	-5.59	-14.02
72–209	39.85	45.50	24.04	15.81	21.46*
210–583	16.00	17.84	21.85	-5.85	-4.01
584 or more	11.93	12.86	16.29	-4.36	-3.43
Total male graduate enrollment <sup>4</sup>					
1–26	33.63	24.96	39.64	-6.01	-14.68*
27–75	38.58	44.63	22.39	16.19	22.24*
76–183	16.48	15.34	22.51	-6.03	-7.17
184 or more	11.32	15.08	15.46	-4.14	-0.38
Total female graduate enrollment <sup>4</sup>					
1–41	32.96	23.75	38.68	-5.72	-14.93*
42–142	38.42	44.62	22.23	16.19	22.39*
143–356	15.68	18.65	21.42	-5.74	-2.77
357 or more	12.94	12.98	17.67	-4.73	-4.69

See notes at end of table.

**Table K-36. Graduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>4</sup>					
0–15	53.43	53.56	39.88	13.55	13.68
16–30	20.62	18.36	25.95	-5.33	-7.59
31–56	13.26	15.56	17.21	-3.95	-1.65
57 or more	11.25	11.80	15.20	-3.95	-3.40
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-37. Graduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	16.89	14.99	15.69	1.20*	-0.70
Master's	35.46	33.94	34.28	1.18*	-0.34
Baccalaureate	6.94	5.23	7.50	-0.56*	-2.27
Special focus and other	40.48	45.30	42.31	-1.83*	2.99
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	35.59	42.02	34.84	0.75	7.18
Midsized city	12.08	11.24	12.17	-0.09	-0.93
Small city	14.96	12.82	15.58	-0.62	-2.76
Large suburb	24.96	23.29	25.04	-0.08	-1.75
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	7.34	7.05	6.90	0.44*	0.15
Mideast	19.42	25.50	19.08	0.34	6.42
Great Lakes	18.99	15.50	19.30	-0.31	-3.80
Plains	12.60	9.49	12.77	-0.17	-3.28
Southeast	20.99	19.95	21.59	-0.60	-1.64
Southwest	4.09	4.05	4.09	#	-0.04
Rocky Mountains	‡	‡	‡	‡	‡
Far West	14.81	16.88	14.59	0.22	2.29
Outlying Areas	‡	‡	‡	‡	‡
Historically Black College or University					
Yes	‡	‡	‡	‡	‡
No or unavailable or unknown	98.48	99.07	98.35	0.13	0.72
Hispanic-Serving Institution					
Yes	5.97	5.31	5.61	0.36*	-0.30
No	94.03	94.69	94.39	-0.36*	0.30
Percentage of graduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–4	34.94	41.00	35.44	-0.50	5.56
5–7	29.56	24.37	30.08	-0.52	-5.71
8–12	17.26	16.47	16.47	0.79*	#
13 or more	18.23	18.03	18.02	0.21	0.01
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-37. Graduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0–2	31.48	34.19	31.88	-0.40	2.31
3–4	16.51	15.09	15.96	0.55*	-0.87
5–7	15.93	14.05	15.72	0.21	-1.67
8 or more	36.08	36.53	36.45	-0.37	0.08
Unknown	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>4</sup>					
0–3	41.39	48.34	42.37	-0.98	5.97
4–5	15.60	14.29	15.32	0.28	-1.03
6–8	23.77	20.66	24.02	-0.25	-3.36
9 or more	19.24	16.57	18.29	0.95*	-1.72
Unknown	‡	‡	‡	‡	‡
Total graduate enrollment <sup>4</sup>					
1–788	44.13	48.79	47.89	-3.76*	0.90
789–1,702	22.76	20.94	21.44	1.32*	-0.50
1,703–3,581	16.51	16.48	15.29	1.22*	1.19
3,582 or more	16.60	13.78	15.37	1.23*	-1.59
Total male graduate enrollment <sup>4</sup>					
1–259	39.34	46.37	42.08	-2.74*	4.29
260–572	23.52	20.93	23.07	0.45	-2.14
573–1,499	21.56	18.91	20.43	1.13*	-1.52
1,500 or more	15.58	13.79	14.42	1.16*	-0.63
Total female graduate enrollment <sup>4</sup>					
1–457	43.28	48.54	46.73	-3.45*	1.81
458–1,031	21.32	20.11	20.50	0.82*	-0.39
1,032–2,065	18.06	16.99	16.72	1.34*	0.27
2,066 or more	17.33	14.36	16.05	1.28*	-1.69

See notes at end of table.

**Table K-37. Graduate institution-level differences between means before and after poststratification for select variables for private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>4</sup>					
0–41	43.86	41.41	46.05	-2.19*	-4.64
42–85	20.45	26.38	19.80	0.65*	6.58
86–183	18.13	17.42	17.49	0.64*	-0.07
184 or more	15.00	13.51	13.92	1.08*	-0.41
Unknown	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table K-38. Graduate institution-level differences between means before and after poststratification for select variables for private for-profit 4-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Carnegie Classification 2015: Basic					
Associate's	‡	‡	‡	‡	‡
Research and doctoral	‡	‡	‡	‡	‡
Master's	26.10	31.25	26.59	-0.49	4.66
Baccalaureate	14.82	14.98	14.32	0.50	0.66
Special focus and other	41.00	24.07	40.15	0.85	-16.08
Unavailable or unknown	‡	‡	‡	‡	‡
Degree of urbanization					
Large city	38.79	39.18	38.47	0.32	0.71
Midsized city	9.33	13.02	9.52	-0.19	3.50
Small city	3.32	5.09	3.30	0.02	1.79
Large suburb	45.53	37.39	45.58	-0.05	-8.19
Midsized suburb	‡	‡	‡	‡	‡
Small suburb	‡	‡	‡	‡	‡
Urban area on fringe of town	‡	‡	‡	‡	‡
Urban area distant from town	‡	‡	‡	‡	‡
Urban area remote from town	‡	‡	‡	‡	‡
Rural area on fringe of town	‡	‡	‡	‡	‡
Rural area distant from town	‡	‡	‡	‡	‡
Rural area remote from town	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	8.15	6.66	7.97	0.18	-1.31
Great Lakes	3.45	13.45	3.45	#	10.00
Plains	‡	‡	‡	‡	‡
Southeast	32.53	43.38	33.39	-0.86*	9.99
Southwest	2.38	7.88	2.48	-0.10	5.40*
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡
Hispanic-Serving Institution					
Yes	18.99	12.77	18.78	0.21	-6.01
No	81.01	87.23	81.22	-0.21	6.01
Percentage of graduate students enrolled: Black, non-Hispanic <sup>4</sup>					
0–7	35.52	30.24	35.03	0.49	-4.79
8–22	32.18	18.39	32.29	-0.11	-13.90
23–39	19.96	27.55	20.43	-0.47	7.12
40 or more	4.29	21.16	4.53	-0.24*	16.63*
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-38. Graduate institution-level differences between means before and after poststratification for select variables for private for-profit 4-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Percentage of graduate students enrolled: Asian or Pacific Islander <sup>4</sup>					
0	22.73	22.54	22.26	0.47	0.28
1–3	22.76	33.38	23.61	-0.85*	9.77
4–5	9.01	14.96	9.41	-0.40	5.55*
6 or more	37.46	26.47	37.00	0.46	-10.53
Unknown	‡	‡	‡	‡	‡
Percentage of graduate students enrolled: Hispanic <sup>4</sup>					
0–2	18.12	28.47	18.20	-0.08	10.27
3–6	17.72	15.98	17.54	0.18	-1.56
7–11	27.80	23.25	27.52	0.28	-4.27
12 or more	28.31	29.65	29.02	-0.71	0.63
Unknown	‡	‡	‡	‡	‡
Total graduate enrollment <sup>4</sup>					
1–76	48.78	26.18	46.80	1.98*	-20.62*
77–361	19.23	23.16	19.06	0.17	4.10
362–1,862	21.41	36.32	22.85	-1.44*	13.47*
1,863 or more	10.58	14.34	11.29	-0.71*	3.05
Total male graduate enrollment <sup>4</sup>					
1–21	33.54	24.98	32.18	1.36*	-7.20
22–128	40.19	30.53	39.78	0.41	-9.25
129–475	15.50	29.17	16.54	-1.04*	12.63*
476 or more	10.77	15.31	11.50	-0.73*	3.81
Total female graduate enrollment <sup>4</sup>					
1–46	46.51	25.22	44.63	1.88*	-19.41
47–212	24.44	27.34	24.37	0.07	2.97
213–1,165	20.31	33.20	21.68	-1.37*	11.52
1,166 or more	8.74	14.24	9.32	-0.58*	4.92

See notes at end of table.

**Table K-38. Graduate institution-level differences between means before and after poststratification for select variables for private for-profit 4-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>4</sup>					
0–2	13.44	20.27	13.03	0.41	7.24
3–7	15.22	29.01	15.60	-0.38	13.41*
8–30	18.11	26.18	19.08	-0.97*	7.10
31 or more	‡	‡	‡	‡	‡
Unknown	33.92	11.88	32.55	1.37*	-20.67

# Rounds to zero.

‡ Reporting standards not met (fewer than five nonrespondents).

\*  $p < 0.05$ .

<sup>1</sup> Mean was calculated using the institution base weight, adjusted for nonresponse.

<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

NOTE: "Institution base weight" refers to the institution sampling weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Control and level of institution					(Effect size = 0.10)			(Effect size = 0.07)	
Public less-than-2-year	890	410	0.34	0.25	-0.08	-24.61	0.37	0.04	10.48
Public 2-year	79,900	25,100	34.05	32.91	-1.13	-3.33	34.03	-0.01	-0.04
Public 4-year, non-doctorate-granting, primarily subbaccalaureate	12,320	6,650	7.19	6.60	-0.59	-8.24	6.93	-0.26	-3.65
Public 4-year, non-doctorate-granting, primarily baccalaureate	17,430	6,590	5.17	5.18	#	0.04	5.14	-0.03	-0.59
Public 4-year, doctorate-granting	75,270	15,420	28.95	30.70	1.74*	6.02	29.42	0.46	1.60
Private nonprofit less-than-4-year	910	270	0.47	0.45	-0.02	-3.41	0.39	-0.08	-16.58
Private nonprofit 4-year, non-doctorate-granting	21,750	6,220	6.89	7.17	0.28	4.00	7.37	0.48	6.90
Private nonprofit 4-year, doctorate-granting	22,810	7,220	9.54	10.44	0.90*	9.39	9.90	0.35	3.70
Private for-profit less-than-2-year	4,070	2,170	1.37	1.01	-0.36	-26.36	1.11	-0.25	-18.59
Private for-profit 2-year	3,210	2,840	1.64	0.74	-0.91*	-55.19	0.89	-0.76*	-46.05
Private for-profit 4-year	6,650	2,090	4.38	4.55	0.18	4.02	4.45	0.07	1.60
State, control, and level of institution					(Effect size = ‡)			(Effect size = ‡)	
Alabama									
Public 2-year	1,710	550	0.44	0.43	-0.01	-2.55	0.44	#	#
Public 4-year	1,740	670	0.72	0.63	-0.10	-13.66	0.72	#	#
Other	800	270	0.30	0.30	#	-1.09	0.30	#	#
Alaska									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	5,390	1,150	0.18	0.21	0.03	17.04	0.18	#	#
Other	110	60	#	#	#	-20.40	#	#	#
Arizona									
Public 2-year	2,630	70	1.05	1.33	0.28*	26.92	1.05	#	#
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	1,160	250	1.11	1.04	-0.07	-6.47	1.11	#	#
Arkansas									
Public 2-year	2,060	400	0.25	0.27	0.02	9.10	0.25	#	#
Public 4-year	1,840	560	0.44	0.43	-0.01	-2.06	0.44	#	#
Other	900	90	0.09	0.10	0.01	14.16	0.09	#	#

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
California									
Public 2-year	2,470	1,510	7.99	6.17	-1.82*	-22.76	7.99	#	#
Public 4-year	1,310	760	5.09	4.47	-0.62	-12.13	5.09	#	#
Other	670	140	2.16	2.42	0.26	12.09	2.16	#	#
Colorado									
Public 2-year	1,470	380	0.36	0.34	-0.02	-6.31	0.36	#	#
Public 4-year	2,860	490	1.00	1.11	0.11	11.28	1.00	#	#
Other	1,030	190	0.32	0.33	0.01	3.12	0.32	#	#
Connecticut									
Public 2-year	1,770	470	0.31	0.32	#	0.56	0.31	#	#
Public 4-year	1,220	240	0.29	0.32	0.03	10.21	0.29	#	#
Other	1,550	910	0.43	0.39	-0.04	-8.25	0.43	#	#
Delaware									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	4,970	0.22	0.28	0.06	27.41	0.27	0.05	22.07	0.22
Other	1,210	0.07	0.02	-0.05	-67.94	0.02	-0.05	-66.48	0.07
District of Columbia									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	270	330	0.03	0.02	-0.01	-40.65	0.03	#	#
Other	1,970	2,200	0.30	0.22	-0.08	-25.62	0.30	#	#
Florida									
Public 2-year	830	260	0.32	0.36	0.05	14.18	0.32	#	#
Public 4-year	3,300	670	4.24	4.63	0.40	9.37	4.24	#	#
Other	770	450	1.46	1.26	-0.21	-14.11	1.46	#	#
Georgia									
Public 2-year	790	220	0.76	0.79	0.03	3.90	0.76	#	#
Public 4-year	1,550	2,510	1.62	0.83	-0.79*	-48.58	1.62	#	#
Other	910	230	0.50	0.53	0.04	7.84	0.50	#	#
Hawaii									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	1,040	170	0.06	0.05	-0.01	-22.36	0.06	#	#

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Idaho									
Public 2-year	680	530	0.11	0.10	#	-4.58	0.11	#	#
Public 4-year	940	530	0.21	0.21	#	-0.95	0.21	#	#
Other	1,270	320	0.40	0.17	-0.23	-57.15	0.40	#	#
Illinois									
Public 2-year	2,960	210	1.75	2.11	0.36*	20.60	1.75	#	#
Public 4-year	1,420	60	0.77	0.98	0.21*	26.85	0.77	#	#
Other	1,040	350	1.20	1.21	0.01	0.74	1.20	#	#
Indiana									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	2,880	360	0.91	1.09	0.18*	19.56	0.97	0.05	5.81
Other	1,030	640	0.44	0.33	-0.11	-25.12	0.27	-0.17	-38.70
Iowa									
Public 2-year	2,120	760	0.40	0.40	#	0.15	0.40	#	#
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	1,310	1,190	0.47	0.21	-0.25	-54.79	0.47	#	#
Kansas									
Public 2-year	1,770	530	0.46	0.47	0.02	3.79	0.46	#	#
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	950	70	0.14	0.17	0.03*	22.65	0.14	#	#
Kentucky									
Public 2-year	1,030	590	0.36	0.29	-0.07	-20.18	0.36	#	#
Public 4-year	2,410	180	0.52	0.65	0.13	24.40	0.52	#	#
Other	1,040	230	0.19	0.21	0.01	6.78	0.19	#	#
Louisiana									
Public 2-year	1,610	400	0.38	0.39	0.01	3.93	0.38	#	#
Public 4-year	2,650	520	0.62	0.69	0.08	12.15	0.62	#	#
Other	1,100	220	0.22	0.24	0.02	7.25	0.22	#	#
Maine									
Public 2-year	1,300	80	0.09	0.11	0.02	27.92	0.12	0.04	43.56
Public 4-year	1,230	720	0.15	0.14	#	-1.83	0.14	-0.01	-4.36
Other	1,210	560	0.10	0.07	-0.03	-26.42	0.07	-0.03	-30.41

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Maryland									
Public 2-year	1,240	1,390	0.75	0.48	-0.28	-36.98	0.75	#	#
Public 4-year	1,940	550	0.84	0.92	0.08	9.11	0.84	#	#
Other	650	160	0.23	0.25	0.02	7.78	0.23	#	#
Massachusetts									
Public 2-year	1,340	390	0.53	0.54	0.01	1.24	0.53	#	#
Public 4-year	1,690	100	0.59	0.74	0.15*	25.83	0.59	#	#
Other	2,710	690	1.13	1.19	0.06	5.62	1.13	#	#
Michigan									
Public 2-year	1,920	420	0.92	1.02	0.10	10.46	0.92	#	#
Public 4-year	3,020	280	1.49	1.78	0.29*	19.62	1.49	#	#
Other	700	110	0.41	0.47	0.06	14.43	0.41	#	#
Minnesota									
Public 2-year	3,140	140	0.68	0.86	0.18*	25.87	0.68	#	#
Public 4-year	2,120	160	0.54	0.65	0.11*	21.19	0.54	#	#
Other	1,130	240	0.52	0.58	0.06	11.05	0.52	#	#
Mississippi									
Public 2-year	1,500	1,320	0.41	0.30	-0.10	-25.54	0.41	#	#
Public 4-year	1,830	590	0.35	0.41	0.06	16.35	0.35	#	#
Other	720	90	0.09	0.11	0.02*	25.66	0.09	#	#
Missouri									
Public 2-year	1,630	170	0.54	0.64	0.10	18.73	0.54	#	#
Public 4-year	1,700	300	0.62	0.72	0.09	15.24	0.62	#	#
Other	1,800	500	0.58	0.60	0.02	3.40	0.58	#	#
Montana									
Public 2-year	680	740	0.04	0.02	-0.02	-49.54	0.04	#	#
Public 4-year	3,240	590	0.19	0.21	0.01	7.53	0.19	#	#
Other	260	290	0.03	0.02	-0.01	-19.98	0.03	#	#
Nebraska									
Public 2-year	2,010	230	0.22	0.28	0.06	27.90	0.24	0.02	9.93
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	1,060	380	0.13	0.10	-0.02	-19.20	0.08	-0.04	-34.78

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Nevada									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	1,780	2,600	0.54	0.18	-0.36*	-66.79	0.54	#	#
Other	540	520	0.06	0.04	-0.02	-27.43	0.06	#	#
New Hampshire									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	1,140	220	0.14	0.15	0.01	5.86	0.19	0.05*	36.31
Other	2,120	1,430	0.67	0.79	0.12	17.64	0.71	0.04	5.45
New Jersey									
Public 2-year	1,980	870	0.93	0.74	-0.19	-20.38	0.93	#	#
Public 4-year	1,760	730	0.91	0.84	-0.07	-7.89	0.91	#	#
Other	950	170	0.45	0.48	0.03	6.77	0.45	#	#
New Mexico									
Public 2-year	2,730	990	0.35	0.34	-0.01	-3.71	0.35	#	#
Public 4-year	1,100	640	0.26	0.24	-0.02	-7.79	0.26	#	#
Other	390	160	0.02	0.02	#	-12.71	0.02	#	#
New York									
Public 2-year	1,620	670	1.63	1.47	-0.16	-9.74	1.63	#	#
Public 4-year	1,640	570	1.99	1.77	-0.22*	-11.02	1.99	#	#
Other	1,370	900	2.13	1.70	-0.43	-20.20	2.13	#	#
North Carolina									
Public 2-year	2,780	640	1.16	1.23	0.08	6.50	1.16	#	#
Public 4-year	2,030	250	1.08	1.26	0.19	17.23	1.08	#	#
Other	1,080	330	0.48	0.46	-0.02	-3.68	0.48	#	#
North Dakota									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	1,300	2,690	0.19	0.12	-0.07	-35.09	0.19	#	#
Other	360	170	0.03	0.03	-0.01	-18.12	0.03	#	#
Ohio									
Public 2-year	2,120	390	1.01	1.04	0.03	2.92	1.01	#	#
Public 4-year	1,220	1,790	1.33	0.77	-0.56*	-41.97	1.33	#	#
Other	1,130	280	0.81	0.95	0.14*	17.28	0.81	#	#

See notes at end of table.



**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Oklahoma									
Public 2-year	2,080	290	0.37	0.45	0.08	20.46	0.37	#	#
Public 4-year	3,000	90	0.55	0.70	0.15*	27.41	0.55	#	#
Other	590	100	0.12	0.13	#	3.48	0.12	#	#
Oregon									
Public 2-year	2,420	560	0.55	0.64	0.09	15.53	0.55	#	#
Public 4-year	960	740	0.45	0.36	-0.09	-19.94	0.45	#	#
Other	730	230	0.15	0.16	0.01	3.79	0.15	#	#
Pennsylvania									
Public 2-year	1,530	130	0.79	0.94	0.15	19.06	0.79	#	#
Public 4-year	2,390	210	1.20	1.22	0.02	1.71	1.20	#	#
Other	2,140	90	1.36	1.68	0.32*	23.33	1.36	#	#
Puerto Rico									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	540	430	0.29	0.20	-0.09	-30.05	0.29	#	#
Other	2,950	1,380	0.79	0.64	-0.15	-18.45	0.79	#	#
Rhode Island									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	2,150	1,560	0.21	0.17	-0.04	-21.06	0.31	0.10	47.84
South Carolina									
Public 2-year	810	890	0.50	0.36	-0.14	-28.06	0.50	#	#
Public 4-year	2,190	150	0.51	0.62	0.12	22.84	0.51	#	#
Other	1,220	220	0.24	0.25	0.01	4.86	0.24	#	#
South Dakota									
Public 2-year	960	320	0.04	0.03	-0.01	-18.43	0.04	#	#
Public 4-year	2,450	1,430	0.18	0.15	-0.03	-18.71	0.18	#	#
Other	780	110	0.08	0.09	0.01	13.78	0.08	#	#
Tennessee									
Public 2-year	1,720	780	0.56	0.47	-0.10	-17.14	0.56	#	#
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	1,470	200	0.46	0.47	0.01	1.41	0.46	#	#

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Texas									
Public 2-year	2,950	1,050	4.00	3.83	-0.17	-4.21	4.00	#	#
Public 4-year	2,230	340	3.20	3.74	0.53*	16.61	3.20	#	#
Other	660	230	0.91	0.84	-0.07	-7.78	0.91	#	#
Utah									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	2,260	510	0.65	0.72	0.08	11.70	0.65	#	#
Other	1,820	90	0.77	1.00	0.23	29.69	0.77	#	#
Vermont									
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	1,920	520	0.08	0.10	0.02	22.81	0.08	#	#
Other	1,970	80	0.09	0.11	0.02*	26.17	0.09	#	#
Virginia									
Public 2-year	2,080	410	0.92	1.03	0.11	11.82	0.92	#	#
Public 4-year	1,920	330	1.00	1.16	0.16	15.84	1.00	#	#
Other	1,630	140	0.77	0.97	0.20	26.05	0.77	#	#
Washington									
Public 2-year	560	160	0.21	0.22	0.01	2.49	0.21	#	#
Public 4-year	3,050	860	1.44	1.43	-0.01	-0.43	1.44	#	#
Other	1,020	240	0.23	0.27	0.03	14.77	0.23	#	#
West Virginia									
Public 2-year	450	190	0.06	0.06	#	-5.43	0.06	#	#
Public 4-year	1,610	520	0.28	0.30	0.01	4.55	0.28	#	#
Other	2,300	600	0.45	0.57	0.12	27.74	0.45	#	#
Wisconsin									
Public 2-year	1,720	240	0.47	0.56	0.09	18.41	0.47	#	#
Public 4-year	2,650	460	0.87	0.97	0.10	10.99	0.87	#	#
Other	800	360	0.26	0.19	-0.07	-27.08	0.26	#	#
Wyoming									
Public 2-year	1,500	1,740	0.08	0.05	-0.03	-33.06	0.08	#	#
Public 4-year	1,830	50	0.06	0.07	0.02	27.95	0.06	#	#
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = 0.08)			(Effect size = #)	
New England	26,740	10,980	5.16	5.36	0.20	3.84	5.16	#	#
Mideast	27,620	9,780	13.84	13.03	-0.81	-5.87	13.84	#	#
Great Lakes	26,960	5,960	13.22	14.21	1.00*	7.54	13.22	#	#
Plains	32,080	9,420	6.85	7.47	0.62*	8.98	6.85	#	#
Southeast	56,170	16,610	23.35	23.86	0.51	2.18	23.35	#	#
Southwest	20,790	4,200	12.60	13.51	0.90	7.16	12.60	#	#
Rocky Mountains	21,270	6,460	4.41	4.63	0.21	4.77	4.41	#	#
Far West	30,010	9,740	19.47	17.08	-2.39*	-12.28	19.47	#	#
Outlying Areas	3,540	1,810	1.09	0.86	-0.23*	-21.11	1.09	#	#
Federal aid status					(Effect size = 0.04)			(Effect size = #)	
Received	131,040	46,130	51.86	50.08	-1.77*	-3.42	51.86	0.01	0.01
Did not receive	114,150	28,830	48.14	49.92	1.77*	3.68	48.14	-0.01	-0.01
Direct Loan status					(Effect size = 0.01)			(Effect size = #)	
Received	87,150	29,820	31.86	31.47	-0.39	-1.22	31.87	0.01	0.02
Did not receive	158,050	45,140	68.14	68.53	0.39	0.57	68.13	-0.01	-0.01
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.01)			(Effect size = #)	
None	158,050	45,140	68.14	68.53	0.39	0.57	68.13	-0.01	-0.01
\$1–\$4,500	22,720	7,990	8.33	8.25	-0.08	-0.97	8.34	0.01	0.14
\$4,501–\$6,000	21,010	7,050	7.44	7.35	-0.10	-1.32	7.45	0.01	0.15
\$6,001–\$7,500	24,790	7,680	8.64	8.78	0.14	1.57	8.64	-0.01	-0.06
\$7,501 or more	18,630	7,100	7.44	7.10	-0.35	-4.64	7.43	-0.01	-0.17
Age as of December 31, 2017					(Effect size = 0.12)			(Effect size = 0.12)	
15–23	160,250	43,860	61.78	63.61	1.83*	2.96	62.98	1.20*	1.94
24–29	38,050	12,150	16.28	16.13	-0.15	-0.91	16.49	0.21	1.30
30 or older	46,420	15,050	19.89	19.83	-0.06	-0.28	20.17	0.29	1.44
Unknown	470	3,910	2.05	0.43	-1.63*	-79.25	0.36	-1.70*	-82.70

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	72,730	5,870	22.63	27.24	4.62*	20.40	24.51	1.89*	8.33
Did not receive	172,460	21,460	62.27	72.76	10.48*	16.84	75.49	13.21*	21.22
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	44,210	8,190	19.37	20.60	1.23*	6.36	19.37	#	#
Did not receive	200,990	36,180	71.23	79.40	8.16*	11.46	80.63	9.40*	13.19
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.01)			(Effect size = #)	
Yes	9,950	3,190	3.98	3.84	-0.14	-3.45	3.98	#	#
No	235,250	71,770	96.02	96.16	0.14	0.14	96.02	#	#
Race/ethnicity					(Effect size = 0.21)			(Effect size = 0.20)	
White	139,410	26,620	45.42	50.28	4.86*	10.70	48.70	3.28*	7.23
Black or African American	28,460	8,310	12.05	12.40	0.35	2.93	12.90	0.85*	7.07
Hispanic	33,610	8,470	18.52	19.14	0.62	3.33	20.03	1.51*	8.13
Asian	13,410	1,620	6.62	7.41	0.80*	12.06	7.55	0.94*	14.18
American Indian or Alaska Native	3,910	1,290	0.71	0.81	0.09*	13.24	0.80	0.09*	12.25
Native Hawaiian or other Pacific Islander	1,330	150	0.39	0.47	0.08*	19.66	0.47	0.08*	20.64
More than one race	11,570	1,670	2.98	3.25	0.27*	9.16	3.13	0.16*	5.25
Unknown	13,510	26,840	13.31	6.24	-7.07*	-53.13	6.41	-6.90*	-51.86
Gender					(Effect size = 0.10)			(Effect size = 0.10)	
Male	106,220	28,960	43.31	44.29	0.98*	2.25	44.00	0.69	1.59
Female	138,400	43,110	54.90	55.23	0.33	0.60	55.59	0.69	1.25
Unknown	570	2,890	1.79	0.48	-1.30*	-73.06	0.41	-1.37*	-76.95
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.04)			(Effect size = 0.01)	
1–2,938	57,680	22,610	13.06	11.92	-1.14*	-8.71	12.98	-0.08	-0.60
2,939–8,721	58,870	21,360	18.68	18.83	0.15	0.79	18.58	-0.10	-0.53
8,722–18,604	63,690	16,310	23.62	23.19	-0.43	-1.83	23.42	-0.20	-0.85
18,605 or more	64,960	14,690	44.64	46.06	1.42	3.18	45.02	0.38	0.85

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major					(Effect size = ‡)			(Effect size = ‡)	
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	46,940	8,660	19.03	21.31	2.24*	11.79	21.55	2.53*	13.27
Social/behavioral sciences	14,600	2,830	6.51	7.23	0.70*	10.78	7.23	0.72*	11.05
Life sciences	19,640	3,530	8.16	9.09	0.92*	11.29	8.95	0.80*	9.77
Physical sciences/mathematics	3,930	690	1.77	2.01	0.24*	13.26	1.97	0.20*	11.34
Computer/information science	9,200	1,550	4.10	4.61	0.51*	12.42	4.64	0.55*	13.36
Engineering	13,640	2,180	5.32	5.98	0.64*	12.08	5.80	0.47*	8.90
Education	9,730	1,810	3.14	3.49	0.34*	10.85	3.40	0.26*	8.24
Business/management	32,230	5,730	13.45	15.17	1.70*	12.62	15.01	1.57*	11.65
Health	35,060	7,380	12.45	13.43	0.97*	7.81	13.67	1.22*	9.80
Vocational/technical	8,280	1,710	2.81	2.79	-0.01	-0.46	2.79	-0.02	-0.68
Other technical/professional	25,370	4,970	10.17	11.14	0.96*	9.41	11.23	1.06*	10.38
Unknown	8,110	31,720	13.06	3.70	-9.22*	-70.55	3.71	-9.36*	-71.64
Degree program (undergraduate only)					(Effect size = 0.16)			(Effect size = 0.15)	
Postsecondary award, certificate, or diploma of less than 2 academic years	22,030	7,190	7.74	7.24	-0.50	-6.49	7.73	-0.01	-0.19
Associate's degree	73,530	22,730	32.42	32.64	0.22	0.68	33.87	1.45*	4.47
Postsecondary award, certificate, diploma, or degree program	128,780	32,860	50.91	53.92	3.01*	5.92	52.01	1.10	2.17
Bachelor's degree or equivalent	18,340	2,210	4.41	4.90	0.49*	11.14	4.97	0.57*	12.84
Unknown	2,530	9,970	4.52	1.30	-3.22*	-71.20	1.42	-3.10*	-68.66
Pell Grant status					(Effect size = 0.05)			(Effect size = #)	
Received	83,360	31,790	34.85	32.62	-2.23*	-6.40	34.85	#	#
Did not receive	161,840	43,180	65.15	67.38	2.23*	3.43	65.15	#	#
Total Pell amount received <sup>7</sup>					(Effect size = 0.05)			(Effect size = #)	
None	161,840	43,180	65.15	67.38	2.23*	3.43	65.15	#	#
\$1-\$2,959	25,180	8,990	10.33	9.97	-0.36*	-3.45	10.33	#	#
\$2,960-\$5,919	32,570	12,080	13.47	12.74	-0.73*	-5.42	13.47	#	#
\$5,920 or more	25,610	10,720	11.06	9.91	-1.15*	-10.36	11.06	#	#

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = 0.03)		(Effect size = 0.02)		
1–66	67,380	19,180	35.50	36.71	1.21	3.40	36.25	0.75	2.11
67–81	70,980	18,940	26.37	25.89	-0.48	-1.83	26.30	-0.07	-0.27
82–94	61,760	20,960	24.36	23.32	-1.04	-4.27	23.78	-0.58	-2.40
95 or more	41,680	13,620	12.16	12.60	0.44	3.64	12.26	0.11	0.87
None or unknown	3,400	2,270	1.61	1.48	-0.13	-7.89	1.41	-0.20	-12.37
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = 0.06)		(Effect size = 0.04)		
0–111	24,480	11,200	6.67	6.32	-0.35	-5.24	6.46	-0.21	-3.10
112–289	30,560	9,150	6.79	6.84	0.05	0.76	7.23	0.45	6.61
290–665	34,830	7,540	10.37	11.20	0.83*	7.96	11.16	0.79	7.62
666 or more	61,640	14,900	30.01	31.99	1.98*	6.61	30.13	0.12	0.40
Unknown	93,700	32,170	46.17	43.65	-2.51*	-5.44	45.01	-1.15	-2.50
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = 0.02)		(Effect size = 0.02)		
0–38	27,980	10,360	6.53	6.29	-0.24	-3.73	6.50	-0.03	-0.52
39–92	51,210	15,670	12.31	12.18	-0.13	-1.04	12.25	-0.06	-0.47
93–239	62,570	18,160	21.00	20.97	-0.03	-0.16	20.59	-0.42	-1.98
240 or more	98,380	28,420	58.14	58.69	0.55	0.95	58.87	0.73	1.25
Unknown	5,050	2,350	2.01	1.86	-0.15	-7.32	1.79	-0.22	-10.98

See notes at end of table.

**Table K-39. Undergraduate student-level nonresponse bias analysis for select variables for all students: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = 0.06)			(Effect size = 0.05)	
\$0–\$4,870	51,790	20,150	17.00	15.51	-1.49	-8.76	15.30	-1.70*	-9.98
\$4,871–\$5,914	53,280	17,270	25.84	24.81	-1.02	-3.96	26.43	0.59	2.29
\$5,915–\$9,272	76,150	21,130	29.32	29.48	0.16	0.54	29.38	0.06	0.20
\$9,273 or more	59,350	14,030	26.08	28.55	2.47*	9.46	27.32	1.24	4.74
Unknown	4,620	2,370	1.77	1.66	-0.11	-6.37	1.58	-0.19	-10.87

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-40. Undergraduate student-level nonresponse bias analysis for select variables for students in public less-than-2-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	190	230	48.76	28.52	-20.24	-41.52	56.05	7.28	14.93
Southwest	90	120	18.37	14.45	-3.91	-21.30	10.69	-7.68	-41.82
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = 0.10)			(Effect size = 0.16)	
Received	290	180	31.75	26.87	-4.87	-15.35	39.05	7.30	22.99
Did not receive	600	230	68.25	73.13	4.87	7.14	60.95	-7.30	-10.69
Direct Loan status					(Effect size = 0.05)			(Effect size = 0.01)	
Received	50	40	5.24	6.26	1.03	19.61	5.42	0.18	3.48
Did not receive	840	370	94.76	93.74	-1.03	-1.08	94.58	-0.18	-0.19
Total Direct Loan amount received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
None	840	370	94.76	93.74	-1.03	-1.08	94.58	-0.18	-0.19
\$1–\$2,750	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$2,751–\$4,324	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$4,325–\$6,467	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$6,468 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	370	200	42.80	37.19	-5.60*	-13.09	44.60	1.80	4.21
24–29	210	100	25.29	27.65	2.36*	9.32	26.07	0.78	3.09
30 or older	310	100	31.10	34.96	3.86	12.41	29.11	-1.99	-6.38
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-40. Undergraduate student-level nonresponse bias analysis for select variables for students in public less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	840	340	92.14	96.16	4.01	4.36	95.91	3.76	4.08
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	830	390	94.57	93.73	-0.84	-0.89	96.22	1.64	1.74
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	600	190	54.14	68.92	14.79*	27.31	63.80	9.66	17.85
Black or African American	80	90	20.45	7.68	-12.77	-62.44	11.70	-8.74	-42.76
Hispanic	120	40	11.63	15.44	3.81	32.78	15.90	4.28	36.81
Asian	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	510	230	59.82	58.66	-1.16	-1.93	59.67	-0.15	-0.25
Female	380	180	39.49	41.34	1.84	4.67	40.33	0.83	2.11
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–621	170	200	15.18	16.09	0.91	5.96	12.67	-2.51	-16.55
622–944	90	210	40.27	7.21	-33.06	-82.10	4.93	-35.34	-87.75
945–3,652	‡	‡	‡	‡	‡	‡	‡	‡	‡
3,653 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-40. Undergraduate student-level nonresponse bias analysis for select variables for students in public less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major					(Effect size = ‡)			(Effect size = ‡)	
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	250	30	23.89	29.62	8.87	37.15	25.60	1.72	7.20
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree program (undergraduate only)					(Effect size = ‡)			(Effect size = ‡)	
Postsecondary award, certificate, or diploma of less than 2 academic years	790	250	67.67	91.03	23.37	34.53	93.33	25.67	37.93
Associate's degree	‡	‡	‡	‡	‡	‡	‡	‡	‡
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	100	110	27.98	8.97	-19.01	-67.94	6.67	-21.31	-76.17
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status					(Effect size = 0.12)			(Effect size = 0.16)	
Received	250	170	29.52	24.12	-5.39	-18.26	36.71	7.19	24.37
Did not receive	630	240	70.48	75.88	5.39	7.65	63.29	-7.19	-10.21
Total Pell amount received <sup>7</sup>					(Effect size = 0.13)			(Effect size = 0.21)	
None	630	240	70.48	75.88	5.39	7.65	63.29	-7.19	-10.21
\$1–\$2,960	100	40	9.44	8.90	-0.54	-5.77	11.46	2.02	21.43
\$2,961–\$5,919	100	90	13.95	10.74	-3.20	-22.95	14.79	0.85	6.09
\$5,920 or more	60	40	6.13	4.48	-1.65	-26.85	10.45	4.32	70.51

See notes at end of table.

**Table K-40. Undergraduate student-level nonresponse bias analysis for select variables for students in public less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = 0.59)			(Effect size = 0.88)	
1–47	250	80	22.60	30.20	7.60	33.63	56.75	34.15*	151.09
48–67	410	60	30.10	43.12	13.02	43.26	26.85	-3.25	-10.81
68–82	60	210	36.62	8.62	-28.00	-76.45	6.51	-30.11	-82.22
83 or more	170	60	10.68	18.05	7.37	69.06	9.89	-0.78	-7.34
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
5–7	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	830	410	99.57	99.25	-0.32	-0.32	99.30	-0.27	-0.27
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–4	120	120	21.78	27.68	5.89	27.06	54.40	32.62*	149.73
5–9	40	60	11.95	12.70	0.75	6.27	9.48	-2.46	-20.62
10–19	340	210	46.83	25.96	-20.87	-44.57	15.82	-31.01	-66.22
20 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-40. Undergraduate student-level nonresponse bias analysis for select variables for students in public less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$0–\$3,436	100	80	6.87	3.54	-3.33	-48.47	2.60	-4.27	-62.14
\$3,437–\$4,382	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$4,383–\$5,765	90	120	10.58	8.78	-1.80	-17.00	7.04	-3.53	-33.41
\$5,766 or more	120	210	48.12	27.68	-20.44	-42.48	54.40	6.28	13.05
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-41. Undergraduate student-level nonresponse bias analysis for select variables for students in public 2-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	5,840	3,950	3.41	3.08	-0.33	-9.62	2.96	-0.45	-13.16
Mideast	6,370	3,050	12.08	11.05	-1.03	-8.55	12.09	0.01	0.04
Great Lakes	11,080	1,260	13.87	16.64	2.77*	19.97	14.22	0.35	2.52
Plains	12,140	2,150	6.97	8.31	1.34*	19.16	7.04	0.07	0.96
Southeast	17,360	6,610	17.99	18.21	0.22	1.22	17.99	0.01	0.04
Southwest	10,390	2,400	16.97	18.09	1.12	6.62	16.98	0.01	0.04
Rocky Mountains	5,700	3,410	2.33	2.38	0.04	1.90	2.33	#	0.04
Far West	10,950	2,270	26.35	22.21	-4.14*	-15.72	26.36	0.01	0.04
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = #)			(Effect size = 0.02)	
Received	38,680	13,760	42.37	42.44	0.08	0.18	43.27	0.91	2.14
Did not receive	41,220	11,330	57.63	57.56	-0.08	-0.14	56.73	-0.91	-1.57
Direct Loan status					(Effect size = 0.02)			(Effect size = 0.02)	
Received	17,900	6,000	15.73	16.55	0.82*	5.21	16.28	0.55	3.49
Did not receive	62,000	19,100	84.27	83.45	-0.82*	-0.97	83.72	-0.55	-0.65
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.02)			(Effect size = 0.02)	
None	62,000	19,100	84.27	83.45	-0.82*	-0.97	83.72	-0.55	-0.65
\$1–\$3,250	4,540	1,490	4.23	4.52	0.29*	6.74	4.42	0.18	4.31
\$3,251–\$5,320	4,330	1,600	4.20	4.34	0.14	3.24	4.26	0.06	1.44
\$5,321–\$7,406	4,530	1,450	3.46	3.65	0.19	5.52	3.65	0.19	5.47
\$7,407 or more	4,500	1,470	3.84	4.04	0.21	5.39	3.95	0.12	3.05
Age as of December 31, 2017					(Effect size = 0.15)			(Effect size = 0.16)	
15–23	43,980	13,660	52.99	54.78	1.78	3.37	55.12	2.13*	4.02
24–29	15,400	4,690	18.91	19.27	0.36	1.91	19.31	0.41	2.14
30 or older	20,230	6,100	24.33	24.97	0.63	2.60	24.80	0.47	1.93
Unknown	290	650	3.77	0.99	-2.78	-73.75	0.76	-3.01*	-79.78

See notes at end of table.

**Table K-41. Undergraduate student-level nonresponse bias analysis for select variables for students in public 2-year institutions:  
2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	7,200	610	4.80	5.93	1.13*	23.64	4.73	-0.07	-1.41
Did not receive	72,700	5,310	74.13	94.07	19.94*	26.89	95.27	21.14*	28.51
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	12,740	2,160	16.79	19.12	2.33*	13.87	17.13	0.34	2.05
Did not receive	67,160	9,320	68.20	80.88	12.69*	18.60	82.87	14.67*	21.51
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = #)			(Effect size = #)	
Yes	3,820	1,150	4.11	4.13	0.02	0.39	4.19	0.08	1.96
No	76,080	23,950	95.89	95.87	-0.02	-0.02	95.81	-0.08	-0.08
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	45,080	7,830	40.71	47.75	7.04*	17.31	46.28	5.57*	13.68
Black or African American	10,050	2,170	11.95	13.55	1.60*	13.37	13.88	1.92*	16.10
Hispanic	12,130	2,520	20.68	23.15	2.46*	11.91	24.26	3.57*	17.28
Asian	3,930	360	5.67	6.48	0.81*	14.25	6.92	1.25*	21.97
American Indian or Alaska Native	1,540	250	0.81	0.97	0.17*	20.47	0.95	0.14*	17.79
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	3,350	400	2.29	2.65	0.36*	15.68	2.55	0.26*	11.28
Unknown	3,450	11,530	17.64	5.14	-12.49*	-70.84	4.88	-12.75*	-72.30
Gender					(Effect size = 0.13)			(Effect size = 0.14)	
Male	34,060	9,950	42.61	44.24	1.62*	3.81	44.05	1.44	3.38
Female	45,450	14,660	54.02	54.66	0.64	1.18	55.06	1.04	1.92
Unknown	380	490	3.37	1.11	-2.26	-67.15	0.89	-2.48	-73.52
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.01)			(Effect size = 0.03)	
1–3,843	19,990	6,320	7.52	7.68	0.16	2.09	7.52	#	-0.06
3,844–9,601	17,660	8,560	18.70	18.48	-0.22	-1.18	17.63	-1.07	-5.72
9,602–17,503	21,570	4,730	25.17	25.31	0.14	0.56	26.03	0.85	3.40
17,504 or more	20,680	5,490	48.61	48.53	-0.08	-0.16	48.83	0.22	0.45

See notes at end of table.

**Table K-41. Undergraduate student-level nonresponse bias analysis for select variables for students in public 2-year institutions:  
2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major					(Effect size = ‡)			(Effect size = ‡)	
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	24,430	3,970	28.99	34.47	5.24*	18.09	34.29	5.30*	18.28
Social/behavioral sciences	1,050	180	2.30	2.65	0.33*	14.42	2.78	0.48*	20.92
Life sciences	2,520	410	4.57	5.20	0.60*	13.16	5.53	0.96*	21.00
Physical sciences/mathematics	480	120	0.99	1.13	0.13	13.61	1.13	0.14	13.72
Computer/information science	2,740	370	3.52	4.34	0.79*	22.35	4.30	0.78*	22.18
Engineering	2,830	500	3.35	4.07	0.69*	20.54	4.02	0.67*	20.12
Education	1,790	380	1.72	2.07	0.34*	19.58	1.99	0.27*	15.58
Business/management	7,430	1,000	9.95	12.08	2.05*	20.58	12.44	2.50*	25.11
Health	12,880	1,950	12.87	15.61	2.62*	20.38	15.10	2.23*	17.31
Vocational/technical	5,360	620	4.27	5.22	0.91*	21.24	4.90	0.62*	14.53
Other technical/professional	6,450	1,010	8.73	10.35	1.55*	17.74	10.68	1.95*	22.31
Unknown	2,180	13,810	18.69	2.74	-15.27*	-81.69	2.76	-15.93*	-85.21
Degree program (undergraduate only)					(Effect size = ‡)			(Effect size = ‡)	
Postsecondary award, certificate, or diploma of less than 2 academic years	12,290	2,220	11.47	12.98	1.52*	13.22	13.02	1.55*	13.54
Associate's degree	56,290	15,910	71.78	75.92	4.15*	5.78	75.60	3.82*	5.32
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	9,710	790	7.34	8.84	1.50*	20.47	8.78	1.44*	19.67
Unknown	1,610	4,100	7.74	2.25	-5.48*	-70.87	2.60	-5.13*	-66.34
Pell Grant status					(Effect size = 0.01)			(Effect size = 0.01)	
Received	29,580	10,930	34.37	33.95	-0.42	-1.21	35.00	0.63	1.83
Did not receive	50,320	14,170	65.63	66.05	0.42	0.63	65.00	-0.63	-0.96
Total Pell amount received <sup>7</sup>					(Effect size = 0.03)			(Effect size = 0.01)	
None	50,320	14,170	65.63	66.05	0.42	0.63	65.00	-0.63	-0.96
\$1–\$2,960	10,740	3,670	12.48	12.77	0.28	2.28	12.57	0.09	0.72
\$2,961–\$5,919	12,130	4,250	14.06	14.08	0.02	0.14	14.43	0.37	2.61
\$5,920 or more	6,700	3,010	7.82	7.10	-0.72*	-9.20	8.00	0.17	2.20

See notes at end of table.

**Table K-41. Undergraduate student-level nonresponse bias analysis for select variables for students in public 2-year institutions:  
2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–63	26,030	6,350	38.45	41.78	3.33	8.67	41.19	2.74	7.13
64–75	25,920	5,110	29.60	30.61	1.01	3.42	30.70	1.11	3.73
76–85	12,830	5,500	18.15	15.97	-2.18	-12.00	15.53	-2.62	-14.42
86 or more	15,000	8,130	13.80	11.63	-2.17*	-15.73	12.56	-1.24	-8.97
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = 0.03)			(Effect size = 0.04)	
0–38	4,500	1,060	4.23	4.56	0.33	7.78	4.16	-0.07	-1.57
39–72	3,770	1,990	3.40	3.70	0.30	8.79	3.98	0.58	17.14
73–136	4,110	2,850	2.71	2.86	0.15	5.35	2.62	-0.09	-3.22
137 or more	6,090	1,820	4.66	5.11	0.45	9.69	5.19	0.52	11.20
Unknown	61,440	17,390	85.00	83.77	-1.22	-1.44	84.05	-0.95	-1.12
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–61	14,250	4,510	6.26	6.97	0.70	11.26	6.52	0.26	4.18
62–126	12,480	5,320	12.23	10.86	-1.37	-11.17	9.85	-2.38*	-19.47
127–256	21,940	5,010	24.30	24.38	0.07	0.31	24.88	0.58	2.39
257 or more	30,290	10,230	57.07	57.65	0.58	1.02	58.63	1.56	2.73
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-41. Undergraduate student-level nonresponse bias analysis for select variables for students in public 2-year institutions:  
2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = ‡)		(Effect size = ‡)		
\$0–\$4,599	18,400	7,600	18.92	17.68	-1.24	-6.57	16.81	-2.11	-11.16
\$4,600–\$5,137	26,220	6,950	26.93	26.66	-0.27	-1.00	24.68	-2.25	-8.35
\$5,138–\$5,724	18,460	3,930	27.96	30.00	2.04	7.29	32.14	4.18	14.95
\$5,725 or more	16,250	6,600	26.13	25.59	-0.55	-2.09	26.30	0.17	0.65
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-42. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	2,630	190	6.35	5.54	-0.80	-12.66	5.84	-0.51	-8.03
Great Lakes	1,440	820	9.24	8.70	-0.54	-5.86	9.01	-0.23	-2.53
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	2,180	970	39.72	45.35	5.63	14.18	41.85	2.13	5.36
Southwest	680	240	5.03	4.90	-0.12	-2.46	3.92	-1.11	-22.07
Rocky Mountains	950	280	3.38	4.13	0.75	22.09	3.44	0.06	1.68
Far West	3,680	2,510	35.37	30.72	-4.66	-13.16	34.83	-0.54	-1.54
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = 0.07)			(Effect size = 0.02)	
Received	5,900	3,310	44.83	41.39	-3.44	-7.68	45.63	0.80	1.79
Did not receive	6,420	3,350	55.17	58.61	3.44	6.24	54.37	-0.80	-1.45
Direct Loan status					(Effect size = 0.05)			(Effect size = 0.01)	
Received	2,820	1,490	16.82	14.82	-1.99	-11.86	17.26	0.44	2.65
Did not receive	9,500	5,160	83.18	85.18	1.99	2.40	82.74	-0.44	-0.53
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.06)			(Effect size = 0.03)	
None	9,500	5,160	83.18	85.18	1.99	2.40	82.74	-0.44	-0.53
\$1–\$3,500	920	430	5.28	5.16	-0.12	-2.25	5.40	0.12	2.25
\$3,501–\$5,500	760	500	5.14	4.19	-0.95*	-18.51	4.91	-0.23	-4.41
\$5,501–\$7,500	480	260	2.72	2.15	-0.56*	-20.74	2.73	0.01	0.25
\$7,501 or more	660	300	3.68	3.32	-0.36	-9.80	4.23	0.55	14.81
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	6,760	3,140	55.86	55.99	0.13	0.24	55.40	-0.46	-0.82
24–29	2,370	1,270	19.99	19.89	-0.10	-0.51	19.79	-0.20	-1.00
30 or older	3,190	1,820	23.47	24.00	0.52	2.22	24.68	1.20	5.12
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-42. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	1,540	430	7.18	8.79	1.60*	22.31	7.60	0.42	5.81
Did not receive	10,780	1,730	72.98	91.21	18.24*	24.99	92.40	19.42*	26.62
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	2,500	740	22.71	23.75	1.04	4.57	22.62	-0.10	-0.43
Did not receive	9,830	3,440	69.56	76.25	6.68*	9.61	77.38	7.82*	11.24
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.01)			(Effect size = #)	
Yes	570	340	4.15	3.93	-0.23	-5.44	4.12	-0.03	-0.74
No	11,760	6,320	95.85	96.07	0.23	0.24	95.88	0.03	0.03
Race/ethnicity					(Effect size = 0.19)			(Effect size = 0.18)	
White	6,560	1,960	37.51	40.04	2.53	6.76	40.34	2.83	7.53
Black or African American	1,420	540	13.19	13.84	0.65	4.95	13.65	0.46	3.51
Hispanic	2,300	880	29.15	31.78	2.63	9.00	31.20	2.05	7.03
Asian	690	230	5.50	5.62	0.12	2.12	5.95	0.45	8.15
American Indian or Alaska Native	190	740	0.67	0.62	-0.05	-7.79	0.59	-0.08	-12.50
Native Hawaiian or other Pacific Islander	80	50	0.38	0.43	0.05	13.82	0.42	0.04	10.95
More than one race	530	190	2.51	2.54	0.03	1.07	2.48	-0.03	-1.33
Unknown	550	2,060	11.08	5.13	-5.96*	-53.72	5.37	-5.71*	-51.51
Gender					(Effect size = 0.04)			(Effect size = 0.04)	
Male	5,280	2,590	43.26	43.51	0.25	0.58	43.58	0.32	0.73
Female	7,010	3,800	56.01	56.08	0.07	0.13	56.04	0.04	0.07
Unknown	30	260	0.73	0.41	-0.32	-44.40	0.38	-0.35	-48.48
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.09)			(Effect size = 0.13)	
1–3,772	1,930	2,850	6.20	4.02	-2.18*	-35.15	4.79	-1.41	-22.69
3,773–9,167	3,610	1,100	14.03	14.20	0.17	1.22	18.33	4.31	30.70
9,168–18,681	4,220	940	21.05	21.28	0.23	1.10	19.43	-1.63	-7.72
18,682 or more	2,560	1,760	58.72	60.50	1.78	3.03	57.45	-1.27	-2.17

See notes at end of table.

**Table K-42. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major			(Effect size = ‡)				(Effect size = ‡)		
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	4,060	980	34.84	41.43	6.65*	19.09	38.71	3.87*	11.12
Social/behavioral sciences	110	130	1.96	1.78	-0.19	-9.44	2.14	0.18	9.38
Life sciences	330	210	3.13	3.07	-0.05	-1.68	4.07	0.94	30.23
Physical sciences/mathematics	110	50	1.08	0.98	-0.10	-9.24	1.25	0.17	15.40
Computer/information science	450	100	4.10	4.25	0.16	3.81	4.08	-0.01	-0.30
Engineering	730	80	2.59	2.93	0.34	13.22	2.94	0.34	13.17
Education	390	180	2.27	2.15	-0.11	-5.00	2.20	-0.07	-3.06
Business/management	1,270	450	9.59	9.89	0.30	3.10	10.39	0.80	8.35
Health	1,790	580	12.56	13.75	1.20	9.57	13.90	1.35*	10.72
Vocational/technical	510	310	4.09	3.29	-0.81	-19.79	3.32	-0.77	-18.86
Other technical/professional	1,100	310	7.82	8.06	0.24	3.13	8.46	0.64	8.19
Unknown	510	2,640	15.91	8.32	-7.66*	-48.14	8.45	-7.46*	-46.88
Degree program (undergraduate only)			(Effect size = 0.19)				(Effect size = 0.15)		
Postsecondary award, certificate, or diploma of less than 2 academic years	1,000	400	7.08	7.36	0.29	4.05	7.14	0.06	0.82
Associate's degree	8,720	3,340	66.75	74.39	7.63*	11.43	72.81	6.06	9.07
Postsecondary award, certificate, diploma, or degree program	1,480	1,750	17.04	10.72	-6.32*	-37.07	12.56	-4.47	-26.26
Bachelor's degree or equivalent	950	640	5.69	5.32	-0.36	-6.41	5.23	-0.46	-8.01
Unknown	170	520	3.44	2.21	-1.24	-35.90	2.26	-1.18	-34.38
Pell Grant status			(Effect size = 0.06)				(Effect size = 0.01)		
Received	4,450	2,630	36.48	33.79	-2.70	-7.39	36.97	0.48	1.32
Did not receive	7,870	4,020	63.52	66.21	2.70	4.24	63.03	-0.48	-0.76
Total Pell amount received <sup>7</sup>			(Effect size = 0.06)				(Effect size = 0.03)		
None	7,870	4,020	63.52	66.21	2.70	4.24	63.03	-0.48	-0.76
\$1–\$2,960	1,630	770	12.79	12.09	-0.70	-5.48	12.30	-0.49	-3.85
\$2,961–\$5,919	1,730	1,040	14.58	13.49	-1.10	-7.52	14.95	0.36	2.50
\$5,920 or more	1,090	820	9.11	8.22	-0.90	-9.84	9.72	0.61	6.69

See notes at end of table.

**Table K-42. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = 0.10)			(Effect size = 0.12)	
1–59	3,250	1,620	30.04	26.62	-3.42	-11.39	25.08	-4.96	-16.51
60–69	1,790	570	24.60	28.15	3.54	14.41	27.48	2.88	11.71
70–83	2,970	2,630	27.69	26.94	-0.76	-2.73	27.86	0.17	0.60
84 or more	4,310	1,840	17.66	18.30	0.64	3.60	19.57	1.91	10.83
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = 0.11)			(Effect size = 0.13)	
0–19	1,120	1,980	6.04	5.49	-0.55	-9.19	5.97	-0.07	-1.21
20–65	700	140	3.28	4.38	1.10	33.62	4.16	0.88	27.00
66–248	1,350	1,010	5.39	3.47	-1.92	-35.62	3.00	-2.39*	-44.28
249 or more	680	280	5.47	5.39	-0.08	-1.49	7.05	1.58	28.89
Unknown	8,470	3,240	79.83	81.28	1.45	1.82	79.82	#	-0.01
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = 0.08)			(Effect size = 0.11)	
0–74	2,590	2,470	7.76	5.77	-1.99	-25.65	6.26	-1.50	-19.28
75–140	2,800	1,250	14.54	15.78	1.24	8.53	17.18	2.63	18.09
141–337	2,150	950	17.96	18.30	0.34	1.90	20.31	2.35	13.09
338 or more	4,790	1,980	59.73	60.14	0.41	0.69	56.25	-3.49	-5.84

See notes at end of table.

**Table K-42. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = 0.12)			(Effect size = 0.03)	
\$0–\$4,763	5,180	3,050	19.48	16.27	-3.21	-16.46	18.98	-0.49	-2.53
\$4,764–\$5,525	2,010	640	24.30	21.77	-2.53	-10.43	23.21	-1.09	-4.49
\$5,526–\$6,300	2,360	890	36.67	39.64	2.98	8.11	37.43	0.76	2.07
\$6,301 or more	2,780	2,080	19.56	22.32	2.76	14.14	20.38	0.82	4.21

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-43. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = 0.19)			(Effect size = 0.12)	
New England	2,030	1,560	7.67	7.22	-0.45	-5.81	6.36	-1.31	-17.08
Mideast	2,130	620	23.89	22.68	-1.21	-5.08	25.83	1.94	8.11
Great Lakes	1,100	140	7.18	8.21	1.03	14.36	7.23	0.05	0.73
Plains	2,090	1,480	7.74	9.48	1.75*	22.59	8.27	0.54	6.96
Southeast	3,180	1,460	19.92	18.64	-1.28	-6.41	19.36	-0.56	-2.81
Southwest	1,470	150	7.25	8.88	1.63*	22.45	7.55	0.30	4.10
Rocky Mountains	3,240	80	12.11	15.44	3.33*	27.50	14.00	1.88	15.56
Far West	2,100	970	13.02	9.01	-4.01	-30.77	10.89	-2.13	-16.35
Outlying Areas	90	130	1.22	0.43	-0.79	-64.91	0.51	-0.71	-58.32
Federal aid status					(Effect size = 0.09)			(Effect size = 0.02)	
Received	10,030	4,360	60.19	55.88	-4.32*	-7.17	61.33	1.13	1.88
Did not receive	7,400	2,230	39.81	44.12	4.32*	10.84	38.67	-1.13	-2.84
Direct Loan status					(Effect size = 0.02)			(Effect size = 0.01)	
Received	7,500	3,310	41.36	40.60	-0.77	-1.85	42.02	0.65	1.57
Did not receive	9,930	3,280	58.64	59.40	0.77	1.31	57.98	-0.65	-1.11
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.02)			(Effect size = 0.02)	
None	9,930	3,280	58.64	59.40	0.77	1.31	57.98	-0.65	-1.11
\$1–\$4,888	1,850	850	10.80	10.56	-0.23	-2.15	11.22	0.43	3.96
\$4,889–\$6,250	1,960	850	11.03	10.88	-0.14	-1.31	11.13	0.10	0.90
\$6,251–\$7,500	2,150	900	11.39	11.27	-0.12	-1.05	11.53	0.14	1.19
\$7,501 or more	1,530	720	8.15	7.88	-0.27	-3.31	8.14	-0.01	-0.15
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	11,430	4,460	69.31	68.13	-1.18	-1.70	68.67	-0.63	-0.91
24–29	2,810	850	15.79	15.75	-0.04	-0.26	15.76	-0.03	-0.20
30 or older	3,170	970	14.67	16.02	1.36*	9.26	15.48	0.81	5.55
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-43. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	5,080	330	23.82	28.29	4.47*	18.78	24.77	0.95	4.00
Did not receive	12,350	2,060	65.81	71.71	5.90*	8.96	75.23	9.42*	14.31
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	3,860	680	28.84	28.05	-0.79	-2.74	29.64	0.81	2.79
Did not receive	13,570	2,370	64.23	71.95	7.72*	12.03	70.36	6.13*	9.54
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.01)			(Effect size = #)	
Yes	730	190	3.22	3.49	0.26*	8.18	3.25	0.03	0.82
No	16,690	6,390	96.78	96.51	-0.26*	-0.27	96.75	-0.03	-0.03
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	11,000	2,210	52.24	58.77	6.53*	12.50	55.80	3.56*	6.82
Black or African American	1,740	1,050	12.33	10.96	-1.37	-11.14	11.97	-0.36	-2.92
Hispanic	1,810	460	16.31	15.50	-0.81	-4.96	17.32	1.01	6.18
Asian	790	130	5.92	5.47	-0.46	-7.70	5.90	-0.02	-0.34
American Indian or Alaska Native	530	50	1.33	1.64	0.31*	23.18	1.51	0.18*	13.34
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	710	150	3.40	3.63	0.22	6.56	3.44	0.04	1.20
Unknown	750	2,540	8.18	3.67	-4.51*	-55.13	3.58	-4.60*	-56.20
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	7,470	2,630	42.58	43.00	0.42	0.99	42.39	-0.19	-0.44
Female	9,940	3,870	57.18	56.82	-0.35	-0.62	57.45	0.27	0.48
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.04)			(Effect size = 0.05)	
1–2,310	4,150	2,060	6.25	7.11	0.85	13.67	7.17	0.92	14.70
2,311–4,294	4,770	1,050	15.06	14.66	-0.41	-2.70	14.46	-0.61	-4.02
4,295–6,594	3,660	2,430	24.67	23.92	-0.74	-3.02	23.10	-1.57	-6.34
6,595 or more	4,840	1,050	54.02	54.31	0.30	0.55	55.27	1.25	2.32

See notes at end of table.



**Table K-43. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major					(Effect size = ‡)			(Effect size = ‡)	
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	2,330	580	15.05	15.09	0.04	0.26	15.42	0.37	2.47
Social/behavioral sciences	1,520	320	10.97	11.49	0.51	4.67	11.66	0.69	6.29
Life sciences	1,870	430	10.74	11.37	0.62	5.78	11.34	0.60	5.57
Physical sciences/mathematics	320	80	2.01	2.17	0.16	7.92	2.29	0.28	14.04
Computer/information science	520	90	3.89	4.16	0.26	6.78	4.58	0.69*	17.73
Engineering	680	90	3.79	4.38	0.57*	15.09	4.17	0.38*	9.93
Education	1,490	230	6.19	7.15	0.94*	15.27	7.26	1.07*	17.33
Business/management	2,880	510	16.66	18.01	1.32*	7.95	17.99	1.33*	7.99
Health	1,650	300	8.29	8.79	0.49	5.91	8.22	-0.07	-0.87
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	1,760	360	11.40	12.44	1.01*	8.89	12.61	1.21	10.58
Unknown	640	3,440	10.04	3.89	-6.02*	-59.97	3.45	-6.59*	-65.62
Degree program (undergraduate only)					(Effect size = 0.06)			(Effect size = 0.06)	
Postsecondary award, certificate, or diploma of less than 2 academic years	140	40	0.34	0.27	-0.07	-19.59	0.27	-0.07	-19.39
Associate's degree	1,040	430	4.19	4.19	#	#	4.06	-0.13	-3.07
Postsecondary award, certificate, diploma, or degree program	14,690	4,900	87.98	88.35	0.37	0.42	88.72	0.74	0.84
Bachelor's degree or equivalent	1,480	130	3.49	4.12	0.64*	18.23	3.93	0.45	12.89
Unknown	80	1,080	4.01	3.07	-0.94	-23.47	3.02	-0.99	-24.75
Pell Grant status					(Effect size = 0.10)			(Effect size = 0.01)	
Received	6,040	2,830	39.71	35.01	-4.70*	-11.83	40.43	0.71	1.79
Did not receive	11,380	3,760	60.29	64.99	4.70*	7.80	59.57	-0.71	-1.18
Total Pell amount received <sup>7</sup>					(Effect size = 0.10)			(Effect size = 0.02)	
None	11,380	3,760	60.29	64.99	4.70*	7.80	59.57	-0.71	-1.18
\$1–\$2,960	1,630	690	9.39	9.19	-0.20	-2.10	10.02	0.63*	6.66
\$2,961–\$5,919	2,260	1,020	14.33	12.76	-1.57*	-10.96	14.51	0.18	1.28
\$5,920 or more	2,150	1,120	15.99	13.06	-2.93*	-18.33	15.90	-0.10	-0.61

See notes at end of table.

**Table K-43. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = 0.15)			(Effect size = 0.12)	
1–70	4,620	310	27.31	33.22	5.91*	21.62	32.00	4.68*	17.15
71–82	5,840	2,300	29.73	25.61	-4.12	-13.87	27.36	-2.37	-7.97
83–90	3,210	1,780	25.10	22.67	-2.42	-9.65	22.17	-2.93	-11.66
91 or more	3,460	1,670	16.51	16.86	0.36	2.15	16.67	0.16	1.00
None or unknown	290	520	1.35	1.63	0.28	21.07	1.80	0.45	33.23
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = 0.11)			(Effect size = 0.07)	
0–133	4,630	2,180	16.72	13.96	-2.76*	-16.52	15.31	-1.42	-8.46
134–242	3,560	440	16.18	19.17	2.99*	18.45	18.30	2.12*	13.11
243–475	3,380	1,650	22.07	20.07	-2.01	-9.10	21.15	-0.93	-4.19
476 or more	2,880	770	28.23	29.17	0.93	3.30	28.19	-0.04	-0.14
Unknown	2,980	1,550	16.79	17.64	0.85	5.08	17.05	0.26	1.55
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = 0.06)			(Effect size = 0.06)	
0–55	5,930	1,890	7.72	8.87	1.15	14.92	8.78	1.07	13.81
56–120	3,620	1,690	15.96	16.28	0.32	2.02	15.45	-0.51	-3.17
121–244	3,220	940	23.08	23.32	0.23	1.01	22.46	-0.62	-2.68
245 or more	4,360	1,550	51.89	49.90	-1.99	-3.83	51.50	-0.39	-0.75
Unknown	290	520	1.35	1.63	0.28	21.07	1.80	0.45	33.23

See notes at end of table.

**Table K-43. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = 0.11)			(Effect size = 0.08)	
\$0–\$5,971	5,720	2,550	23.06	21.20	-1.86	-8.05	20.86	-2.20	-9.53
\$5,972–\$7,276	4,450	1,880	28.02	30.29	2.27	8.10	28.76	0.74	2.65
\$7,277–\$8,481	5,080	750	20.20	23.00	2.80	13.86	22.50	2.30	11.37
\$8,482 or more	1,880	880	27.37	23.87	-3.50	-12.78	26.08	-1.29	-4.71
Unknown	290	520	1.35	1.63	0.28	21.07	1.80	0.45	33.23

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-44. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = 0.09)			(Effect size = 0.03)	
New England	6,540	240	3.34	4.01	0.68*	20.25	3.67	0.34*	10.07
Mideast	8,200	1,740	12.08	11.42	-0.66	-5.44	11.92	-0.16	-1.34
Great Lakes	8,640	1,980	15.00	14.97	-0.04	-0.24	15.08	0.08	0.53
Plains	10,440	1,490	7.24	8.01	0.77	10.58	7.23	-0.01	-0.17
Southeast	19,520	4,530	27.90	27.46	-0.44	-1.58	27.43	-0.47	-1.68
Southwest	5,460	690	13.53	15.43	1.90*	14.06	13.58	0.05	0.36
Rocky Mountains	6,950	1,820	4.28	4.08	-0.19	-4.56	3.91	-0.37	-8.59
Far West	9,190	2,640	15.92	14.12	-1.80	-11.31	16.50	0.58	3.63
Outlying Areas	330	300	0.70	0.49	-0.22	-30.71	0.67	-0.03	-4.91
Federal aid status					(Effect size = 0.09)			(Effect size = 0.03)	
Received	37,960	11,230	55.08	50.62	-4.46*	-8.09	53.76	-1.32	-2.39
Did not receive	37,320	4,190	44.92	49.38	4.46*	9.92	46.24	1.32	2.94
Direct Loan status					(Effect size = 0.06)			(Effect size = 0.02)	
Received	29,540	8,730	40.76	37.83	-2.93*	-7.19	39.88	-0.88	-2.16
Did not receive	45,730	6,680	59.24	62.17	2.93*	4.95	60.12	0.88	1.49
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.06)			(Effect size = 0.02)	
None	45,730	6,680	59.24	62.17	2.93*	4.95	60.12	0.88	1.49
\$1–\$5,414	7,320	2,250	10.45	9.66	-0.78*	-7.47	10.32	-0.13	-1.20
\$5,415–\$6,500	10,680	3,120	14.59	13.55	-1.04*	-7.13	14.16	-0.42	-2.90
\$6,501–\$7,500	6,340	1,700	8.69	8.26	-0.42*	-4.89	8.63	-0.05	-0.63
\$7,501 or more	5,200	1,670	7.04	6.36	-0.69*	-9.74	6.76	-0.28	-3.97
Age as of December 31, 2017					(Effect size = 0.07)			(Effect size = 0.07)	
15–23	57,740	11,030	77.77	78.40	0.64	0.82	78.17	0.40	0.52
24–29	9,290	1,940	12.46	12.42	-0.05	-0.38	12.71	0.24	1.95
30 or older	8,150	1,490	9.01	9.00	-0.02	-0.20	8.93	-0.08	-0.92
Unknown	100	960	0.76	0.19	-0.57	-75.47	0.19	-0.56	-74.47

See notes at end of table.

**Table K-44. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	27,680	2,410	32.09	36.35	4.26*	13.27	31.73	-0.36	-1.13
Did not receive	47,590	8,130	60.05	63.65	3.61*	6.01	68.27	8.23*	13.70
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	17,250	3,330	26.00	25.55	-0.45	-1.72	25.31	-0.69	-2.64
Did not receive	58,020	9,170	69.59	74.45	4.87*	6.99	74.69	5.10*	7.33
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = #)			(Effect size = #)	
Yes	2,210	530	2.59	2.59	#	#	2.59	#	0.09
No	73,060	14,880	97.41	97.41	#	#	97.41	#	#
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	44,330	7,390	50.61	52.76	2.15*	4.25	51.17	0.56	1.10
Black or African American	7,130	1,840	10.16	9.65	-0.50	-4.93	10.29	0.14	1.36
Hispanic	8,110	1,700	16.31	15.95	-0.36	-2.19	16.32	0.02	0.10
Asian	4,840	460	8.84	9.79	0.95*	10.81	9.83	1.00*	11.30
American Indian or Alaska Native	1,050	120	0.60	0.67	0.07*	10.83	0.68	0.08	13.02
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	5,390	500	4.41	4.66	0.25*	5.73	4.59	0.18	4.08
Unknown	4,220	3,390	8.39	5.68	-2.71*	-32.27	6.24	-2.15*	-25.61
Gender					(Effect size = 0.06)			(Effect size = 0.06)	
Male	35,020	6,480	46.50	47.02	0.52*	1.12	46.77	0.27	0.58
Female	40,150	8,050	52.91	52.82	-0.09	-0.18	53.07	0.16	0.31
Unknown	100	890	0.59	0.16	-0.43	-72.30	0.16	-0.43	-73.32
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.03)			(Effect size = 0.03)	
1–10,954	19,080	4,090	15.71	14.83	-0.88	-5.63	14.85	-0.86	-5.49
10,955–17,663	18,460	4,230	17.05	16.90	-0.15	-0.89	17.57	0.52	3.06
17,664–25,427	19,640	2,820	22.56	23.16	0.61	2.68	22.10	-0.45	-2.01
25,428 or more	18,100	4,280	44.69	45.12	0.43	0.96	45.48	0.79	1.78

See notes at end of table.

**Table K-44. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major			(Effect size = ±)				(Effect size = ±)		
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	8,170	1,840	11.62	11.50	-0.12	-1.03	11.82	0.20	1.69
Social/behavioral sciences	6,510	1,260	10.60	10.87	0.27	2.54	10.99	0.39	3.69
Life sciences	9,610	1,690	14.01	14.75	0.72*	5.17	14.67	0.66*	4.72
Physical sciences/mathematics	1,990	310	3.06	3.33	0.26*	8.66	3.26	0.20*	6.56
Computer/information science	3,200	470	4.50	4.78	0.27*	6.09	4.78	0.29*	6.35
Engineering	7,600	1,150	9.82	10.53	0.70*	7.12	10.33	0.51	5.16
Education	3,900	570	3.71	3.86	0.15	4.14	3.96	0.25*	6.75
Business/management	11,060	1,770	14.99	15.81	0.81*	5.38	15.64	0.64*	4.30
Health	7,780	1,450	8.49	8.88	0.39*	4.58	9.06	0.58*	6.78
Vocational/technical	740	80	0.66	0.71	0.04	6.73	0.72	0.06	8.55
Other technical/professional	7,940	1,570	10.88	11.18	0.30	2.75	11.02	0.14	1.32
Unknown	2,360	3,130	7.63	3.77	-3.81*	-49.93	3.72	-3.92*	-51.31
Degree program (undergraduate only)			(Effect size = 0.11)				(Effect size = 0.11)		
Postsecondary award, certificate, or diploma of less than 2 academic years	330	110	0.66	0.51	-0.16	-23.49	0.51	-0.15	-23.01
Associate's degree	1,990	980	2.09	1.43	-0.66*	-31.63	1.74	-0.35	-16.83
Postsecondary award, certificate, diploma, or degree program	68,000	12,780	92.87	94.81	1.94*	2.09	94.36	1.49*	1.61
Bachelor's degree or equivalent	4,370	130	2.29	2.59	0.30*	13.13	2.80	0.51*	22.16
Unknown	580	1,410	2.09	0.67	-1.42*	-67.99	0.60	-1.50*	-71.56
Pell Grant status			(Effect size = 0.07)				(Effect size = 0.02)		
Received	20,460	6,520	32.37	29.14	-3.23*	-9.98	31.50	-0.87	-2.69
Did not receive	54,820	8,900	67.63	70.86	3.23*	4.78	68.50	0.87	1.29
Total Pell amount received <sup>7</sup>			(Effect size = 0.07)				(Effect size = 0.02)		
None	54,820	8,900	67.63	70.86	3.23*	4.78	68.50	0.87	1.29
\$1–\$2,970	6,390	2,010	9.25	8.55	-0.70*	-7.53	9.23	-0.02	-0.16
\$2,971–\$5,919	6,450	1,980	10.12	9.09	-1.02*	-10.11	9.64	-0.48	-4.74
\$5,920 or more	7,620	2,520	13.01	11.49	-1.51*	-11.62	12.63	-0.38	-2.90

See notes at end of table.

**Table K-44. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = 0.09)			(Effect size = 0.06)	
1–68	16,480	3,930	33.80	36.07	2.27*	6.72	33.95	0.15	0.44
69–80	24,970	4,600	25.89	25.92	0.03	0.12	26.85	0.96	3.71
81–89	17,510	3,940	24.49	21.72	-2.77*	-11.31	23.36	-1.13	-4.61
90 or more	15,720	2,410	15.15	16.02	0.86	5.70	15.55	0.40	2.65
None or unknown	600	550	0.67	0.27	-0.40	-59.90	0.29	-0.38	-56.94
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = 0.03)			(Effect size = 0.02)	
0–483	16,320	2,030	11.59	11.24	-0.35	-3.02	11.96	0.36	3.14
484–908	17,340	4,460	17.90	16.87	-1.02	-5.72	17.76	-0.14	-0.80
909–1,583	18,630	4,250	24.46	24.51	0.05	0.20	24.33	-0.13	-0.54
1,584 or more	21,080	3,930	43.19	44.62	1.42	3.29	43.28	0.09	0.21
Unknown	1,920	740	2.86	2.76	-0.10	-3.41	2.68	-0.18	-6.18
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = 0.07)			(Effect size = 0.05)	
0–204	18,270	3,430	12.12	12.11	-0.01	-0.06	11.67	-0.45	-3.72
205–339	24,900	3,000	21.15	23.29	2.14*	10.13	21.81	0.66	3.13
340–557	17,430	5,020	25.61	24.21	-1.40	-5.47	25.05	-0.56	-2.19
558 or more	14,080	3,420	40.45	40.12	-0.33	-0.82	41.18	0.73	1.81
Unknown	600	550	0.67	0.27	-0.40	-59.90	0.29	-0.38	-56.94

See notes at end of table.

**Table K-44. Undergraduate student-level nonresponse bias analysis for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = 0.08)		(Effect size = 0.05)		
\$0–\$6,778	24,890	6,560	20.82	19.25	-1.56	-7.52	20.59	-0.23	-1.12
\$6,779–\$8,176	17,700	3,990	21.87	20.98	-0.89	-4.06	21.26	-0.61	-2.79
\$8,177–\$9,547	15,830	2,670	24.25	24.59	0.34	1.40	24.04	-0.21	-0.85
\$9,548 or more	16,260	1,650	32.40	34.91	2.51*	7.75	33.82	1.43	4.41
Unknown	600	550	0.67	0.27	-0.40	-59.90	0.29	-0.38	-56.94

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table K-45. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit less-than-4-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	170	60	0.99	0.82	-0.16	-16.60	1.03	0.04	3.91
Mideast	110	60	19.57	26.42	6.85	35.00	25.98	6.40	32.72
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = 0.01)			(Effect size = 0.08)	
Received	590	140	52.75	53.26	0.51	0.96	56.68	3.93	7.45
Did not receive	320	130	47.25	46.74	-0.51	-1.08	43.32	-3.93	-8.32
Direct Loan status					(Effect size = 0.06)			(Effect size = 0.13)	
Received	410	90	25.88	28.70	2.82	10.91	31.53	5.66	21.86
Did not receive	500	180	74.12	71.30	-2.82	-3.81	68.47	-5.66	-7.63
Total Direct Loan amount received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
None	500	180	74.12	71.30	-2.82	-3.81	68.47	-5.66	-7.63
\$1–\$3,902	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$3,903–\$5,904	100	30	7.67	8.45	0.78	10.20	9.61	1.94	25.24
\$5,905–\$9,500	120	40	7.17	8.05	0.87	12.20	9.11	1.93	26.92
\$9,501 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	470	180	54.32	50.21	-4.11	-7.57	50.08	-4.25	-7.81
24–29	220	40	22.02	24.71	2.69	12.22	24.92	2.90	13.18
30 or older	210	50	23.62	25.03	1.41	5.96	24.96	1.33	5.65
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-45. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	760	90	47.37	54.82	7.44	15.71	57.39	10.01	21.14
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	870	250	96.46	95.39	-1.08	-1.12	95.58	-0.88	-0.91
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	520	60	60.67	77.40	16.74	27.59	76.30	15.63	25.76
Black or African American	‡	‡	‡	‡	‡	‡	‡	‡	‡
Hispanic	‡	‡	‡	‡	‡	‡	‡	‡	‡
Asian	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	40	180	21.55	4.63	-16.92	-78.52	4.52	-17.03	-79.04
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	430	110	54.29	66.09	11.79	21.72	64.30	10.00	18.42
Female	480	150	45.71	33.91	-11.79	-25.80	35.70	-10.00	-21.88
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–147	150	210	22.83	4.01	-18.83	-82.46	4.98	-17.85	-78.19
148–396	‡	‡	‡	‡	‡	‡	‡	‡	‡
397–1,099	290	60	31.94	34.37	2.43	7.59	34.66	2.72	8.51
1,100 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-45. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major					(Effect size = ‡)			(Effect size = ‡)	
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	280	30	6.88	7.16	0.29	4.28	8.64	1.76	25.66
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree program (undergraduate only)					(Effect size = ‡)			(Effect size = ‡)	
Postsecondary award, certificate, or diploma of less than 2 academic years	350	70	54.18	63.67	9.50	17.53	64.29	10.11	18.67
Associate's degree	550	90	33.14	36.01	2.87	8.67	35.38	2.24	6.76
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status					(Effect size = 0.01)			(Effect size = 0.07)	
Received	450	100	43.44	42.77	-0.67	-1.54	46.79	3.35*	7.71
Did not receive	460	170	56.56	57.23	0.67	1.18	53.21	-3.35*	-5.92
Total Pell amount received <sup>7</sup>					(Effect size = ‡)			(Effect size = ‡)	
None	460	170	56.56	57.23	0.67	1.18	53.21	-3.35*	-5.92
\$1–\$2,960	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$2,961–\$5,919	160	30	17.02	16.39	-0.64	-3.74	17.77	0.75	4.38
\$5,920 or more	160	40	13.60	14.64	1.04	7.67	16.26	2.66	19.57

See notes at end of table.

**Table K-45. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–65	180	130	71.27	70.52	-0.76	-1.06	69.45	-1.83	-2.56
66–84	‡	‡	‡	‡	‡	‡	‡	‡	‡
85–93	110	60	2.47	3.05	0.58	23.46	4.09	1.62	65.45
94 or more	240	60	14.01	9.92	-4.09	-29.20	11.26	-2.75	-19.65
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0	‡	‡	‡	‡	‡	‡	‡	‡	‡
1–36	‡	‡	‡	‡	‡	‡	‡	‡	‡
37–71	‡	‡	‡	‡	‡	‡	‡	‡	‡
72 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	790	150	88.19	93.34	5.15	5.84	92.76	4.57	5.18
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–9	120	130	20.54	1.34	-19.20	-93.47	1.48	-19.06	-92.80
10–24	120	60	33.33	45.18	11.85	35.55	45.22	11.89	35.67
25–82	230	60	28.33	29.47	1.14	4.02	29.05	0.72	2.55
83 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-45. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$0–\$4,816	240	60	29.37	14.32	-15.05	-51.25	13.13	-16.24	-55.29
\$4,817–\$5,920	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$5,921–\$9,373	120	120	8.78	2.33	-6.45	-73.48	3.12	-5.66	-64.44
\$9,374 or more	170	60	36.62	49.60	12.98	35.45	49.44	12.82	34.99
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-46. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = 0.10)			(Effect size = 0.15)	
New England	4,650	1,430	9.93	10.53	0.60	6.00	11.43	1.50	15.12
Mideast	2,330	1,140	20.52	18.00	-2.53	-12.31	18.95	-1.58	-7.69
Great Lakes	1,860	480	14.51	14.65	0.14	1.00	12.88	-1.63	-11.23
Plains	3,700	860	12.24	12.17	-0.07	-0.56	13.00	0.76	6.21
Southeast	4,300	1,360	17.09	16.32	-0.77	-4.50	15.13	-1.96	-11.46
Southwest	560	70	4.34	4.56	0.22	5.03	5.10	0.76	17.47
Rocky Mountains	2,050	310	11.20	13.89	2.68	23.95	13.89	2.68	23.95
Far West	930	290	6.22	5.75	-0.48	-7.64	4.73	-1.49	-23.96
Outlying Areas	1,380	280	3.94	4.14	0.20	5.00	4.89	0.95	24.21
Federal aid status					(Effect size = 0.02)			(Effect size = 0.02)	
Received	14,770	3,860	64.65	65.48	0.83	1.28	65.49	0.84	1.30
Did not receive	6,980	2,360	35.35	34.52	-0.83	-2.35	34.51	-0.84	-2.38
Direct Loan status					(Effect size = 0.02)			(Effect size = #)	
Received	11,730	3,110	52.11	52.97	0.86	1.65	51.94	-0.17	-0.33
Did not receive	10,020	3,100	47.89	47.03	-0.86	-1.80	48.06	0.17	0.36
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.02)			(Effect size = 0.04)	
None	10,020	3,100	47.89	47.03	-0.86	-1.80	48.06	0.17	0.36
\$1–\$5,500	4,990	1,270	21.31	21.79	0.48	2.25	21.19	-0.12	-0.57
\$5,501–\$6,500	1,790	510	7.70	7.63	-0.07	-0.90	7.21	-0.49	-6.43
\$6,501–\$7,500	2,520	680	10.70	11.20	0.50	4.72	10.01	-0.69	-6.47
\$7,501 or more	2,430	660	12.40	12.35	-0.05	-0.43	13.54	1.13	9.15
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	16,390	3,910	65.05	67.55	2.49	3.83	64.55	-0.51	-0.78
24–29	2,220	720	12.84	12.06	-0.78	-6.06	13.57	0.73	5.67
30 or older	3,120	1,030	21.28	20.34	-0.94	-4.41	21.84	0.56	2.61
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-46. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	14,270	630	47.83	57.60	9.77*	20.42	58.55	10.71*	22.40
Did not receive	7,480	730	36.15	42.40	6.26*	17.31	41.45	5.31*	14.69
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	3,830	410	17.09	19.50	2.41*	14.12	16.61	-0.47	-2.75
Did not receive	17,910	3,330	73.89	80.50	6.61*	8.95	83.39	9.50*	12.85
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.06)			(Effect size = 0.02)	
Yes	650	250	4.17	3.05	-1.12	-26.93	3.74	-0.43	-10.43
No	21,100	5,970	95.83	96.95	1.12	1.17	96.26	0.43	0.45
Race/ethnicity					(Effect size = 0.19)			(Effect size = 0.15)	
White	12,390	2,660	54.08	57.97	3.89*	7.20	56.88	2.79	5.17
Black or African American	2,770	800	13.68	14.21	0.53	3.88	14.19	0.51	3.70
Hispanic	3,180	720	14.09	14.58	0.49	3.45	14.83	0.74	5.22
Asian	900	100	4.49	5.17	0.68*	15.14	4.92	0.43	9.64
American Indian or Alaska Native	310	40	0.65	0.63	-0.02	-2.85	0.64	#	-0.50
Native Hawaiian or other Pacific Islander	120	40	0.28	0.22	-0.06	-21.46	0.18	-0.10	-35.25
More than one race	650	170	2.45	2.52	0.07	2.84	2.55	0.10	3.91
Unknown	1,430	1,700	10.28	4.70	-5.58*	-54.29	5.82	-4.46	-43.42
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	9,540	2,390	43.08	42.29	-0.78	-1.82	41.53	-1.55	-3.60
Female	12,210	3,390	56.50	57.71	1.20	2.13	58.47	1.97	3.49
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.02)			(Effect size = 0.11)	
1–1,008	5,290	1,830	12.25	12.84	0.59	4.81	15.76	3.51	28.62
1,009–1,680	5,280	1,630	24.47	24.09	-0.39	-1.58	22.72	-1.75	-7.17
1,681–3,130	5,890	1,140	29.95	30.37	0.42	1.41	30.49	0.54	1.80
3,131 or more	5,280	1,620	33.32	32.70	-0.62	-1.87	31.03	-2.29	-6.88

See notes at end of table.

**Table K-46. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment			
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>	
Major					(Effect size = ‡)				(Effect size = ‡)	
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	3,660	760	14.92	16.03	1.12	7.49	16.21	1.29	8.62	
Social/behavioral sciences	2,260	300	8.17	9.32	1.16*	14.23	9.49	1.32*	16.19	
Life sciences	2,540	290	8.51	9.76	1.26*	14.81	9.14	0.63	7.41	
Physical sciences/mathematics	490	70	2.09	2.48	0.40*	18.95	2.43	0.34	16.27	
Computer/information science	840	100	4.90	5.41	0.51	10.46	5.62	0.72	14.62	
Engineering	280	60	2.02	1.86	-0.17	-8.37	1.94	-0.08	-3.92	
Education	1,170	210	5.48	6.33	0.85*	15.56	5.66	0.18	3.30	
Business/management	4,080	920	17.12	18.97	1.85*	10.80	18.62	1.50	8.73	
Health	2,740	480	14.98	15.76	0.78	5.22	16.51	1.53	10.22	
Vocational/technical	190	70	1.21	1.09	-0.12	-9.60	1.04	-0.17	-14.14	
Other technical/professional	1,970	250	6.78	7.44	0.66	9.66	7.40	0.61	9.04	
Unknown	1,100	2,570	13.80	5.53	-8.31*	-60.17	5.93	-7.87*	-57.03	
Degree program (undergraduate only)					(Effect size = ‡)				(Effect size = ‡)	
Postsecondary award, certificate, or diploma of less than 2 academic years	220	70	1.02	0.85	-0.17	-16.53	0.97	-0.05	-5.32	
Associate's degree	1,900	690	10.93	8.68	-2.26	-20.63	10.14	-0.80	-7.27	
Postsecondary award, certificate, diploma, or degree program	19,200	4,520	84.25	88.86	4.61*	5.48	87.35	3.11*	3.69	
Bachelor's degree or equivalent	430	140	1.62	1.53	-0.09	-5.83	1.48	-0.14	-8.87	
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡	
Pell Grant status					(Effect size = 0.01)				(Effect size = 0.05)	
Received	8,400	2,320	36.45	36.03	-0.42	-1.16	38.66	2.21	6.05	
Did not receive	13,350	3,900	63.55	63.97	0.42	0.67	61.34	-2.21	-3.47	
Total Pell amount received <sup>7</sup>					(Effect size = 0.01)				(Effect size = 0.05)	
None	13,350	3,900	63.55	63.97	0.42	0.67	61.34	-2.21	-3.47	
\$1–\$2,960	2,040	570	9.54	9.58	0.04	0.43	10.58	1.04	10.89	
\$2,961–\$5,919	3,190	860	13.62	13.51	-0.11	-0.79	14.06	0.44	3.23	
\$5,920 or more	3,170	890	13.29	12.93	-0.36	-2.68	14.02	0.73	5.46	

See notes at end of table.



**Table K-46. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = 0.03)		(Effect size = 0.11)		
1–95	6,520	1,740	31.88	31.17	-0.71	-2.22	35.60	3.72	11.68
96–99	6,690	2,350	26.75	26.93	0.18	0.67	27.15	0.40	1.50
100	7,920	1,690	27.80	29.04	1.23	4.43	26.93	-0.87	-3.14
None or unknown	620	450	13.57	12.87	-0.70	-5.17	10.32	-3.25	-23.95
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = 0.09)		(Effect size = 0.10)		
0–128	3,960	1,280	13.01	10.52	-2.49	-19.12	10.15	-2.86	-22.00
129–238	4,170	1,330	19.46	21.27	1.82	9.33	21.46	2.00	10.28
239–373	4,790	1,080	18.57	18.66	0.10	0.52	20.16	1.60	8.61
374 or more	5,630	1,480	25.57	26.96	1.39	5.43	25.08	-0.49	-1.90
Unknown	3,190	1,050	23.40	22.58	-0.81	-3.47	23.15	-0.25	-1.07
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = 0.04)		(Effect size = 0.11)		
0–27	4,140	1,010	14.97	15.61	0.64	4.25	16.23	1.26	8.42
28–46	5,280	1,080	19.56	20.82	1.26	6.43	21.50	1.94	9.89
47–75	4,840	2,120	22.80	22.08	-0.71	-3.13	23.66	0.86	3.78
76 or more	6,840	1,570	29.03	28.54	-0.50	-1.71	28.22	-0.81	-2.79
Unknown	650	450	13.64	12.95	-0.69	-5.02	10.39	-3.25	-23.82

See notes at end of table.

**Table K-46. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = 0.10)			(Effect size = 0.14)	
\$0–\$11,086	4,480	1,310	19.59	16.97	-2.62	-13.36	20.29	0.70	3.58
\$11,087–\$18,758	5,460	1,290	16.96	17.11	0.15	0.90	19.04	2.08	12.29
\$18,759–\$24,538	4,980	2,230	24.34	23.70	-0.64	-2.63	21.01	-3.34	-13.70
\$24,539 or more	6,170	940	25.47	29.26	3.79*	14.87	29.27	3.80	14.91
Unknown	650	450	13.64	12.95	-0.69	-5.02	10.39	-3.25	-23.82

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-47. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	6,220	2,860	19.18	18.54	-0.64	-3.32	18.47	-0.71	-3.72
Mideast	4,470	1,850	22.98	22.37	-0.61	-2.63	23.36	0.38	1.67
Great Lakes	2,090	960	15.12	13.38	-1.75	-11.55	13.33	-1.80	-11.88
Plains	2,430	480	5.94	5.68	-0.26	-4.43	6.19	0.25	4.19
Southeast	4,140	590	19.14	20.47	1.33	6.94	18.24	-0.90	-4.70
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	1,550	330	9.93	10.74	0.80	8.09	11.34	1.40	14.11
Outlying Areas	650	160	1.88	1.84	-0.04	-2.03	2.27	0.39	20.70
Federal aid status					(Effect size = 0.01)			(Effect size = #)	
Received	12,730	4,240	55.72	55.98	0.26	0.47	55.55	-0.17	-0.30
Did not receive	10,080	2,980	44.28	44.02	-0.26	-0.59	44.45	0.17	0.38
Direct Loan status					(Effect size = #)			(Effect size = 0.03)	
Received	10,150	3,590	44.63	44.51	-0.12	-0.27	43.34	-1.29	-2.89
Did not receive	12,670	3,630	55.37	55.49	0.12	0.22	56.66	1.29	2.33
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.01)			(Effect size = 0.03)	
None	12,670	3,630	55.37	55.49	0.12	0.22	56.66	1.29	2.33
\$1–\$5,500	4,330	1,370	18.03	18.18	0.16	0.87	17.57	-0.46	-2.54
\$5,501–\$6,500	1,670	550	6.75	6.80	0.06	0.87	6.48	-0.26	-3.89
\$6,501–\$7,500	2,280	750	9.41	9.25	-0.16	-1.69	8.71	-0.70*	-7.46
\$7,501 or more	1,860	930	10.45	10.27	-0.18	-1.70	10.58	0.13	1.25
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	17,870	4,550	70.56	72.73	2.17	3.08	71.10	0.54	0.76
24–29	2,060	850	10.90	10.95	0.05	0.44	11.56	0.66	6.06
30 or older	2,860	1,250	16.27	16.27	#	0.01	17.29	1.03	6.31
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-47. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	13,720	910	50.75	57.75	7.00*	13.78	56.54	5.78*	11.39
Did not receive	9,090	1,190	38.76	42.25	3.49*	9.00	43.46	4.70*	12.13
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	3,230	600	14.62	15.37	0.75	5.14	13.52	-1.10*	-7.50
Did not receive	19,580	3,320	78.11	84.63	6.52*	8.34	86.48	8.36*	10.71
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = #)			(Effect size = 0.04)	
Yes	620	240	3.66	3.59	-0.07	-1.96	4.36	0.70	19.08
No	22,190	6,980	96.34	96.41	0.07	0.07	95.64	-0.70	-0.73
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	12,940	2,460	50.94	54.43	3.49*	6.85	53.12	2.18	4.29
Black or African American	2,050	660	10.01	10.00	-0.01	-0.07	10.18	0.17	1.68
Hispanic	2,940	630	13.18	13.78	0.60	4.57	14.29	1.11	8.38
Asian	1,910	230	8.55	9.28	0.72*	8.44	9.61	1.06*	12.34
American Indian or Alaska Native	110	40	0.46	0.48	0.02	5.08	0.52	0.06	13.27
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	780	200	2.86	2.79	-0.07	-2.42	2.73	-0.13	-4.57
Unknown	1,750	3,010	13.76	8.95	-4.81*	-34.96	9.24	-4.51*	-32.80
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	9,870	2,530	42.42	44.02	1.60*	3.78	44.16	1.74*	4.10
Female	12,920	4,290	55.62	55.89	0.27	0.48	55.73	0.11	0.19
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.02)			(Effect size = 0.03)	
1–2,454	5,550	2,000	14.18	13.70	-0.48	-3.38	15.10	0.92	6.52
2,455–4,749	6,130	1,340	19.87	19.79	-0.08	-0.40	19.28	-0.59	-2.97
4,750–8,642	5,600	2,120	28.56	28.18	-0.38	-1.34	27.97	-0.60	-2.09
8,643 or more	5,530	1,760	37.39	38.33	0.94	2.52	37.65	0.26	0.70

See notes at end of table.

**Table K-47. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major			(Effect size = ‡)				(Effect size = ‡)		
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	3,440	480	13.67	15.56	1.86*	13.60	16.14	2.47*	18.03
Social/behavioral sciences	2,790	580	11.91	12.99	1.06*	8.88	13.62	1.70*	14.29
Life sciences	2,610	480	9.51	10.05	0.53	5.52	9.64	0.13	1.36
Physical sciences/mathematics	530	70	2.12	2.26	0.14	6.62	2.28	0.16	7.35
Computer/information science	820	180	4.38	4.59	0.21	4.78	4.47	0.09	1.99
Engineering	1,190	130	5.86	6.52	0.65*	11.17	6.19	0.33	5.61
Education	900	160	3.28	3.55	0.27*	8.27	3.55	0.27	8.17
Business/management	3,620	710	17.82	19.12	1.29*	7.22	18.61	0.79	4.41
Health	2,640	520	10.95	11.33	0.38	3.45	11.30	0.35	3.23
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	1,950	380	8.82	9.54	0.71*	8.02	9.86	1.03*	11.70
Unknown	1,270	3,390	11.25	4.01	-7.14*	-63.53	3.94	-7.31*	-65.00
Degree program (undergraduate only)			(Effect size = 0.19)				(Effect size = 0.19)		
Postsecondary award, certificate, or diploma of less than 2 academic years	120	60	0.64	0.60	-0.04	-5.78	0.65	0.01	1.96
Associate's degree	510	310	3.63	3.48	-0.15	-4.23	3.66	0.02	0.65
Postsecondary award, certificate, diploma, or degree program	21,180	5,420	89.04	92.54	3.50*	3.93	92.38	3.34*	3.75
Bachelor's degree or equivalent	970	150	3.00	3.27	0.26	8.81	3.22	0.21	7.11
Unknown	30	1,280	3.68	0.11	-3.58*	-97.10	0.09	-3.59*	-97.51
Pell Grant status			(Effect size = #)				(Effect size = 0.02)		
Received	6,080	2,160	27.62	27.57	-0.05	-0.18	28.68	1.07	3.87
Did not receive	16,730	5,060	72.38	72.43	0.05	0.07	71.32	-1.07	-1.48
Total Pell amount received <sup>7</sup>			(Effect size = 0.01)				(Effect size = 0.03)		
None	16,730	5,060	72.38	72.43	0.05	0.07	71.32	-1.07	-1.48
\$1–\$2,970	1,850	700	9.59	9.71	0.12	1.30	9.74	0.15	1.59
\$2,971–\$5,919	1,960	690	8.53	8.52	#	-0.06	9.08	0.55*	6.42
\$5,920 or more	2,280	770	9.50	9.33	-0.17	-1.79	9.87	0.37	3.87

See notes at end of table.

**Table K-47. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = 0.05)			(Effect size = 0.07)	
1–87	8,350	2,920	44.67	43.72	-0.95	-2.12	44.35	-0.32	-0.71
88–98	7,800	1,640	29.76	31.86	2.10	7.07	32.36	2.60	8.74
99 or more	6,510	2,410	24.13	23.13	-1.00	-4.16	22.00	-2.13	-8.82
None or unknown	150	250	1.44	1.29	-0.15	-10.70	1.29	-0.15	-10.73
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = 0.07)			(Effect size = 0.02)	
0–224	3,280	1,420	10.55	9.25	-1.30	-12.31	10.17	-0.38	-3.62
225–453	4,880	1,570	11.98	11.01	-0.97	-8.06	11.66	-0.32	-2.64
454–790	6,430	1,150	26.33	28.11	1.78	6.77	26.75	0.42	1.61
791 or more	7,450	2,050	44.71	45.77	1.06	2.37	44.94	0.23	0.52
Unknown	770	1,040	6.44	5.86	-0.57	-8.93	6.48	0.04	0.65
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = 0.04)			(Effect size = 0.04)	
0–48	5,400	860	12.04	11.89	-0.15	-1.26	12.72	0.68	5.65
49–74	4,380	1,880	17.34	17.47	0.13	0.73	17.62	0.28	1.59
75–132	6,580	850	24.58	26.19	1.61	6.53	25.31	0.72	2.95
133 or more	6,260	3,380	44.50	43.06	-1.44	-3.24	42.96	-1.53	-3.44
Unknown	190	260	1.54	1.40	-0.14	-9.12	1.39	-0.15	-9.67

See notes at end of table.

**Table K-47. Undergraduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = 0.04)			(Effect size = 0.03)	
\$0–\$15,552	5,180	1,740	26.94	27.19	0.26	0.95	27.67	0.73	2.70
\$15,553–\$21,345	3,930	1,610	17.73	18.42	0.69	3.90	18.03	0.31	1.74
\$21,346–\$26,822	6,050	1,340	21.40	22.04	0.64	3.01	21.80	0.40	1.86
\$26,823 or more	7,510	2,270	32.49	31.06	-1.44	-4.42	31.21	-1.28	-3.94
Unknown	150	250	1.44	1.29	-0.15	-10.70	1.29	-0.15	-10.73

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-48. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit less-than-2-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	630	510	4.15	2.88	-1.27	-30.69	4.07	-0.08	-1.99
Mideast	760	620	26.45	17.80	-8.64	-32.68	16.83	-9.62	-36.37
Great Lakes	220	70	10.63	17.38	6.75	63.53	15.32	4.69	44.18
Plains	90	130	2.26	1.25	-1.01	-44.66	1.07	-1.18	-52.43
Southeast	1,350	290	26.95	28.67	1.72	6.38	30.83	3.88	14.40
Southwest	170	110	1.54	1.48	-0.05	-3.50	1.58	0.04	2.68
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	340	350	21.80	23.45	1.65	7.56	22.50	0.70	3.22
Outlying Areas	410	100	5.94	6.56	0.62	10.51	7.44	1.50	25.22
Federal aid status					(Effect size = 0.07)			(Effect size = 0.09)	
Received	3,010	1,340	51.56	55.15	3.58	6.95	56.11	4.55	8.82
Did not receive	1,050	830	48.44	44.85	-3.58	-7.40	43.89	-4.55	-9.38
Direct Loan status					(Effect size = 0.18)			(Effect size = 0.17)	
Received	2,190	940	29.60	37.91	8.32	28.10	37.45	7.85	26.51
Did not receive	1,870	1,230	70.40	62.09	-8.32	-11.81	62.55	-7.85	-11.15
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.19)			(Effect size = 0.18)	
None	1,870	1,230	70.40	62.09	-8.32	-11.81	62.55	-7.85	-11.15
\$1–\$3,979	610	180	7.02	9.54	2.52*	35.85	9.30	2.28*	32.47
\$3,980–\$5,535	520	260	7.44	9.13	1.69	22.71	9.19	1.75	23.49
\$5,536–\$9,500	900	390	12.17	16.19	4.02*	33.01	16.11	3.94*	32.38
\$9,501 or more	170	110	2.96	3.06	0.09	3.09	2.84	-0.12	-4.10
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	1,990	970	36.90	43.50	6.61	17.91	43.40	6.50	17.62
24–29	940	480	19.36	23.01	3.65	18.88	23.43	4.08	21.05
30 or older	1,140	480	32.06	33.49	1.42	4.44	33.17	1.11	3.45
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-48. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	260	90	5.99	7.52	1.54	25.65	6.87	0.89	14.80
Did not receive	3,810	610	73.65	92.48	18.83	25.57	93.13	19.48*	26.45
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	100	50	1.04	1.13	0.09	8.66	1.37	0.33	31.75
Did not receive	3,970	1,350	82.55	98.87	16.32	19.77	98.63	16.08	19.48
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.02)			(Effect size = 0.03)	
Yes	160	60	2.54	2.86	0.32	12.65	3.05	0.51	19.93
No	3,910	2,110	97.46	97.14	-0.32	-0.33	96.95	-0.51	-0.52
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	1,870	430	23.00	34.54	11.55*	50.20	32.92	9.92*	43.15
Black or African American	980	540	18.62	24.16	5.54	29.74	23.27	4.65	24.95
Hispanic	970	380	28.64	25.66	-2.98	-10.40	29.94	1.30	4.55
Asian	120	30	11.47	12.57	1.10	9.59	11.15	-0.32	-2.77
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	60	750	17.12	1.49	-15.62	-91.28	1.34	-15.78	-92.17
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	950	520	27.02	20.67	-6.35	-23.51	24.67	-2.35	-8.71
Female	3,110	1,430	61.58	79.33	17.75	28.83	75.33	13.75	22.33
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.37)			(Effect size = 0.25)	
1–143	1,190	420	18.33	10.26	-8.07	-44.03	11.79	-6.53	-35.66
144–299	1,000	550	15.94	23.04	7.09	44.49	21.99	6.04*	37.90
300–450	1,160	420	37.80	48.67	10.87	28.75	43.41	5.61	14.84
451 or more	720	790	27.93	18.04	-9.89	-35.43	22.81	-5.12	-18.32

See notes at end of table.

**Table K-48. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major					(Effect size = ‡)			(Effect size = ‡)	
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	1,240	530	16.04	21.26	5.11	31.84	21.77	5.73	35.70
Vocational/technical	520	150	12.39	9.99	-2.35	-18.95	11.93	-0.46	-3.75
Other technical/professional	2,080	470	45.83	63.04	16.85*	36.78	58.53	12.71	27.73
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree program (undergraduate only)					(Effect size = ‡)			(Effect size = ‡)	
Postsecondary award, certificate, or diploma of less than 2 academic years	3,920	1,760	83.92	93.72	9.80	11.67	94.21	10.29	12.26
Associate's degree	‡	‡	‡	‡	‡	‡	‡	‡	‡
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	120	30	2.55	4.21	1.66	64.91	3.97	1.42	55.76
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status					(Effect size = 0.02)			(Effect size = 0.04)	
Received	2,520	1,090	44.18	44.99	0.81	1.84	46.40	2.22	5.03
Did not receive	1,550	1,080	55.82	55.01	-0.81	-1.45	53.60	-2.22	-3.98

See notes at end of table.

**Table K-48. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total Pell amount received <sup>7</sup>					(Effect size = 0.03)			(Effect size = 0.06)	
None	1,550	1,080	55.82	55.01	-0.81	-1.45	53.60	-2.22	-3.98
\$1–\$2,960	700	260	12.00	12.95	0.94	7.84	12.99	0.98	8.19
\$2,961–\$5,919	1,060	480	19.73	19.51	-0.22	-1.10	19.55	-0.18	-0.90
\$5,920 or more	760	350	12.45	12.54	0.09	0.70	13.87	1.42	11.39
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–61	840	1,040	43.69	36.58	-7.11	-16.27	33.32	-10.36	-23.72
62–71	880	380	15.59	19.85	4.26	27.32	15.77	0.17	1.12
72–84	1,120	490	14.44	14.78	0.33	2.32	17.30	2.85	19.76
85 or more	1,160	230	25.76	27.88	2.12	8.24	32.32	6.56	25.49
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = 0.22)			(Effect size = 0.23)	
0–12	840	230	6.00	7.89	1.89	31.49	9.55	3.55	59.12
13–27	1,020	550	13.47	18.76	5.29	39.23	18.54	5.06	37.56
28–61	950	410	29.61	28.55	-1.06	-3.58	25.17	-4.44	-15.01
62 or more	1,150	930	31.72	23.55	-8.17	-25.75	26.79	-4.92	-15.52
Unknown	100	50	19.20	21.25	2.05	10.68	19.95	0.76	3.94

See notes at end of table.

**Table K-48. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$0–\$4,015	580	340	40.52	38.47	-2.05	-5.06	35.26	-5.25	-12.97
\$4,016–\$4,511	1,150	500	14.21	13.12	-1.09	-7.66	13.15	-1.06	-7.47
\$4,512–\$5,087	1,110	740	13.03	15.89	2.86	21.92	16.13	3.10	23.79
\$5,088 or more	1,170	570	31.72	31.61	-0.10	-0.33	34.16	2.45	7.71
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-49. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 2-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = 0.59)			(Effect size = 0.53)	
New England	40	200	1.66	1.10	-0.55	-33.41	2.26	0.60	36.15
Mideast	250	460	18.14	29.48	11.34	62.51	32.01	13.87	76.43
Great Lakes	60	60	3.64	9.37	5.74	157.82	5.94	2.31	63.52
Plains	390	330	3.40	3.81	0.41	12.16	2.92	-0.48	-14.07
Southeast	1,300	330	25.32	32.37	7.04	27.82	31.13	5.81	22.94
Southwest	220	180	13.24	3.97	-9.26	-69.98	4.44	-8.80	-66.45
Rocky Mountains	540	540	25.07	13.10	-11.97	-47.76	14.43	-10.65	-42.46
Far West	370	290	2.36	4.08	1.72	73.00	3.92	1.56	66.11
Outlying Areas	50	450	7.18	2.71	-4.47	-62.24	2.95	-4.22	-58.87
Federal aid status					(Effect size = 0.33)			(Effect size = 0.30)	
Received	2,130	2,080	76.10	62.03	-14.07*	-18.49	63.50	-12.60*	-16.56
Did not receive	1,080	760	23.90	37.97	14.07*	58.89	36.50	12.60*	52.74
Direct Loan status					(Effect size = 0.12)			(Effect size = 0.08)	
Received	1,600	1,320	53.25	47.41	-5.84	-10.97	49.18	-4.07	-7.65
Did not receive	1,600	1,510	46.75	52.59	5.84	12.49	50.82	4.07	8.71
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.16)			(Effect size = 0.12)	
None	1,600	1,510	46.75	52.59	5.84	12.49	50.82	4.07	8.71
\$1–\$3,972	440	290	10.03	11.68	1.65	16.44	10.13	0.10	1.00
\$3,973–\$6,500	400	360	12.50	10.09	-2.41*	-19.29	9.33	-3.17*	-25.39
\$6,501–\$9,500	480	410	19.51	14.83	-4.68	-23.97	17.27	-2.24	-11.47
\$9,501 or more	280	260	11.21	10.81	-0.40	-3.57	12.45	1.24	11.05
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	1,510	1,280	42.70	42.38	-0.32	-0.74	38.30	-4.40	-10.31
24–29	820	670	25.72	27.51	1.80	6.98	28.76	3.04	11.83
30 or older	880	760	30.55	30.09	-0.46	-1.51	32.93	2.38	7.80
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-49. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	240	330	11.97	10.88	-1.09	-9.13	18.49	6.51	54.39
Did not receive	2,960	1,150	54.68	89.12	34.44*	62.97	81.51	26.83*	49.06
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	190	150	7.19	10.99	3.80	52.76	10.36	3.17	44.06
Did not receive	3,020	1,930	73.93	89.01	15.08*	20.40	89.64	15.71*	21.24
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.13)			(Effect size = 0.12)	
Yes	140	180	7.81	4.24	-3.57	-45.75	4.61	-3.19	-40.89
No	3,070	2,660	92.19	95.76	3.57	3.87	95.39	3.19	3.46
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	1,590	730	33.61	42.85	9.24	27.49	39.45	5.84	17.39
Black or African American	670	290	18.16	22.89	4.73	26.03	26.08	7.92	43.62
Hispanic	540	780	23.46	20.35	-3.11	-13.27	18.79	-4.67	-19.91
Asian	70	40	1.43	2.65	1.23*	85.77	2.41	0.98*	68.40
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	220	940	21.33	8.37	-12.96*	-60.76	11.06	-10.27	-48.15
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	550	920	35.40	23.50	-11.90*	-33.63	29.76	-5.64	-15.92
Female	2,660	1,800	63.88	76.50	12.62*	19.76	70.24	6.35	9.95
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.50)			(Effect size = 0.29)	
1–233	890	660	10.77	17.55	6.77	62.86	15.00	4.23	39.23
234–576	550	1,010	20.12	18.00	-2.13	-10.56	13.59	-6.53	-32.45
577–1,226	710	750	39.84	18.73	-21.11*	-52.99	32.26	-7.59	-19.05
1,227 or more	1,060	420	29.26	45.72	16.47	56.27	39.15	9.89	33.81

See notes at end of table.

**Table K-49. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major					(Effect size = ‡)			(Effect size = ‡)	
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	30	110	1.22	2.50	1.26	102.72	4.02	2.80	228.81
Engineering	50	90	3.66	3.28	-0.37	-10.13	3.33	-0.33	-9.02
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	160	70	2.05	4.28	2.20*	107.37	4.51	2.47	120.72
Health	1,700	740	37.79	46.54	8.61	22.79	49.80	12.01	31.78
Vocational/technical	60	420	15.90	6.13	-9.61*	-60.45	6.45	-9.45*	-59.43
Other technical/professional	1,020	360	14.76	29.00	14.01*	94.94	25.52	10.76*	72.93
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree program (undergraduate only)					(Effect size = ‡)			(Effect size = ‡)	
Postsecondary award, certificate, or diploma of less than 2 academic years	2,410	2,050	68.24	67.57	-0.67	-0.98	64.72	-3.52	-5.16
Associate's degree	680	400	22.76	25.89	3.13	13.77	30.23	7.47	32.83
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	100	60	3.14	6.13	2.99	95.34	4.71	1.58	50.25
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status					(Effect size = 0.29)			(Effect size = 0.23)	
Received	1,760	1,750	62.86	48.61	-14.25*	-22.67	51.61	-11.26*	-17.91
Did not receive	1,440	1,080	37.14	51.39	14.25*	38.38	48.39	11.26*	30.31
Total Pell amount received <sup>7</sup>					(Effect size = 0.32)			(Effect size = 0.23)	
None	1,440	1,080	37.14	51.39	14.25*	38.38	48.39	11.26*	30.31
\$1–\$2,960	550	410	16.86	15.57	-1.28	-7.60	13.63	-3.23	-19.16
\$2,961–\$5,919	700	620	21.53	19.31	-2.22	-10.32	16.95	-4.58	-21.28
\$5,920 or more	510	720	24.48	13.73	-10.75*	-43.91	21.03	-3.45	-14.08

See notes at end of table.

**Table K-49. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–57	1,120	720	27.07	30.09	3.03	11.19	23.84	-3.22	-11.90
58–73	830	470	23.26	35.43	12.17	52.32	29.39	6.12	26.32
74–85	390	730	19.37	14.08	-5.29	-27.33	14.74	-4.63	-23.90
86 or more	830	920	30.28	20.34	-9.94	-32.82	31.96	1.68	5.55
None or unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
9–25	‡	‡	‡	‡	‡	‡	‡	‡	‡
26–87	‡	‡	‡	‡	‡	‡	‡	‡	‡
88 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	3,130	2,710	93.43	92.60	-0.82	-0.88	85.82	-7.61	-8.14
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–15	560	350	19.37	22.61	3.24	16.71	18.29	-1.08	-5.58
16–33	360	1,010	12.52	5.13	-7.39	-59.02	4.22	-8.31*	-66.32
34–90	830	990	44.73	31.04	-13.69	-30.61	42.58	-2.15	-4.80
91 or more	1,010	490	20.99	34.24	13.25	63.10	30.16	9.17	43.68
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-49. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 2-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
\$0–\$4,092	910	340	14.60	22.13	7.54	51.61	19.28	4.68	32.07
\$4,093–\$4,862	1,060	500	16.71	25.93	9.22	55.17	25.14	8.44	50.49
\$4,863–\$5,519	430	800	27.16	20.31	-6.85	-25.21	23.45	-3.70	-13.64
\$5,520 or more	360	1,190	39.15	24.64	-14.51	-37.05	27.36	-11.78	-30.10
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-50. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 4-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>			(Effect size = ‡)				(Effect size = ‡)		
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	370	60	4.02	4.44	0.42	10.50	4.62	0.60	15.02
Great Lakes	480	70	8.57	9.89	1.32	15.39	10.15	1.58	18.44
Plains	700	830	10.05	5.80	-4.26	-42.34	6.40	-3.66	-36.38
Southeast	2,510	250	29.23	33.78	4.56	15.59	33.32	4.09	13.99
Southwest	1,080	200	25.22	23.02	-2.20	-8.72	25.71	0.50	1.96
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	670	100	18.21	20.48	2.26	12.42	16.49	-1.73	-9.48
Outlying Areas	450	390	3.12	1.46	-1.65	-53.10	2.08	-1.04	-33.28
Federal aid status			(Effect size = 0.05)				(Effect size = 0.01)		
Received	4,970	1,630	69.87	67.80	-2.07	-2.96	70.24	0.37	0.53
Did not receive	1,680	460	30.13	32.20	2.07	6.86	29.76	-0.37	-1.24
Direct Loan status			(Effect size = 0.07)				(Effect size = #)		
Received	3,260	1,200	47.58	44.18	-3.40	-7.15	47.78	0.20	0.42
Did not receive	3,390	900	52.42	55.82	3.40	6.49	52.22	-0.20	-0.38
Total Direct Loan amount received <sup>5</sup>			(Effect size = 0.07)				(Effect size = 0.05)		
None	3,390	900	52.42	55.82	3.40	6.49	52.22	-0.20	-0.38
\$1–\$4,478	730	390	11.26	9.61	-1.65	-14.63	10.17	-1.09	-9.66
\$4,479–\$7,500	870	260	11.41	10.86	-0.55	-4.82	12.55	1.14	10.02
\$7,501–\$11,243	810	290	12.57	11.71	-0.86	-6.83	12.09	-0.48	-3.82
\$11,244 or more	850	270	12.34	11.99	-0.35	-2.83	12.97	0.62	5.04
Age as of December 31, 2017			(Effect size = ‡)				(Effect size = ‡)		
15–23	1,740	490	18.20	17.28	-0.91	-5.01	19.74	1.55	8.51
24–29	1,710	550	26.89	26.91	0.02	0.08	25.73	-1.17	-4.34
30 or older	3,180	990	54.08	55.34	1.26	2.34	54.17	0.09	0.17
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-50. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	2,390	150	33.48	37.00	3.52	10.50	34.71	1.23	3.67
Did not receive	4,260	510	55.35	63.00	7.65*	13.82	65.29	9.94	17.95
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	300	60	3.02	3.00	-0.02	-0.53	3.35	0.33	10.84
Did not receive	6,340	1,530	94.04	97.00	2.95	3.14	96.65	2.61	2.77
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.01)			(Effect size = 0.01)	
Yes	950	230	12.16	12.34	0.18	1.50	11.85	-0.30	-2.48
No	5,700	1,870	87.84	87.66	-0.18	-0.21	88.15	0.30	0.34
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	2,540	700	36.13	36.28	0.14	0.40	34.51	-1.62	-4.49
Black or African American	1,430	320	20.79	21.57	0.79	3.78	22.10	1.31	6.31
Hispanic	1,320	350	16.46	16.32	-0.13	-0.81	18.09	1.64	9.95
Asian	150	30	2.52	2.80	0.27	10.84	2.69	0.17	6.80
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	1,020	670	20.98	19.75	-1.23	-5.88	19.62	-1.36	-6.46
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	2,540	600	36.50	38.15	1.65	4.52	36.09	-0.41	-1.11
Female	4,090	1,490	63.11	61.38	-1.74	-2.75	63.54	0.43	0.67
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>6</sup>					(Effect size = 0.06)			(Effect size = 0.19)	
1–561	1,830	370	5.46	5.56	0.11	1.93	8.85	3.39	62.19
562–2,891	1,700	580	12.14	10.81	-1.33	-10.95	15.01	2.87	23.66
2,892–25,053	1,710	440	28.22	30.61	2.39	8.46	27.83	-0.39	-1.38
25,054 or more	1,400	710	54.19	53.02	-1.16	-2.15	48.31	-5.87	-10.84

See notes at end of table.

**Table K-50. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Major					(Effect size = ‡)			(Effect size = ‡)	
Undecided	‡	‡	‡	‡	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	360	60	3.79	3.94	0.15	4.03	3.59	-0.20	-5.38
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡	‡	‡	‡	‡
Computer/information science	500	80	6.23	6.45	0.22	3.53	6.62	0.38	6.17
Engineering	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	90	70	6.34	5.49	-0.85	-13.42	5.24	-1.10	-17.35
Business/management	1,500	290	24.39	25.46	1.07	4.40	24.43	0.04	0.17
Health	2,110	760	28.64	27.98	-0.66	-2.30	30.28	1.64	5.72
Vocational/technical	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other technical/professional	970	230	14.94	15.72	0.78	5.23	15.14	0.20	1.37
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree program (undergraduate only)					(Effect size = ‡)			(Effect size = ‡)	
Postsecondary award, certificate, or diploma of less than 2 academic years	470	160	5.41	4.97	-0.44	-8.18	6.33	0.92	17.02
Associate's degree	1,840	550	16.72	16.54	-0.18	-1.05	19.47	2.76	16.48
Postsecondary award, certificate, diploma, or degree program	4,240	1,320	75.98	76.86	0.88	1.15	72.78	-3.20	-4.21
Bachelor's degree or equivalent	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Pell Grant status					(Effect size = 0.07)			(Effect size = 0.01)	
Received	3,370	1,290	45.94	42.42	-3.51	-7.65	46.19	0.25	0.55
Did not receive	3,280	810	54.06	57.58	3.51	6.50	53.81	-0.25	-0.47
Total Pell amount received <sup>7</sup>					(Effect size = 0.08)			(Effect size = 0.03)	
None	3,280	810	54.06	57.58	3.51	6.50	53.81	-0.25	-0.47
\$1–\$2,960	980	430	13.09	11.49	-1.61	-12.27	12.42	-0.67	-5.14
\$2,961–\$5,919	1,280	430	17.67	17.33	-0.35	-1.96	18.57	0.89	5.06
\$5,920 or more	1,120	430	15.17	13.61	-1.56	-10.29	15.20	0.03	0.20

See notes at end of table.

**Table K-50. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>6</sup>					(Effect size = 0.25)			(Effect size = 0.26)	
1–60	580	840	18.05	12.24	-5.81	-32.20	14.31	-3.74	-20.72
61–86	1,590	50	25.98	32.77	6.79	26.14	34.42	8.44*	32.51
87–95	2,090	300	34.64	39.75	5.12	14.77	35.09	0.46	1.32
96 or more	960	450	15.45	9.96	-5.49	-35.52	8.98	-6.47	-41.86
None or unknown	1,430	460	5.88	5.28	-0.61	-10.30	7.19	1.31	22.26
Number of full-time, first-time undergraduate students living on campus <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–11	‡	‡	‡	‡	‡	‡	‡	‡	‡
12–97	‡	‡	‡	‡	‡	‡	‡	‡	‡
98–139	‡	‡	‡	‡	‡	‡	‡	‡	‡
140 or more	190	190	9.65	3.36	-6.29	-65.19	3.36	-6.29	-65.14
Unknown	6,130	1,720	89.34	95.85	6.51	7.29	95.80	6.46	7.23
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>6</sup>					(Effect size = 0.08)			(Effect size = 0.12)	
0–4	870	630	16.91	14.36	-2.55	-15.06	13.16	-3.75	-22.19
5–19	320	60	2.33	2.85	0.53	22.71	2.53	0.21	8.94
20–91	1,740	370	15.97	16.79	0.82	5.11	17.50	1.53	9.59
92 or more	2,230	560	58.44	60.13	1.68	2.88	58.70	0.26	0.45
Unknown	1,490	460	6.35	5.87	-0.48	-7.58	8.10	1.75	27.53

See notes at end of table.

**Table K-50. Undergraduate student-level nonresponse bias analysis for select variables for students in private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Average amount of grant and scholarship aid received <sup>6</sup>					(Effect size = 0.14)			(Effect size = 0.23)	
\$0–\$4,597	950	710	32.20	29.42	-2.78	-8.64	26.26	-5.93	-18.43
\$4,598–\$5,571	690	110	15.91	19.71	3.81	23.94	22.99	7.09	44.56
\$5,572–\$7,199	2,070	260	19.05	21.97	2.92	15.34	20.80	1.75	9.20
\$7,200 or more	1,300	460	24.90	21.82	-3.08	-12.37	20.77	-4.13	-16.59
Unknown	1,640	560	7.95	7.08	-0.87	-10.93	9.18	1.22	15.39

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean and the weighted full-sample mean, using the student base weight.<sup>2</sup> Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.<sup>7</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-51. Undergraduate student-level differences between means before and after poststratification for select variables for all students: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Control and level of institution					
Public less-than-2-year	0.37	0.34	0.38	-0.01	-0.04
Public 2-year	34.03	34.05	32.22	1.81*	1.83
Public 4-year, non-doctorate-granting, primarily subbaccalaureate	6.93	7.19	6.99	-0.06	0.20
Public 4-year, non-doctorate-granting, primarily baccalaureate	5.14	5.17	5.56	-0.42*	-0.39
Public 4-year, doctorate-granting	29.42	28.95	28.36	1.06*	0.59
Private nonprofit less-than-4-year	0.39	0.47	0.50	-0.11	-0.03
Private nonprofit 4-year, non-doctorate-granting	7.37	6.89	6.85	0.52*	0.04
Private nonprofit 4-year, doctorate-granting	9.90	9.54	9.99	-0.09	-0.45
Private for-profit less-than-2-year	1.11	1.37	1.70	-0.59*	-0.33
Private for-profit 2-year	0.89	1.64	2.03	-1.14*	-0.39
Private for-profit 4-year	4.45	4.38	5.43	-0.98*	-1.05
State, control, and level of institution					
Alabama					
Public 2-year	0.44	0.44	0.55	-0.11*	-0.11
Public 4-year	0.72	0.72	0.73	-0.01	-0.01
Other	0.30	0.30	0.33	-0.03	-0.03
Alaska					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.18	0.18	0.21	-0.03	-0.03
Other	#	#	0.02	#	#
Arizona					
Public 2-year	1.05	1.05	1.16	-0.11*	-0.11*
Public 4-year	‡	‡	‡	‡	‡
Other	1.11	1.11	1.26	-0.15	-0.15
Arkansas					
Public 2-year	0.25	0.25	0.24	0.01	0.01
Public 4-year	0.44	0.44	0.42	0.02	0.02
Other	0.09	0.09	0.11	-0.02	-0.02
California					
Public 2-year	7.99	7.99	5.69	2.30*	2.30*
Public 4-year	5.09	5.09	4.20	0.89*	0.89
Other	2.16	2.16	2.30	-0.14	-0.14
Colorado					
Public 2-year	0.36	0.36	0.32	0.04*	0.04
Public 4-year	1.00	1.00	1.04	-0.04	-0.04
Other	0.32	0.32	0.53	-0.21*	-0.21*
Connecticut					
Public 2-year	0.31	0.31	0.26	0.05*	0.05
Public 4-year	0.29	0.29	0.34	-0.05*	-0.05
Other	0.43	0.43	0.40	0.03	0.03
Delaware					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.27	0.22	0.20	0.07	0.02
Other	0.02	0.07	0.09	-0.07*	-0.02

See notes at end of table.

**Table K-51. Undergraduate student-level differences between means before and after poststratification for select variables for all students: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
District of Columbia					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.03	0.03	0.04	-0.01	-0.01
Other	0.30	0.30	0.28	0.02	0.02
Florida					
Public 2-year	0.32	0.32	0.41	-0.09	-0.09
Public 4-year	4.24	4.24	4.48	-0.24	-0.24
Other	1.46	1.46	1.78	-0.32	-0.32
Georgia					
Public 2-year	0.76	0.76	0.88	-0.12*	-0.12
Public 4-year	1.62	1.62	1.58	0.04	0.04
Other	0.50	0.50	0.68	-0.18	-0.18
Hawaii					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.06	0.06	0.07	-0.01	-0.01
Idaho					
Public 2-year	0.11	0.11	0.14	-0.03	-0.03
Public 4-year	0.21	0.21	0.22	-0.01	-0.01
Other	0.40	0.40	0.30	0.10	0.10
Illinois					
Public 2-year	1.75	1.75	2.28	-0.53*	-0.53*
Public 4-year	0.77	0.77	0.72	0.05	0.05
Other	1.20	1.20	1.24	-0.04	-0.04
Indiana					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.97	0.91	0.89	0.08	0.02
Other	0.27	0.44	0.46	-0.19	-0.02
Iowa					
Public 2-year	0.40	0.40	0.40	#	#
Public 4-year	‡	‡	‡	‡	‡
Other	0.47	0.47	0.50	-0.03	-0.03
Kansas					
Public 2-year	0.46	0.46	0.51	-0.05*	-0.05
Public 4-year	‡	‡	‡	‡	‡
Other	0.14	0.14	0.18	-0.04	-0.04
Kentucky					
Public 2-year	0.36	0.36	0.48	-0.12*	-0.12
Public 4-year	0.52	0.52	0.52	#	#
Other	0.19	0.19	0.23	-0.04	-0.04
Louisiana					
Public 2-year	0.38	0.38	0.35	0.03	0.03
Public 4-year	0.62	0.62	0.60	0.02	0.02
Other	0.22	0.22	0.23	-0.01	-0.01
Maine					
Public 2-year	0.12	0.09	0.10	0.02	-0.01*
Public 4-year	0.14	0.15	0.19	-0.05	-0.04
Other	0.07	0.10	0.08	-0.01	0.02

See notes at end of table.



**Table K-51. Undergraduate student-level differences between means before and after poststratification for select variables for all students: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Maryland					
Public 2-year	0.75	0.75	0.62	0.13	0.13
Public 4-year	0.84	0.84	0.90	-0.06	-0.06
Other	0.23	0.23	0.28	-0.05	-0.05
Massachusetts					
Public 2-year	0.53	0.53	0.63	-0.10	-0.10
Public 4-year	0.59	0.59	0.59	#	#
Other	1.13	1.13	1.14	-0.01	-0.01
Michigan					
Public 2-year	0.92	0.92	1.03	-0.11*	-0.11
Public 4-year	1.49	1.49	1.42	0.07	0.07
Other	0.41	0.41	0.40	0.01	0.01
Minnesota					
Public 2-year	0.68	0.68	0.66	0.02*	0.02
Public 4-year	0.54	0.54	0.56	-0.02	-0.02
Other	0.52	0.52	0.50	0.02	0.02
Mississippi					
Public 2-year	0.41	0.41	0.47	-0.06*	-0.06
Public 4-year	0.35	0.35	0.36	-0.01	-0.01
Other	0.09	0.09	0.13	-0.04*	-0.04*
Missouri					
Public 2-year	0.54	0.54	0.41	0.13	0.13
Public 4-year	0.62	0.62	0.68	-0.06*	-0.06
Other	0.58	0.58	0.62	-0.04	-0.04
Montana					
Public 2-year	0.04	0.04	0.04	#	#
Public 4-year	0.19	0.19	0.21	-0.02	-0.02
Other	0.03	0.03	0.05	-0.02	-0.02
Nebraska					
Public 2-year	0.24	0.22	0.24	#	-0.02
Public 4-year	‡	‡	‡	‡	‡
Other	0.08	0.13	0.11	-0.03	0.02
Nevada					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.54	0.54	0.59	-0.05*	-0.05
Other	0.06	0.06	0.19	-0.13	-0.13
New Hampshire					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.19	0.14	0.14	0.05*	#
Other	0.71	0.67	0.71	#	-0.04
New Jersey					
Public 2-year	0.93	0.93	0.92	0.01	0.01
Public 4-year	0.91	0.91	0.94	-0.03	-0.03
Other	0.45	0.45	0.48	-0.03	-0.03
New Mexico					
Public 2-year	0.35	0.35	0.39	-0.04	-0.04
Public 4-year	0.26	0.26	0.23	0.03	0.03
Other	0.02	0.02	0.05	-0.03	-0.03

See notes at end of table.

**Table K-51. Undergraduate student-level differences between means before and after poststratification for select variables for all students: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
New York					
Public 2-year	1.63	1.63	1.82	-0.19*	-0.19
Public 4-year	1.99	1.99	2.16	-0.17*	-0.17
Other	2.13	2.13	2.28	-0.15	-0.15
North Carolina					
Public 2-year	1.16	1.16	0.63	0.53*	0.53*
Public 4-year	1.08	1.08	0.97	0.11	0.11
Other	0.48	0.48	0.42	0.06	0.06
North Dakota					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.19	0.19	0.21	-0.02	-0.02
Other	0.03	0.03	0.05	-0.02	-0.02
Ohio					
Public 2-year	1.01	1.01	1.07	-0.06	-0.06
Public 4-year	1.33	1.33	1.29	0.04	0.04
Other	0.81	0.81	0.85	-0.04	-0.04
Oklahoma					
Public 2-year	0.37	0.37	0.43	-0.06	-0.06
Public 4-year	0.55	0.55	0.51	0.04	0.04
Other	0.12	0.12	0.11	0.01	0.01
Oregon					
Public 2-year	0.55	0.55	0.68	-0.13	-0.13
Public 4-year	0.45	0.45	0.48	-0.03	-0.03
Other	0.15	0.15	0.19	-0.04*	-0.04
Pennsylvania					
Public 2-year	0.79	0.79	0.82	-0.03	-0.03
Public 4-year	1.20	1.20	1.09	0.11	0.11
Other	1.36	1.36	1.55	-0.19	-0.19
Puerto Rico					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.29	0.29	0.32	-0.03	-0.03
Other	0.79	0.79	0.69	0.10	0.10
Rhode Island					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡
Other	0.31	0.21	0.22	0.09*	-0.01
South Carolina					
Public 2-year	0.50	0.50	0.61	-0.11	-0.11
Public 4-year	0.51	0.51	0.49	0.02	0.02
Other	0.24	0.24	0.36	-0.12	-0.12
South Dakota					
Public 2-year	0.04	0.04	0.03	0.01	0.01
Public 4-year	0.18	0.18	0.20	-0.02*	-0.02
Other	0.08	0.08	0.11	-0.03	-0.03
Tennessee					
Public 2-year	0.56	0.56	0.66	-0.10*	-0.10
Public 4-year	‡	‡	‡	‡	‡
Other	0.46	0.46	0.48	-0.02	-0.02

See notes at end of table.

**Table K-51. Undergraduate student-level differences between means before and after poststratification for select variables for all students: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Texas					
Public 2-year	4.00	4.00	3.31	0.69*	0.69
Public 4-year	3.20	3.20	2.71	0.49*	0.49
Other	0.91	0.91	1.06	-0.15	-0.15
Utah					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.65	0.65	0.79	-0.14*	-0.14
Other	0.77	0.77	0.91	-0.14*	-0.14
Vermont					
Public 2-year	‡	‡	‡	‡	‡
Public 4-year	0.08	0.08	0.10	-0.02	-0.02*
Other	0.09	0.09	0.09	#	#
Virginia					
Public 2-year	0.92	0.92	1.01	-0.09*	-0.09
Public 4-year	1.00	1.00	0.99	0.01	0.01
Other	0.77	0.77	0.79	-0.02	-0.02
Washington					
Public 2-year	0.21	0.21	0.04	0.17*	0.17*
Public 4-year	1.44	1.44	1.80	-0.36*	-0.36
Other	0.23	0.23	0.26	-0.03	-0.03
West Virginia					
Public 2-year	0.06	0.06	0.07	-0.01	-0.01
Public 4-year	0.28	0.28	0.33	-0.05*	-0.05
Other	0.45	0.45	0.42	0.03	0.03
Wisconsin					
Public 2-year	0.47	0.47	0.49	-0.02	-0.02
Public 4-year	0.87	0.87	0.99	-0.12*	-0.12
Other	0.26	0.26	0.28	-0.02	-0.02
Wyoming					
Public 2-year	0.08	0.08	0.11	-0.03	-0.03
Public 4-year	0.06	0.06	0.05	0.01	0.01
Other	‡	‡	‡	‡	‡
Bureau of Economic Analysis region <sup>3</sup>					
New England	5.16	5.16	5.14	0.02	0.02
Mideast	13.84	13.84	14.47	-0.63	-0.63
Great Lakes	13.22	13.22	14.11	-0.89*	-0.89
Plains	6.85	6.85	6.99	-0.14	-0.14
Southeast	23.35	23.35	24.39	-1.04*	-1.04
Southwest	12.60	12.60	11.85	0.75*	0.75
Rocky Mountains	4.41	4.41	4.96	-0.55*	-0.55
Far West	19.47	19.47	17.07	2.40*	2.40*
Outlying Areas	1.09	1.09	1.01	0.08	0.08
Federal aid status					
Received	51.86	51.86	60.51	-8.65*	-8.65*
Did not receive	48.14	48.14	39.49	8.65*	8.65*

See notes at end of table.

**Table K-51. Undergraduate student-level differences between means before and after poststratification for select variables for all students: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Direct Loan status					
Received	31.87	31.86	38.66	-6.79*	-6.80*
Did not receive	68.13	68.14	61.34	6.79*	6.80*
Total Direct Loan amount received <sup>4</sup>					
None	68.13	68.14	61.34	6.79*	6.80*
\$1–\$4,500	8.34	8.33	9.64	-1.30*	-1.31*
\$4,501–\$6,000	7.45	7.44	9.03	-1.58*	-1.59*
\$6,001–\$7,500	8.64	8.64	10.14	-1.50*	-1.50*
\$7,501 or more	7.43	7.44	9.85	-2.42*	-2.41*
Age as of December 31, 2017					
15–23	62.98	61.78	61.74	1.24*	0.04
24–29	16.49	16.28	17.46	-0.97*	-1.18*
30 or older	20.17	19.89	20.44	-0.27	-0.55
Unknown	0.36	2.05	0.35	0.01	1.70*
Institution aid status					
Received	24.51	22.63	25.29	-0.78*	-2.66*
Did not receive	75.49	62.27	74.71	0.78*	-12.44*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	19.37	19.37	24.89	-5.52*	-5.52*
Did not receive	80.63	71.23	75.11	5.52*	-3.88*
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	3.98	3.98	3.80	0.18*	0.18
No	96.02	96.02	96.20	-0.18*	-0.18
Race/ethnicity					
White	48.70	45.42	47.12	1.58*	-1.70*
Black or African American	12.90	12.05	12.84	0.06	-0.79*
Hispanic	20.03	18.52	18.12	1.91*	0.40
Asian	7.55	6.62	8.94	-1.39*	-2.32*
American Indian or Alaska Native	0.80	0.71	1.33	-0.53*	-0.62*
Native Hawaiian or other Pacific Islander	0.47	0.39	0.58	-0.11*	-0.19*
More than one race	3.13	2.98	4.25	-1.12*	-1.27*
Unknown	6.41	13.31	6.82	-0.41*	6.49*
Gender					
Male	44.00	43.31	42.64	1.36*	0.67
Female	55.59	54.90	56.94	-1.35*	-2.04*
Unknown	0.41	1.79	0.42	-0.01	1.37*
Institution total undergraduate enrollment <sup>5</sup>					
1–2,938	12.98	13.06	15.22	-2.24*	-2.16*
2,939–8,721	18.58	18.68	18.97	-0.39	-0.29
8,722–18,604	23.42	23.62	23.69	-0.27	-0.07
18,605 or more	45.02	44.64	42.11	2.91*	2.53*

See notes at end of table.

**Table K-51. Undergraduate student-level differences between means before and after poststratification for select variables for all students: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	21.55	19.03	21.56	-0.01	-2.53*
Social/behavioral sciences	7.23	6.51	6.98	0.25*	-0.47*
Life sciences	8.95	8.16	8.64	0.31*	-0.48*
Physical sciences/mathematics	1.97	1.77	1.88	0.09*	-0.11
Computer/information science	4.64	4.10	4.66	-0.02	-0.56*
Engineering	5.80	5.32	5.50	0.30*	-0.18
Education	3.40	3.14	3.58	-0.18	-0.44*
Business/management	15.01	13.45	14.57	0.44*	-1.12*
Health	13.67	12.45	14.76	-1.09*	-2.31*
Vocational/technical	2.79	2.81	2.81	-0.02	#
Other technical/professional	11.23	10.17	11.61	-0.38*	-1.44*
Unknown	3.71	13.06	3.41	0.30*	9.65*
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	7.73	7.74	8.55	-0.82*	-0.81*
Associate's degree	33.87	32.42	33.71	0.16	-1.29
Postsecondary award, certificate, diploma, or degree program	52.01	50.91	51.76	0.25	-0.85
Bachelor's degree or equivalent	4.97	4.41	4.90	0.07	-0.49*
Unknown	1.42	4.52	1.09	0.33	3.43*
Pell Grant status					
Received	34.85	34.85	43.81	-8.96*	-8.96*
Did not receive	65.15	65.15	56.19	8.96*	8.96*
Total Pell amount received <sup>6</sup>					
None	65.15	65.15	56.19	8.96*	8.96*
\$1–\$2,959	10.33	10.33	14.04	-3.71*	-3.71*
\$2,960–\$5,919	13.47	13.47	17.24	-3.77*	-3.77*
\$5,920 or more	11.06	11.06	12.53	-1.47*	-1.47*
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–66	36.25	35.50	34.56	1.69*	0.94
67–81	26.30	26.37	26.21	0.09	0.16
82–94	23.78	24.36	24.45	-0.67	-0.09
95 or more	12.26	12.16	13.10	-0.84*	-0.94
None or unknown	1.41	1.61	1.68	-0.27*	-0.07
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
0–111	6.46	6.67	6.69	-0.23	-0.02
112–289	7.23	6.79	7.65	-0.42*	-0.86*
290–665	11.16	10.37	11.50	-0.34	-1.13*
666 or more	30.13	30.01	28.61	1.52*	1.40
Unknown	45.01	46.17	45.55	-0.54	0.62

See notes at end of table.

**Table K-51. Undergraduate student-level differences between means before and after poststratification for select variables for all students: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–38	6.50	6.53	7.34	-0.84*	-0.81
39–92	12.25	12.31	12.70	-0.45	-0.39
93–239	20.59	21.00	21.11	-0.52	-0.11
240 or more	58.87	58.14	56.79	2.08*	1.35
Unknown	1.79	2.01	2.05	-0.26*	-0.04
Average amount of grant and scholarship aid received <sup>6</sup>					
\$0–\$4,870	15.30	17.00	15.43	-0.13	1.57
\$4,871–\$5,914	26.43	25.84	26.31	0.12	-0.47
\$5,915–\$9,272	29.38	29.32	30.00	-0.62	-0.68
\$9,273 or more	27.32	26.08	26.30	1.02*	-0.22
Unknown	1.58	1.77	1.96	-0.38*	-0.19

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.

<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-52. Undergraduate student-level differences between means before and after poststratification for select variables for students in public less-than-2-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	56.05	48.76	48.61	7.44*	0.15
Southwest	10.69	18.37	8.10	2.59	10.27
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	39.05	31.75	39.01	0.04	-7.26
Did not receive	60.95	68.25	60.99	-0.04	7.26
Direct Loan status					
Received	5.42	5.24	14.75	-9.33	-9.51
Did not receive	94.58	94.76	85.25	9.33	9.51
Total Direct Loan amount received <sup>4</sup>					
None	94.58	94.76	85.25	9.33	9.51
\$1–\$2,750	‡	‡	‡	‡	‡
\$2,751–\$4,324	‡	‡	‡	‡	‡
\$4,325–\$6,467	‡	‡	‡	‡	‡
\$6,468 or more	‡	‡	‡	‡	‡
Age as of December 31, 2017					
15–23	44.60	42.80	40.24	4.36*	2.56
24–29	26.07	25.29	25.71	0.36	-0.42
30 or older	29.11	31.10	33.96	-4.85*	-2.86
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	‡	‡	‡	‡	‡
Did not receive	95.91	92.14	97.46	-1.55	-5.32
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	‡	‡	‡	‡	‡
No	96.22	94.57	95.78	0.44	-1.21

See notes at end of table.

**Table K-52. Undergraduate student-level differences between means before and after poststratification for select variables for students in public less-than-2-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	63.80	54.14	58.82	4.98*	-4.68
Black or African American	11.70	20.45	10.92	0.78	9.53
Hispanic	15.90	11.63	14.05	1.85	-2.42
Asian	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Gender					
Male	59.67	59.82	61.22	-1.55	-1.40
Female	40.33	39.49	38.78	1.55	0.71
Unknown	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>5</sup>					
1–621	12.67	15.18	13.67	-1.00	1.51
622–944	4.93	40.27	3.79	1.14	36.48
945–3,652	‡	‡	‡	‡	‡
3,653 or more	‡	‡	‡	‡	‡
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	25.60	23.89	27.52	-1.92	-3.63
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	93.33	67.67	92.79	0.54	-25.12
Associate's degree	‡	‡	‡	‡	‡
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	6.67	27.98	7.21	-0.54	20.77
Unknown	‡	‡	‡	‡	‡
Pell Grant status					
Received	36.71	29.52	30.34	6.37*	-0.82
Did not receive	63.29	70.48	69.66	-6.37*	0.82

See notes at end of table.



**Table K-52. Undergraduate student-level differences between means before and after poststratification for select variables for students in public less-than-2-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	63.29	70.48	69.66	-6.37*	0.82
\$1–\$2,960	11.46	9.44	8.54	2.92*	0.90
\$2,961–\$5,919	14.79	13.95	13.38	1.41	0.57
\$5,920 or more	10.45	6.13	8.42	2.03	-2.29
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–47	56.75	22.60	50.80	5.95	-28.20
48–67	26.85	30.10	31.80	-4.95	-1.70
68–82	6.51	36.62	5.15	1.36	31.47
83 or more	9.89	10.68	12.25	-2.36	-1.57
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
5–7	‡	‡	‡	‡	‡
Unknown	99.30	99.57	97.12	2.18	2.45
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–4	54.40	21.78	46.39	8.01*	-24.61
5–9	9.48	11.95	10.03	-0.55	1.92
10–19	15.82	46.83	17.65	-1.83	29.18
20 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$3,436	2.60	6.87	4.60	-2.00	2.27
\$3,437–\$4,382	‡	‡	‡	‡	‡
\$4,383–\$5,765	7.04	10.58	5.55	1.49	5.03
\$5,766 or more	54.40	48.12	46.39	8.01*	1.73
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-53. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 2-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	2.96	3.41	3.18	-0.22	0.23
Mideast	12.09	12.08	12.99	-0.90*	-0.91
Great Lakes	14.22	13.87	17.31	-3.09*	-3.44*
Plains	7.04	6.97	7.13	-0.09	-0.16
Southeast	17.99	17.99	19.71	-1.72*	-1.72
Southwest	16.98	16.97	16.45	0.53	0.52
Rocky Mountains	2.33	2.33	2.62	-0.29*	-0.29
Far West	26.36	26.35	20.59	5.77*	5.76*
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	43.27	42.37	49.28	-6.01*	-6.91*
Did not receive	56.73	57.63	50.72	6.01*	6.91*
Direct Loan status					
Received	16.28	15.73	16.09	0.19	-0.36
Did not receive	83.72	84.27	83.91	-0.19	0.36
Total Direct Loan amount received <sup>4</sup>					
None	83.72	84.27	83.91	-0.19	0.36
\$1–\$3,250	4.42	4.23	5.10	-0.68*	-0.87*
\$3,251–\$5,320	4.26	4.20	4.35	-0.09	-0.15
\$5,321–\$7,406	3.65	3.46	3.31	0.34*	0.15
\$7,407 or more	3.95	3.84	3.33	0.62*	0.51*
Age as of December 31, 2017					
15–23	55.12	52.99	54.73	0.39	-1.74
24–29	19.31	18.91	19.54	-0.23	-0.63
30 or older	24.80	24.33	24.88	-0.08	-0.55
Unknown	0.76	3.77	0.85	-0.09	2.92
Institution aid status					
Received	4.73	4.80	5.23	-0.50*	-0.43
Did not receive	95.27	74.13	94.77	0.50*	-20.64*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	17.13	16.79	23.14	-6.01*	-6.35*
Did not receive	82.87	68.20	76.86	6.01*	-8.66*
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	4.19	4.11	4.09	0.10	0.02
No	95.81	95.89	95.91	-0.10	-0.02

See notes at end of table.

**Table K-53. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	46.28	40.71	46.01	0.27	-5.30*
Black or African American	13.88	11.95	13.26	0.62*	-1.31*
Hispanic	24.26	20.68	21.50	2.76*	-0.82
Asian	6.92	5.67	8.50	-1.58*	-2.83*
American Indian or Alaska Native	0.95	0.81	1.44	-0.49*	-0.63*
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	2.55	2.29	3.61	-1.06*	-1.32*
Unknown	4.88	17.64	5.28	-0.40*	12.36*
Gender					
Male	44.05	42.61	43.07	0.98*	-0.46
Female	55.06	54.02	55.95	-0.89*	-1.93*
Unknown	0.89	3.37	0.99	-0.10	2.38
Institution total undergraduate enrollment <sup>5</sup>					
1–3,843	7.52	7.52	8.47	-0.95*	-0.95
3,844–9,601	17.63	18.70	18.02	-0.39	0.68
9,602–17,503	26.03	25.17	26.62	-0.59	-1.45
17,504 or more	48.83	48.61	46.89	1.94*	1.72
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	34.29	28.99	34.86	-0.57	-5.87*
Social/behavioral sciences	2.78	2.30	2.48	0.30*	-0.18
Life sciences	5.53	4.57	5.35	0.18	-0.78*
Physical sciences/mathematics	1.13	0.99	1.12	0.01	-0.13
Computer/information science	4.30	3.52	4.28	0.02	-0.76*
Engineering	4.02	3.35	3.94	0.08	-0.59*
Education	1.99	1.72	1.99	#	-0.27*
Business/management	12.44	9.95	12.01	0.43	-2.06*
Health	15.10	12.87	16.19	-1.09*	-3.32*
Vocational/technical	4.90	4.27	4.90	#	-0.63*
Other technical/professional	10.68	8.73	10.36	0.32	-1.63*
Unknown	2.76	18.69	2.37	0.39	16.32*
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	13.02	11.47	12.76	0.26	-1.29*
Associate's degree	75.60	71.78	76.87	-1.27*	-5.09*
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	8.78	7.34	8.48	0.30	-1.14*
Unknown	2.60	7.74	1.89	0.71	5.85*

See notes at end of table.

**Table K-53. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Pell Grant status					
Received	35.00	34.37	41.97	-6.97*	-7.60*
Did not receive	65.00	65.63	58.03	6.97*	7.60*
Total Pell amount received <sup>6</sup>					
None	65.00	65.63	58.03	6.97*	7.60*
\$1–\$2,960	12.57	12.48	16.67	-4.10*	-4.19*
\$2,961–\$5,919	14.43	14.06	17.19	-2.76*	-3.13*
\$5,920 or more	8.00	7.82	8.11	-0.11	-0.29
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–63	41.19	38.45	39.37	1.82	-0.92
64–75	30.70	29.60	28.96	1.74*	0.64
76–85	15.53	18.15	16.27	-0.74	1.88
86 or more	12.56	13.80	15.38	-2.82*	-1.58
None or unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
0–38	4.16	4.23	4.48	-0.32	-0.25
39–72	3.98	3.40	3.54	0.44	-0.14
73–136	2.62	2.71	3.04	-0.42*	-0.33
137 or more	5.19	4.66	5.73	-0.54*	-1.07*
Unknown	84.05	85.00	83.22	0.83	1.78
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–61	6.52	6.26	7.11	-0.59	-0.85
62–126	9.85	12.23	9.85	#	2.38*
127–256	24.88	24.30	24.92	-0.04	-0.62
257 or more	58.63	57.07	57.95	0.68	-0.88
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-53. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 2-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$4,599	16.81	18.92	16.01	0.80	2.91
\$4,600–\$5,137	24.68	26.93	25.38	-0.70	1.55
\$5,138–\$5,724	32.14	27.96	31.57	0.57	-3.61
\$5,725 or more	26.30	26.13	26.96	-0.66	-0.83
Unknown	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .

<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.

<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

<sup>5</sup> Categories were defined by quartiles at the institution level.

<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-54. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Midwest	5.84	6.35	5.46	0.38	0.89
Great Lakes	9.01	9.24	9.37	-0.36	-0.13
Plains	‡	‡	‡	‡	‡
Southeast	41.85	39.72	43.84	-1.99	-4.12
Southwest	3.92	5.03	2.68	1.24	2.35
Rocky Mountains	3.44	3.38	3.87	-0.43*	-0.49
Far West	34.83	35.37	33.37	1.46	2.00
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	45.63	44.83	53.63	-8.00*	-8.80*
Did not receive	54.37	55.17	46.37	8.00*	8.80*
Direct Loan status					
Received	17.26	16.82	21.41	-4.15*	-4.59*
Did not receive	82.74	83.18	78.59	4.15*	4.59*
Total Direct Loan amount received <sup>4</sup>					
None	82.74	83.18	78.59	4.15*	4.59*
\$1–\$3,500	5.40	5.28	6.28	-0.88*	-1.00*
\$3,501–\$5,500	4.91	5.14	5.95	-1.04*	-0.81
\$5,501–\$7,500	2.73	2.72	3.46	-0.73*	-0.74
\$7,501 or more	4.23	3.68	5.72	-1.49*	-2.04*
Age as of December 31, 2017					
15–23	55.40	55.86	55.38	0.02	0.48
24–29	19.79	19.99	20.33	-0.54	-0.34
30 or older	24.68	23.47	24.20	0.48	-0.73
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	7.60	7.18	8.51	-0.91*	-1.33*
Did not receive	92.40	72.98	91.49	0.91*	-18.51*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	22.62	22.71	28.53	-5.91*	-5.82*
Did not receive	77.38	69.56	71.47	5.91*	-1.91
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	4.12	4.15	3.90	0.22	0.25
No	95.88	95.85	96.10	-0.22	-0.25

See notes at end of table.

**Table K-54. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	40.34	37.51	43.45	-3.11*	-5.94*
Black or African American	13.65	13.19	12.89	0.76	0.30
Hispanic	31.20	29.15	26.61	4.59*	2.54
Asian	5.95	5.50	7.00	-1.05*	-1.50*
American Indian or Alaska Native	0.59	0.67	0.73	-0.14	-0.06
Native Hawaiian or other Pacific Islander	0.42	0.38	0.47	-0.05	-0.09
More than one race	2.48	2.51	3.30	-0.82*	-0.79*
Unknown	5.37	11.08	5.56	-0.19	5.52*
Gender					
Male	43.58	43.26	41.49	2.09*	1.77
Female	56.04	56.01	58.14	-2.10*	-2.13*
Unknown	0.38	0.73	0.37	0.01	0.36
Institution total undergraduate enrollment <sup>5</sup>					
1–3,772	4.79	6.20	5.20	-0.41	1.00
3,773–9,167	18.33	14.03	20.36	-2.03*	-6.33*
9,168–18,681	19.43	21.05	21.36	-1.93	-0.31
18,682 or more	57.45	58.72	53.07	4.38*	5.65
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	38.71	34.84	40.42	-1.71*	-5.58*
Social/behavioral sciences	2.14	1.96	1.83	0.31	0.13
Life sciences	4.07	3.13	3.84	0.23	-0.71
Physical sciences/mathematics	1.25	1.08	1.30	-0.05	-0.22
Computer/information science	4.08	4.10	4.08	#	0.02
Engineering	2.94	2.59	2.76	0.18	-0.17
Education	2.20	2.27	2.17	0.03	0.10
Business/management	10.39	9.59	10.14	0.25	-0.55
Health	13.90	12.56	14.40	-0.50	-1.84*
Vocational/technical	3.32	4.09	3.08	0.24	1.01
Other technical/professional	8.46	7.82	7.61	0.85*	0.21
Unknown	8.45	15.91	8.25	0.20	7.66*
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	7.14	7.08	6.56	0.58	0.52
Associate's degree	72.81	66.75	73.72	-0.91	-6.97*
Postsecondary award, certificate, diploma, or degree program	12.56	17.04	12.22	0.34	4.82
Bachelor's degree or equivalent	5.23	5.69	5.34	-0.11	0.35
Unknown	2.26	3.44	2.17	0.09	1.27
Pell Grant status					
Received	36.97	36.48	44.93	-7.96*	-8.45*
Did not receive	63.03	63.52	55.07	7.96*	8.45*

See notes at end of table.

**Table K-54. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	63.03	63.52	55.07	7.96*	8.45*
\$1–\$2,960	12.30	12.79	16.02	-3.72*	-3.23*
\$2,961–\$5,919	14.95	14.58	18.39	-3.44*	-3.81*
\$5,920 or more	9.72	9.11	10.52	-0.80*	-1.41
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–59	25.08	30.04	28.12	-3.04	1.92
60–69	27.48	24.60	28.77	-1.29	-4.17
70–83	27.86	27.69	27.38	0.48	0.31
84 or more	19.57	17.66	15.72	3.85	1.94
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
0–19	5.97	6.04	7.44	-1.47*	-1.40
20–65	4.16	3.28	4.60	-0.44	-1.32
66–248	3.00	5.39	3.39	-0.39*	2.00
249 or more	7.05	5.47	7.32	-0.27	-1.85
Unknown	79.82	79.83	77.26	2.56*	2.57
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–74	6.26	7.76	6.77	-0.51	0.99
75–140	17.18	14.54	18.61	-1.43	-4.07
141–337	20.31	17.96	22.81	-2.50*	-4.85
338 or more	56.25	59.73	51.80	4.45*	7.93
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$4,763	18.98	19.48	17.06	1.92	2.42
\$4,764–\$5,525	23.21	24.30	22.87	0.34	1.43
\$5,526–\$6,300	37.43	36.67	37.39	0.04	-0.72
\$6,301 or more	20.38	19.56	22.69	-2.31*	-3.13

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table K-55. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	6.36	7.67	5.76	0.60	1.91
Mideast	25.83	23.89	25.76	0.07	-1.87
Great Lakes	7.23	7.18	7.21	0.02	-0.03
Plains	8.27	7.74	8.45	-0.18	-0.71
Southeast	19.36	19.92	20.27	-0.91	-0.35
Southwest	7.55	7.25	6.30	1.25	0.95
Rocky Mountains	14.00	12.11	15.24	-1.24	-3.13*
Far West	10.89	13.02	10.51	0.38	2.51
Outlying Areas	0.51	1.22	0.51	#	0.71
Federal aid status					
Received	61.33	60.19	67.97	-6.64*	-7.78*
Did not receive	38.67	39.81	32.03	6.64*	7.78*
Direct Loan status					
Received	42.02	41.36	47.73	-5.71*	-6.37*
Did not receive	57.98	58.64	52.27	5.71*	6.37*
Total Direct Loan amount received <sup>4</sup>					
None	57.98	58.64	52.27	5.71*	6.37*
\$1–\$4,888	11.22	10.80	11.99	-0.77	-1.19
\$4,889–\$6,250	11.13	11.03	12.70	-1.57*	-1.67*
\$6,251–\$7,500	11.53	11.39	12.74	-1.21*	-1.35*
\$7,501 or more	8.14	8.15	10.31	-2.17*	-2.16*
Age as of December 31, 2017					
15–23	68.67	69.31	67.14	1.53*	2.17
24–29	15.76	15.79	17.05	-1.29*	-1.26
30 or older	15.48	14.67	15.73	-0.25	-1.06
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	24.77	23.82	23.39	1.38*	0.43
Did not receive	75.23	65.81	76.61	-1.38*	-10.80*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	29.64	28.84	33.27	-3.63*	-4.43*
Did not receive	70.36	64.23	66.73	3.63*	-2.50
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	3.25	3.22	3.09	0.16	0.13
No	96.75	96.78	96.91	-0.16	-0.13

See notes at end of table.

**Table K-55. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	55.80	52.24	54.79	1.01	-2.55
Black or African American	11.97	12.33	11.80	0.17	0.53
Hispanic	17.32	16.31	17.01	0.31	-0.70
Asian	5.90	5.92	6.48	-0.58	-0.56
American Indian or Alaska Native	1.51	1.33	1.74	-0.23	-0.41*
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	3.44	3.40	4.29	-0.85*	-0.89*
Unknown	3.58	8.18	3.48	0.10	4.70*
Gender					
Male	42.39	42.58	41.72	0.67	0.86
Female	57.45	57.18	58.14	-0.69	-0.96
Unknown	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>5</sup>					
1–2,310	7.17	6.25	8.28	-1.11	-2.03
2,311–4,294	14.46	15.06	13.79	0.67	1.27
4,295–6,594	23.10	24.67	23.69	-0.59	0.98
6,595 or more	55.27	54.02	54.24	1.03	-0.22
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	15.42	15.05	15.70	-0.28	-0.65
Social/behavioral sciences	11.66	10.97	11.52	0.14	-0.55
Life sciences	11.34	10.74	11.24	0.10	-0.50
Physical sciences/mathematics	2.29	2.01	2.27	0.02	-0.26
Computer/information science	4.58	3.89	4.94	-0.36	-1.05*
Engineering	4.17	3.79	3.78	0.39	0.01
Education	7.26	6.19	7.72	-0.46	-1.53*
Business/management	17.99	16.66	17.79	0.20	-1.13
Health	8.22	8.29	8.46	-0.24	-0.17
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	12.61	11.40	12.33	0.28	-0.93
Unknown	3.45	10.04	3.11	0.34	6.93*
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	0.27	0.34	0.24	0.03	0.10
Associate's degree	4.06	4.19	4.47	-0.41	-0.28
Postsecondary award, certificate, diploma, or degree program	88.72	87.98	89.03	-0.31	-1.05
Bachelor's degree or equivalent	3.93	3.49	4.21	-0.28	-0.72
Unknown	3.02	4.01	2.05	0.97	1.96*
Pell Grant status					
Received	40.43	39.71	47.38	-6.95*	-7.67*
Did not receive	59.57	60.29	52.62	6.95*	7.67*

See notes at end of table.

**Table K-55. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	59.57	60.29	52.62	6.95*	7.67*
\$1–\$2,960	10.02	9.39	12.64	-2.62*	-3.25*
\$2,961–\$5,919	14.51	14.33	17.64	-3.13*	-3.31*
\$5,920 or more	15.90	15.99	17.11	-1.21	-1.12
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–70	32.00	27.31	31.27	0.73	-3.96
71–82	27.36	29.73	26.70	0.66	3.03
83–90	22.17	25.10	22.37	-0.20	2.73
91 or more	16.67	16.51	17.74	-1.07	-1.23
None or unknown	1.80	1.35	1.93	-0.13	-0.58
Number of full-time, first-time undergraduate students living on-campus <sup>5</sup>					
0–133	15.31	16.72	14.87	0.44	1.85
134–242	18.30	16.18	18.51	-0.21	-2.33
243–475	21.15	22.07	21.95	-0.80	0.12
476 or more	28.19	28.23	28.00	0.19	0.23
Unknown	17.05	16.79	16.67	0.38	0.12
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–55	8.78	7.72	8.71	0.07	-0.99
56–120	15.45	15.96	16.32	-0.87	-0.36
121–244	22.46	23.08	22.37	0.09	0.71
245 or more	51.50	51.89	50.67	0.83	1.22
Unknown	1.80	1.35	1.93	-0.13	-0.58

See notes at end of table.

**Table K-55. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$5,971	20.86	23.06	22.89	-2.03*	0.17
\$5,972–\$7,276	28.76	28.02	27.22	1.54	0.80
\$7,277–\$8,481	22.50	20.20	22.48	0.02	-2.28
\$8,482 or more	26.08	27.37	25.48	0.60	1.89
Unknown	1.80	1.35	1.93	-0.13	-0.58

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-56. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	3.67	3.34	4.02	-0.35	-0.68*
Mideast	11.92	12.08	12.39	-0.47	-0.31
Great Lakes	15.08	15.00	15.00	0.08	#
Plains	7.23	7.24	7.59	-0.36	-0.35
Southeast	27.43	27.90	27.76	-0.33	0.14
Southwest	13.58	13.53	12.42	1.16	1.11
Rocky Mountains	3.91	4.28	4.25	-0.34	0.03
Far West	16.50	15.92	15.83	0.67	0.09
Outlying Areas	0.67	0.70	0.74	-0.07	-0.04
Federal aid status					
Received	53.76	55.08	63.12	-9.36*	-8.04*
Did not receive	46.24	44.92	36.88	9.36*	8.04*
Direct Loan status					
Received	39.88	40.76	48.98	-9.10*	-8.22*
Did not receive	60.12	59.24	51.02	9.10*	8.22*
Total Direct Loan amount received <sup>4</sup>					
None	60.12	59.24	51.02	9.10*	8.22*
\$1–\$5,414	10.32	10.45	11.91	-1.59*	-1.46*
\$5,415–\$6,500	14.16	14.59	17.10	-2.94*	-2.51*
\$6,501–\$7,500	8.63	8.69	10.40	-1.77*	-1.71*
\$7,501 or more	6.76	7.04	9.56	-2.80*	-2.52*
Age as of December 31, 2017					
15–23	78.17	77.77	76.81	1.36*	0.96
24–29	12.71	12.46	13.77	-1.06*	-1.31*
30 or older	8.93	9.01	9.25	-0.32	-0.24
Unknown	0.19	0.76	0.17	0.02	0.59
Institution aid status					
Received	31.73	32.09	33.96	-2.23*	-1.87*
Did not receive	68.27	60.05	66.04	2.23*	-5.99*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	25.31	26.00	32.32	-7.01*	-6.32*
Did not receive	74.69	69.59	67.68	7.01*	1.91
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	2.59	2.59	2.64	-0.05	-0.05
No	97.41	97.41	97.36	0.05	0.05

See notes at end of table.

**Table K-56. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	51.17	50.61	51.03	0.14	-0.42
Black or African American	10.29	10.16	10.44	-0.15	-0.28
Hispanic	16.32	16.31	15.21	1.11*	1.10
Asian	9.83	8.84	10.26	-0.43	-1.42*
American Indian or Alaska Native	0.68	0.60	0.92	-0.24*	-0.32*
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	4.59	4.41	5.38	-0.79*	-0.97*
Unknown	6.24	8.39	6.03	0.21	2.36*
Gender					
Male	46.77	46.50	45.98	0.79*	0.52
Female	53.07	52.91	53.89	-0.82*	-0.98*
Unknown	0.16	0.59	0.13	0.03	0.46
Institution total undergraduate enrollment <sup>5</sup>					
1–10,954	14.85	15.71	16.39	-1.54*	-0.68
10,955–17,663	17.57	17.05	19.14	-1.57*	-2.09
17,664–25,427	22.10	22.56	21.49	0.61	1.07
25,428 or more	45.48	44.69	42.98	2.50*	1.71
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	11.82	11.62	12.36	-0.54*	-0.74
Social/behavioral sciences	10.99	10.60	11.07	-0.08	-0.47
Life sciences	14.67	14.01	14.63	0.04	-0.62
Physical sciences/mathematics	3.26	3.06	3.11	0.15*	-0.05
Computer/information science	4.78	4.50	4.87	-0.09	-0.37*
Engineering	10.33	9.82	10.22	0.11	-0.40
Education	3.96	3.71	4.11	-0.15	-0.40*
Business/management	15.64	14.99	14.95	0.69*	0.04
Health	9.06	8.49	9.37	-0.31	-0.88*
Vocational/technical	0.72	0.66	0.79	-0.07*	-0.13
Other technical/professional	11.02	10.88	11.00	0.02	-0.12
Unknown	3.72	7.63	3.50	0.22	4.13*
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	0.51	0.66	0.47	0.04	0.19
Associate's degree	1.74	2.09	1.87	-0.13	0.22
Postsecondary award, certificate, diploma, or degree program	94.36	92.87	94.20	0.16	-1.33*
Bachelor's degree or equivalent	2.80	2.29	2.86	-0.06	-0.57*
Unknown	0.60	2.09	0.59	0.01	1.50*
Pell Grant status					
Received	31.50	32.37	39.98	-8.48*	-7.61*
Did not receive	68.50	67.63	60.02	8.48*	7.61*

See notes at end of table.

**Table K-56. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	68.50	67.63	60.02	8.48*	7.61*
\$1–\$2,970	9.23	9.25	12.82	-3.59*	-3.57*
\$2,971–\$5,919	9.64	10.12	12.17	-2.53*	-2.05*
\$5,920 or more	12.63	13.01	14.98	-2.35*	-1.97*
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–68	33.95	33.80	31.79	2.16*	2.01
69–80	26.85	25.89	27.98	-1.13	-2.09
81–89	23.36	24.49	24.62	-1.26*	-0.13
90 or more	15.55	15.15	15.33	0.22	-0.18
None or unknown	0.29	0.67	0.28	0.01	0.39
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
0–483	11.96	11.59	12.49	-0.53	-0.90
484–908	17.76	17.90	19.65	-1.89*	-1.75
909–1,583	24.33	24.46	24.51	-0.18	-0.05
1,584 or more	43.28	43.19	40.52	2.76*	2.67
Unknown	2.68	2.86	2.82	-0.14	0.04
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–204	11.67	12.12	12.52	-0.85*	-0.40
205–339	21.81	21.15	22.46	-0.65	-1.31
340–557	25.05	25.61	25.01	0.04	0.60
558 or more	41.18	40.45	39.73	1.45	0.72
Unknown	0.29	0.67	0.28	0.01	0.39

See notes at end of table.

**Table K-56. Undergraduate student-level differences between means before and after poststratification for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$6,778	20.59	20.82	21.81	-1.22*	-0.99
\$6,779–\$8,176	21.26	21.87	22.30	-1.04	-0.43
\$8,177–\$9,547	24.04	24.25	23.28	0.76	0.97
\$9,548 or more	33.82	32.40	32.33	1.49	0.07
Unknown	0.29	0.67	0.28	0.01	0.39

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table K-57. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit less-than-4-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	1.03	0.99	2.30	-1.27	-1.31
Mideast	25.98	19.57	30.32	-4.34	-10.75
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	56.68	52.75	78.45	-21.77*	-25.70*
Did not receive	43.32	47.25	21.55	21.77*	25.70*
Direct Loan status					
Received	31.53	25.88	62.07	-30.54*	-36.19*
Did not receive	68.47	74.12	37.93	30.54*	36.19*
Total Direct Loan amount received <sup>4</sup>					
None	68.47	74.12	37.93	30.54*	36.19*
\$1–\$3,902	‡	‡	‡	‡	‡
\$3,903–\$5,904	9.61	7.67	16.66	-7.05*	-8.99*
\$5,905–\$9,500	9.11	7.17	21.05	-11.94*	-13.88*
\$9,501 or more	‡	‡	‡	‡	‡
Age as of December 31, 2017					
15–23	50.08	54.32	52.81	-2.73	1.51
24–29	24.92	22.02	23.54	1.38	-1.52
30 or older	24.96	23.62	23.63	1.33	-0.01
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	‡	‡	‡	‡	‡
Did not receive	57.39	47.37	70.59	-13.20	-23.22
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	‡	‡	‡	‡	‡
No	95.58	96.46	92.51	3.07	3.95

See notes at end of table.

**Table K-57. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race					
White	76.30	60.67	46.94	29.36*	13.73
Black or African American	‡	‡	‡	‡	‡
Hispanic	‡	‡	‡	‡	‡
Asian	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	4.52	21.55	12.57	-8.05*	8.98
Gender					
Male	64.30	54.29	56.44	7.86	-2.15
Female	35.70	45.71	43.56	-7.86	2.15
Unknown	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>5</sup>					
1–147	4.98	22.83	4.10	0.88	18.73
148–396	‡	‡	‡	‡	‡
397–1,099	34.66	31.94	50.42	-15.76	-18.48
1,100 or more	‡	‡	‡	‡	‡
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	8.64	6.88	15.27	-6.63	-8.39
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	64.29	54.18	43.19	21.10	10.99
Associate's degree	35.38	33.14	56.57	-21.19	-23.43*
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Pell Grant status					
Received	46.79	43.44	69.21	-22.42*	-25.77*
Did not receive	53.21	56.56	30.79	22.42*	25.77*

See notes at end of table.

**Table K-57. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	53.21	56.56	30.79	22.42*	25.77*
\$1–\$2,960	‡	‡	‡	‡	‡
\$2,961–\$5,919	17.77	17.02	26.64	-8.87*	-9.62*
\$5,920 or more	16.26	13.60	28.92	-12.66*	-15.32*
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–65	69.45	71.27	44.86	24.59*	26.41
66–84	‡	‡	‡	‡	‡
85–93	4.09	2.47	3.66	0.43	-1.19
94 or more	11.26	14.01	28.72	-17.46	-14.71
None or unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
0	‡	‡	‡	‡	‡
1–36	‡	‡	‡	‡	‡
37–71	‡	‡	‡	‡	‡
72 or more	‡	‡	‡	‡	‡
Unknown	92.76	88.19	83.95	8.81	4.24
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–9	1.48	20.54	1.87	-0.39	18.67
10–24	45.22	33.33	22.86	22.36	10.47
25–82	29.05	28.33	36.04	-6.99	-7.71
83 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-57. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit less-than-4-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$4,816	13.13	29.37	20.23	-7.10	9.14
\$4,817–\$5,920	‡	‡	‡	‡	‡
\$5,921–\$9,373	3.12	8.78	10.10	-6.98	-1.32
\$9,374 or more	49.44	36.62	28.88	20.56	7.74
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-58. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	11.43	9.93	10.83	0.60	-0.90
Mideast	18.95	20.52	17.61	1.34	2.91
Great Lakes	12.88	14.51	12.60	0.28	1.91
Plains	13.00	12.24	13.64	-0.64	-1.40
Southeast	15.13	17.09	16.07	-0.94	1.02
Southwest	5.10	4.34	5.97	-0.87	-1.63
Rocky Mountains	13.89	11.20	14.62	-0.73	-3.42*
Far West	4.73	6.22	5.36	-0.63	0.86
Outlying Areas	4.89	3.94	3.30	1.59*	0.64
Federal aid status					
Received	65.49	64.65	70.31	-4.82*	-5.66*
Did not receive	34.51	35.35	29.69	4.82*	5.66*
Direct Loan status					
Received	51.94	52.11	57.84	-5.90*	-5.73*
Did not receive	48.06	47.89	42.16	5.90*	5.73*
Total Direct Loan amount received <sup>4</sup>					
None	48.06	47.89	42.16	5.90*	5.73*
\$1–\$5,500	21.19	21.31	23.08	-1.89*	-1.77*
\$5,501–\$6,500	7.21	7.70	7.96	-0.75*	-0.26
\$6,501–\$7,500	10.01	10.70	11.83	-1.82*	-1.13
\$7,501 or more	13.54	12.40	14.97	-1.43*	-2.57*
Age as of December 31, 2017					
15–23	64.55	65.05	64.83	-0.28	0.22
24–29	13.57	12.84	13.92	-0.35	-1.08
30 or older	21.84	21.28	21.19	0.65	0.09
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	58.55	47.83	56.84	1.71	-9.01*
Did not receive	41.45	36.15	43.16	-1.71	-7.01*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	16.61	17.09	22.32	-5.71*	-5.23*
Did not receive	83.39	73.89	77.68	5.71*	-3.79
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	3.74	4.17	3.12	0.62	1.05
No	96.26	95.83	96.88	-0.62	-1.05

See notes at end of table.

**Table K-58. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	56.88	54.08	53.75	3.13*	0.33
Black or African American	14.19	13.68	12.67	1.52*	1.01
Hispanic	14.83	14.09	12.15	2.68*	1.94*
Asian	4.92	4.49	8.36	-3.44*	-3.87*
American Indian or Alaska Native	0.64	0.65	1.47	-0.83*	-0.82*
Native Hawaiian or other Pacific Islander	0.18	0.28	0.35	-0.17*	-0.07
More than one race	2.55	2.45	5.04	-2.49*	-2.59*
Unknown	5.82	10.28	6.20	-0.38	4.08
Gender					
Male	41.53	43.08	40.98	0.55	2.10
Female	58.47	56.50	59.02	-0.55	-2.52
Unknown	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>5</sup>					
1–1,008	15.76	12.25	15.42	0.34	-3.17
1,009–1,680	22.72	24.47	24.78	-2.06*	-0.31
1,681–3,130	30.49	29.95	27.99	2.50	1.96
3,131 or more	31.03	33.32	31.81	-0.78	1.51
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	16.21	14.92	16.38	-0.17	-1.46
Social/behavioral sciences	9.49	8.17	9.23	0.26	-1.06*
Life sciences	9.14	8.51	9.40	-0.26	-0.89*
Physical sciences/mathematics	2.43	2.09	2.32	0.11	-0.23
Computer/information science	5.62	4.90	5.14	0.48	-0.24
Engineering	1.94	2.02	1.83	0.11	0.19
Education	5.66	5.48	6.01	-0.35	-0.53
Business/management	18.62	17.12	19.65	-1.03	-2.53*
Health	16.51	14.98	15.90	0.61	-0.92
Vocational/technical	1.04	1.21	0.99	0.05	0.22
Other technical/professional	7.40	6.78	7.21	0.19	-0.43
Unknown	5.93	13.80	5.92	0.01	7.88*
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	0.97	1.02	0.91	0.06	0.11
Associate's degree	10.14	10.93	10.03	0.11	0.90
Postsecondary award, certificate, diploma, or degree program	87.35	84.25	87.26	0.09	-3.01*
Bachelor's degree or equivalent	1.48	1.62	1.74	-0.26	-0.12
Unknown	‡	‡	‡	‡	‡
Pell Grant status					
Received	38.66	36.45	43.91	-5.25*	-7.46*
Did not receive	61.34	63.55	56.09	5.25*	7.46*

See notes at end of table.

**Table K-58. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	61.34	63.55	56.09	5.25*	7.46*
\$1–\$2,960	10.58	9.54	11.86	-1.28	-2.32*
\$2,961–\$5,919	14.06	13.62	16.58	-2.52*	-2.96*
\$5,920 or more	14.02	13.29	15.47	-1.45*	-2.18*
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–95	35.60	31.88	31.48	4.12*	0.40
96–99	27.15	26.75	27.44	-0.29	-0.69
100	26.93	27.80	29.28	-2.35*	-1.48
None or unknown	10.32	13.57	11.80	-1.48	1.77
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
0–128	10.15	13.01	11.76	-1.61*	1.25
129–238	21.46	19.46	22.57	-1.11	-3.11
239–373	20.16	18.57	19.87	0.29	-1.30
374 or more	25.08	25.57	23.47	1.61	2.10
Unknown	23.15	23.40	22.33	0.82	1.07
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–27	16.23	14.97	15.40	0.83	-0.43
28–46	21.50	19.56	21.59	-0.09	-2.03
47–75	23.66	22.80	23.36	0.30	-0.56
76 or more	28.22	29.03	27.76	0.46	1.27
Unknown	10.39	13.64	11.90	-1.51	1.74

See notes at end of table.

**Table K-58. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$11,086	20.29	19.59	17.63	2.66*	1.96
\$11,087–\$18,758	19.04	16.96	19.77	-0.73	-2.81
\$18,759–\$24,538	21.01	24.34	22.71	-1.70	1.63
\$24,539 or more	29.27	25.47	28.00	1.27	-2.53
Unknown	10.39	13.64	11.90	-1.51	1.74

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .

<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.

<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

<sup>5</sup> Categories were defined by quartiles at the institution level.

<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table K-59. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	18.47	19.18	17.69	0.78	1.49
Mideast	23.36	22.98	24.11	-0.75	-1.13
Great Lakes	13.33	15.12	13.17	0.16	1.95
Plains	6.19	5.94	6.33	-0.14	-0.39
Southeast	18.24	19.14	18.41	-0.17	0.73
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	11.34	9.93	11.44	-0.10	-1.51
Outlying Areas	2.27	1.88	1.39	0.88	0.49
Federal aid status					
Received	55.55	55.72	63.78	-8.23*	-8.06*
Did not receive	44.45	44.28	36.22	8.23*	8.06*
Direct Loan status					
Received	43.34	44.63	53.83	-10.49*	-9.20*
Did not receive	56.66	55.37	46.17	10.49*	9.20*
Total Direct Loan amount received <sup>4</sup>					
None	56.66	55.37	46.17	10.49*	9.20*
\$1–\$5,500	17.57	18.03	21.38	-3.81*	-3.35*
\$5,501–\$6,500	6.48	6.75	8.15	-1.67*	-1.40*
\$6,501–\$7,500	8.71	9.41	10.50	-1.79*	-1.09*
\$7,501 or more	10.58	10.45	13.80	-3.22*	-3.35*
Age as of December 31, 2017					
15–23	71.10	70.56	70.69	0.41	-0.13
24–29	11.56	10.90	12.25	-0.69	-1.35*
30 or older	17.29	16.27	17.00	0.29	-0.73
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	56.54	50.75	58.17	-1.63*	-7.42*
Did not receive	43.46	38.76	41.83	1.63*	-3.07*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	13.52	14.62	20.97	-7.45*	-6.35*
Did not receive	86.48	78.11	79.03	7.45*	-0.92
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	4.36	3.66	3.64	0.72*	0.02
No	95.64	96.34	96.36	-0.72*	-0.02

See notes at end of table.

**Table K-59. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	53.12	50.94	49.92	3.20*	1.02
Black or African American	10.18	10.01	9.57	0.61	0.44
Hispanic	14.29	13.18	13.64	0.65	-0.46
Asian	9.61	8.55	12.26	-2.65*	-3.71*
American Indian or Alaska Native	0.52	0.46	0.90	-0.38*	-0.44*
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	2.73	2.86	3.95	-1.22*	-1.09*
Unknown	9.24	13.76	9.17	0.07	4.59*
Gender					
Male	44.16	42.42	42.99	1.17*	-0.57
Female	55.73	55.62	56.86	-1.13*	-1.24
Unknown	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>5</sup>					
1–2,454	15.10	14.18	17.08	-1.98*	-2.90*
2,455–4,749	19.28	19.87	20.19	-0.91	-0.32
4,750–8,642	27.97	28.56	26.79	1.18	1.77
8,643 or more	37.65	37.39	35.94	1.71	1.45
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	16.14	13.67	15.50	0.64	-1.83*
Social/behavioral sciences	13.62	11.91	13.09	0.53	-1.18*
Life sciences	9.64	9.51	9.86	-0.22	-0.35
Physical sciences/mathematics	2.28	2.12	2.38	-0.10	-0.26
Computer/information science	4.47	4.38	4.45	0.02	-0.07
Engineering	6.19	5.86	5.94	0.25	-0.08
Education	3.55	3.28	3.55	#	-0.27
Business/management	18.61	17.82	18.99	-0.38	-1.17
Health	11.30	10.95	11.95	-0.65	-1.00
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	9.86	8.82	9.91	-0.05	-1.09*
Unknown	3.94	11.25	3.97	-0.03	7.28*
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	0.65	0.64	0.62	0.03	0.02
Associate's degree	3.66	3.63	3.93	-0.27	-0.30
Postsecondary award, certificate, diploma, or degree program	92.38	89.04	92.02	0.36	-2.98*
Bachelor's degree or equivalent	3.22	3.00	3.33	-0.11	-0.33
Unknown	0.09	3.68	0.10	-0.01	3.58*
Pell Grant status					
Received	28.68	27.62	35.76	-7.08*	-8.14*
Did not receive	71.32	72.38	64.24	7.08*	8.14*

See notes at end of table.

**Table K-59. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	71.32	72.38	64.24	7.08*	8.14*
\$1–\$2,970	9.74	9.59	13.02	-3.28*	-3.43*
\$2,971–\$5,919	9.08	8.53	11.47	-2.39*	-2.94*
\$5,920 or more	9.87	9.50	11.27	-1.40*	-1.77*
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–87	44.35	44.67	42.47	1.88*	2.20
88–98	32.36	29.76	30.85	1.51	-1.09
99 or more	22.00	24.13	25.28	-3.28*	-1.15
None or unknown	1.29	1.44	1.40	-0.11	0.04
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
0–224	10.17	10.55	10.66	-0.49	-0.11
225–453	11.66	11.98	13.73	-2.07*	-1.75
454–790	26.75	26.33	26.92	-0.17	-0.59
791 or more	44.94	44.71	42.33	2.61*	2.38
Unknown	6.48	6.44	6.37	0.11	0.07
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–48	12.72	12.04	12.19	0.53	-0.15
49–74	17.62	17.34	17.21	0.41	0.13
75–132	25.31	24.58	25.09	0.22	-0.51
133 or more	42.96	44.50	44.06	-1.10	0.44
Unknown	1.39	1.54	1.45	-0.06	0.09

See notes at end of table.

**Table K-59. Undergraduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$15,552	27.67	26.94	26.44	1.23	0.50
\$15,553–\$21,345	18.03	17.73	19.66	-1.63*	-1.93
\$21,346–\$26,822	21.80	21.40	22.73	-0.93	-1.33
\$26,823 or more	31.21	32.49	29.76	1.45	2.73
Unknown	1.29	1.44	1.40	-0.11	0.04

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-60. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit less-than-2-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	4.07	4.15	5.35	-1.28	-1.20
Mideast	16.83	26.45	16.02	0.81	10.43
Great Lakes	15.32	10.63	18.52	-3.20	-7.89
Plains	1.07	2.26	0.89	0.18	1.37
Southeast	30.83	26.95	30.99	-0.16	-4.04
Southwest	1.58	1.54	3.47	-1.89	-1.93
Rocky Mountains	‡	‡	‡	‡	‡
Far West	22.50	21.80	14.20	8.30	7.60
Outlying Areas	7.44	5.94	9.64	-2.20	-3.70
Federal aid status					
Received	56.11	51.56	86.37	-30.26*	-34.81*
Did not receive	43.89	48.44	13.63	30.26*	34.81*
Direct Loan status					
Received	37.45	29.60	64.12	-26.67*	-34.52*
Did not receive	62.55	70.40	35.88	26.67*	34.52*
Total Direct Loan amount received <sup>4</sup>					
None	62.55	70.40	35.88	26.67*	34.52*
\$1–\$3,979	9.30	7.02	14.82	-5.52*	-7.80*
\$3,980–\$5,535	9.19	7.44	17.58	-8.39*	-10.14*
\$5,536–\$9,500	16.11	12.17	27.78	-11.67*	-15.61*
\$9,501 or more	2.84	2.96	3.93	-1.09*	-0.97
Age as of December 31, 2017					
15–23	43.40	36.90	46.15	-2.75	-9.25
24–29	23.43	19.36	25.18	-1.75	-5.82*
30 or older	33.17	32.06	28.67	4.50	3.39
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	6.87	5.99	7.05	-0.18	-1.06
Did not receive	93.13	73.65	92.95	0.18	-19.30*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	1.37	1.04	1.84	-0.47	-0.80
Did not receive	98.63	82.55	98.16	0.47	-15.61
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	3.05	2.54	3.18	-0.13	-0.64
No	96.95	97.46	96.82	0.13	0.64

See notes at end of table.

**Table K-60. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	32.92	23.00	32.58	0.34	-9.58*
Black or African American	23.27	18.62	26.57	-3.30	-7.95*
Hispanic	29.94	28.64	27.20	2.74	1.44
Asian	11.15	11.47	8.53	2.62	2.94
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	1.34	17.12	1.93	-0.59	15.19
Gender					
Male	24.67	27.02	21.57	3.10	5.45
Female	75.33	61.58	78.43	-3.10	-16.85
Unknown	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>5</sup>					
1–143	11.79	18.33	13.22	-1.43	5.11
144–299	21.99	15.94	26.00	-4.01	-10.06*
300–450	43.41	37.80	41.77	1.64	-3.97
451 or more	22.81	27.93	19.01	3.80	8.92
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡
Computer/information science	‡	‡	‡	‡	‡
Engineering	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	21.77	16.04	20.84	0.93	-4.80
Vocational/technical	11.93	12.39	12.05	-0.12	0.34
Other technical/professional	58.53	45.83	62.13	-3.60	-16.30
Unknown	‡	‡	‡	‡	‡
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	94.21	83.92	92.45	1.76	-8.53
Associate's degree	‡	‡	‡	‡	‡
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	3.97	2.55	6.06	-2.09	-3.51
Unknown	‡	‡	‡	‡	‡
Pell Grant status					
Received	46.40	44.18	80.75	-34.35*	-36.57*
Did not receive	53.60	55.82	19.25	34.35*	36.57*

See notes at end of table.

**Table K-60. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit less-than-2-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	53.60	55.82	19.25	34.35*	36.57*
\$1–\$2,960	12.99	12.00	26.88	-13.89*	-14.88*
\$2,961–\$5,919	19.55	19.73	34.32	-14.77*	-14.59*
\$5,920 or more	13.87	12.45	19.55	-5.68*	-7.10*
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–61	33.32	43.69	24.79	8.53	18.90*
62–71	15.77	15.59	18.39	-2.62	-2.80
72–84	17.30	14.44	18.01	-0.71	-3.57
85 or more	32.32	25.76	36.04	-3.72	-10.28
None or unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–12	9.55	6.00	11.10	-1.55	-5.10
13–27	18.54	13.47	23.90	-5.36	-10.43
28–61	25.17	29.61	30.54	-5.37	-0.93
62 or more	26.79	31.72	22.93	3.86	8.79
Unknown	19.95	19.20	11.52	8.43	7.68
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$4,015	35.26	40.52	30.68	4.58	9.84
\$4,016–\$4,511	13.15	14.21	11.98	1.17	2.23
\$4,512–\$5,087	16.13	13.03	21.96	-5.83	-8.93
\$5,088 or more	34.16	31.72	32.60	1.56	-0.88
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-61. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit 2-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	2.26	1.66	1.17	1.09	0.49
Mideast	32.01	18.14	33.22	-1.21	-15.08
Great Lakes	5.94	3.64	3.86	2.08	-0.22
Plains	2.92	3.40	5.20	-2.28	-1.80
Southeast	31.13	25.32	26.10	5.03	-0.78
Southwest	4.44	13.24	4.38	0.06	8.86
Rocky Mountains	14.43	25.07	15.01	-0.58	10.06
Far West	3.92	2.36	6.82	-2.90	-4.46
Outlying Areas	2.95	7.18	4.24	-1.29	2.94
Federal aid status					
Received	63.50	76.10	82.39	-18.89*	-6.29
Did not receive	36.50	23.90	17.61	18.89*	6.29
Direct Loan status					
Received	49.18	53.25	61.47	-12.29*	-8.22*
Did not receive	50.82	46.75	38.53	12.29*	8.22*
Total Direct Loan amount received <sup>4</sup>					
None	50.82	46.75	38.53	12.29*	8.22*
\$1–\$3,972	10.13	10.03	14.22	-4.09*	-4.19*
\$3,973–\$6,500	9.33	12.50	14.62	-5.29*	-2.12
\$6,501–\$9,500	17.27	19.51	19.84	-2.57	-0.33
\$9,501 or more	12.45	11.21	12.78	-0.33	-1.57
Age as of December 31, 2017					
15–23	38.30	42.70	42.13	-3.83	0.57
24–29	28.76	25.72	28.31	0.45	-2.59
30 or older	32.93	30.55	29.56	3.37	0.99
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	18.49	11.97	15.90	2.59	-3.93
Did not receive	81.51	54.68	84.10	-2.59	-29.42*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	10.36	7.19	18.85	-8.49*	-11.66
Did not receive	89.64	73.93	81.15	8.49*	-7.22
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	4.61	7.81	4.77	-0.16	3.04
No	95.39	92.19	95.23	0.16	-3.04

See notes at end of table.



**Table K-61. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit 2-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	39.45	33.61	28.83	10.62*	4.78
Black or African American	26.08	18.16	24.62	1.46	-6.46
Hispanic	18.79	23.46	26.40	-7.61*	-2.94
Asian	2.41	1.43	6.26	-3.85*	-4.83*
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	11.06	21.33	7.05	4.01*	14.28*
Gender					
Male	29.76	35.40	29.30	0.46	6.10
Female	70.24	63.88	70.70	-0.46	-6.82
Unknown	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>5</sup>					
1–233	15.00	10.77	15.15	-0.15	-4.38
234–576	13.59	20.12	14.36	-0.77	5.76
577–1,226	32.26	39.84	31.57	0.69	8.27
1,227 or more	39.15	29.26	38.92	0.23	-9.66
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡
Computer/information science	4.02	1.22	5.45	-1.43*	-4.23
Engineering	3.33	3.66	3.02	0.31	0.64
Education	‡	‡	‡	‡	‡
Business/management	4.51	2.05	4.62	-0.11	-2.57*
Health	49.80	37.79	49.68	0.12	-11.89
Vocational/technical	6.45	15.90	5.06	1.39	10.84*
Other technical/professional	25.52	14.76	26.62	-1.10	-11.86*
Unknown	‡	‡	‡	‡	‡
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	64.72	68.24	61.36	3.36	6.88
Associate's degree	30.23	22.76	33.13	-2.90	-10.37
Postsecondary award, certificate, diploma, or degree program	‡	‡	‡	‡	‡
Bachelor's degree or equivalent	4.71	3.14	5.29	-0.58	-2.15
Unknown	‡	‡	‡	‡	‡
Pell Grant status					
Received	51.61	62.86	73.45	-21.84*	-10.59*
Did not receive	48.39	37.14	26.55	21.84*	10.59*

See notes at end of table.

**Table K-61. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit 2-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	48.39	37.14	26.55	21.84*	10.59*
\$1–\$2,960	13.63	16.86	22.35	-8.72*	-5.49*
\$2,961–\$5,919	16.95	21.53	29.28	-12.33*	-7.75*
\$5,920 or more	21.03	24.48	21.83	-0.80	2.65
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–57	23.84	27.07	19.32	4.52	7.75
58–73	29.39	23.26	31.92	-2.53	-8.66
74–85	14.74	19.37	17.62	-2.88	1.75
86 or more	31.96	30.28	31.08	0.88	-0.80
None or unknown	‡	‡	‡	‡	‡
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
9–25	‡	‡	‡	‡	‡
26–87	‡	‡	‡	‡	‡
88 or more	‡	‡	‡	‡	‡
Unknown	85.82	93.43	85.21	0.61	8.22
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–15	18.29	19.37	16.15	2.14	3.22
16–33	4.22	12.52	5.90	-1.68	6.62
34–90	42.58	44.73	36.01	6.57	8.72
91 or more	30.16	20.99	38.32	-8.16*	-17.33
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-61. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit 2-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$4,092	19.28	14.60	23.32	-4.04	-8.72
\$4,093–\$4,862	25.14	16.71	23.56	1.58	-6.85
\$4,863–\$5,519	23.45	27.16	16.02	7.43*	11.14
\$5,520 or more	27.36	39.15	33.47	-6.11*	5.68
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-62. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit 4-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Midwest	4.62	4.02	4.60	0.02	-0.58
Great Lakes	10.15	8.57	12.01	-1.86	-3.44
Plains	6.40	10.05	6.49	-0.09	3.56
Southeast	33.32	29.23	31.56	1.76	-2.33
Southwest	25.71	25.22	23.59	2.12	1.63
Rocky Mountains	‡	‡	‡	‡	‡
Far West	16.49	18.21	18.87	-2.38	-0.66
Outlying Areas	2.08	3.12	1.33	0.75	1.79
Federal aid status					
Received	70.24	69.87	80.01	-9.77*	-10.14*
Did not receive	29.76	30.13	19.99	9.77*	10.14*
Direct Loan status					
Received	47.78	47.58	62.61	-14.83*	-15.03*
Did not receive	52.22	52.42	37.39	14.83*	15.03*
Total Direct Loan amount received <sup>4</sup>					
None	52.22	52.42	37.39	14.83*	15.03*
\$1–\$4,478	10.17	11.26	12.73	-2.56*	-1.47
\$4,479–\$7,500	12.55	11.41	19.11	-6.56*	-7.70*
\$7,501–\$11,243	12.09	12.57	16.40	-4.31*	-3.83*
\$11,244 or more	12.97	12.34	14.37	-1.40	-2.03
Age as of December 31, 2017					
15–23	19.74	18.20	21.45	-1.71	-3.25
24–29	25.73	26.89	27.57	-1.84	-0.68
30 or older	54.17	54.08	50.73	3.44*	3.35
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	34.71	33.48	32.47	2.24	1.01
Did not receive	65.29	55.35	67.53	-2.24	-12.18*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	3.35	3.02	4.37	-1.02	-1.35
Did not receive	96.65	94.04	95.63	1.02	-1.59
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	11.85	12.16	9.29	2.56*	2.87*
No	88.15	87.84	90.71	-2.56*	-2.87*

See notes at end of table.

**Table K-62. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit 4-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	34.51	36.13	27.15	7.36*	8.98*
Black or African American	22.10	20.79	20.51	1.59	0.28
Hispanic	18.09	16.46	14.78	3.31*	1.68
Asian	2.69	2.52	6.16	-3.47*	-3.64*
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	19.62	20.98	22.81	-3.19*	-1.83
Gender					
Male	36.09	36.50	35.55	0.54	0.95
Female	63.54	63.11	64.19	-0.65	-1.08
Unknown	‡	‡	‡	‡	‡
Institution total undergraduate enrollment <sup>5</sup>					
1–561	8.85	5.46	11.06	-2.21	-5.60
562–2,891	15.01	12.14	15.47	-0.46	-3.33
2,892–25,053	27.83	28.22	29.60	-1.77	-1.38
25,054 or more	48.31	54.19	43.87	4.44	10.32
Major					
Undecided	‡	‡	‡	‡	‡
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	3.59	3.79	4.40	-0.81	-0.61
Life sciences	‡	‡	‡	‡	‡
Physical sciences/mathematics	‡	‡	‡	‡	‡
Computer/information science	6.62	6.23	6.66	-0.04	-0.43
Engineering	‡	‡	‡	‡	‡
Education	5.24	6.34	7.07	-1.83	-0.73
Business/management	24.43	24.39	22.49	1.94*	1.90
Health	30.28	28.64	29.74	0.54	-1.10
Vocational/technical	‡	‡	‡	‡	‡
Other technical/professional	15.14	14.94	14.92	0.22	0.02
Unknown	‡	‡	‡	‡	‡
Degree program (undergraduate only)					
Postsecondary award, certificate, or diploma of less than 2 academic years	6.33	5.41	6.03	0.30	-0.62
Associate's degree	19.47	16.72	17.90	1.57	-1.18
Postsecondary award, certificate, diploma, or degree program	72.78	75.98	74.97	-2.19*	1.01
Bachelor's degree or equivalent	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Pell Grant status					
Received	46.19	45.94	60.37	-14.18*	-14.43*
Did not receive	53.81	54.06	39.63	14.18*	14.43*

See notes at end of table.

**Table K-62. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit 4-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total Pell amount received <sup>6</sup>					
None	53.81	54.06	39.63	14.18*	14.43*
\$1–\$2,960	12.42	13.09	19.48	-7.06*	-6.39*
\$2,961–\$5,919	18.57	17.67	25.36	-6.79*	-7.69*
\$5,920 or more	15.20	15.17	15.53	-0.33	-0.36
Percentage of full-time, first-time degree/certificate-seeking undergraduate students who received any grant aid <sup>5</sup>					
1–60	14.31	18.05	16.12	-1.81	1.93
61–86	34.42	25.98	32.15	2.27	-6.17
87–95	35.09	34.64	35.00	0.09	-0.36
96 or more	8.98	15.45	7.85	1.13	7.60
None or unknown	7.19	5.88	8.88	-1.69	-3.00
Number of full-time, first-time undergraduate students living on campus <sup>5</sup>					
0–11	‡	‡	‡	‡	‡
12–97	‡	‡	‡	‡	‡
98–139	‡	‡	‡	‡	‡
140 or more	3.36	9.65	2.61	0.75	7.04
Unknown	95.80	89.34	96.30	-0.50	-6.96
Number of full-time, first-time undergraduate students receiving Title IV aid with income up to \$30,000 <sup>5</sup>					
0–4	13.16	16.91	15.83	-2.67	1.08
5–19	2.53	2.33	2.32	0.21	0.01
20–91	17.50	15.97	15.54	1.96	0.43
92 or more	58.70	58.44	56.56	2.14	1.88
Unknown	8.10	6.35	9.74	-1.64	-3.39

See notes at end of table.

**Table K-62. Undergraduate student-level differences between means before and after poststratification for select variables for students in private for-profit 4-year institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Average amount of grant and scholarship aid received <sup>5</sup>					
\$0–\$4,597	26.26	32.20	26.74	-0.48	5.46
\$4,598–\$5,571	22.99	15.91	20.48	2.51	-4.57
\$5,572–\$7,199	20.80	19.05	18.54	2.26	0.51
\$7,200 or more	20.77	24.90	22.40	-1.63	2.50
Unknown	9.18	7.95	11.84	-2.66	-3.89

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .

<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.

<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

<sup>5</sup> Categories were defined by quartiles at the institution level.

<sup>6</sup> Pell Grant amounts include summer awards and are categorized by quartiles for students receiving less than \$5,920, with students receiving \$5,920 or more in one category.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-63. Graduate student-level nonresponse bias analysis for select variables for students in all institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Control and level of institution					(Effect size = 0.03)			(Effect size = #)	
Public 4-year, non-doctorate-granting, primarily subbaccalaureate	120	40	0.06	0.04	-0.01	-26.77	0.06	#	#
Public 4-year, non-doctorate-granting, primarily baccalaureate	1,340	130	4.27	4.16	-0.11	-2.54	4.27	#	#
Public 4-year, doctorate-granting	7,350	490	42.41	43.24	0.83	1.95	42.41	#	#
Private nonprofit 4-year, non-doctorate-granting	2,370	660	6.45	6.06	-0.38	-5.94	6.45	#	#
Private nonprofit 4-year, doctorate-granting	6,460	610	37.26	36.61	-0.65	-1.74	37.26	#	#
Private for-profit 4-year	4,080	920	9.55	9.88	0.33	3.43	9.55	#	#
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	1,740	340	7.82	7.34	-0.48	-6.11	7.82	#	#
Mideast	3,650	580	18.69	17.75	-0.93	-4.99	18.69	#	#
Great Lakes	2,240	330	14.64	14.14	-0.50	-3.44	14.64	#	#
Plains	2,020	730	10.43	10.66	0.22	2.11	10.43	#	#
Southeast	6,400	220	21.12	22.39	1.27*	6.02	21.12	#	#
Southwest	2,410	110	10.41	11.27	0.86*	8.28	10.41	#	#
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	2,250	470	11.79	10.97	-0.82	-6.92	11.79	#	#
Outlying Areas	140	30	0.57	0.49	-0.09	-15.08	0.57	#	#
Federal aid status					(Effect size = 0.01)			(Effect size = #)	
Received	8,780	1,250	40.37	40.09	-0.29	-0.71	40.37	#	#
Did not receive	12,940	1,590	59.63	59.91	0.29	0.48	59.63	#	#
Direct Loan status					(Effect size = 0.01)			(Effect size = #)	
Received	7,640	1,000	37.41	37.08	-0.33	-0.88	37.41	#	#
Did not receive	14,080	1,830	62.59	62.92	0.33	0.53	62.59	#	#

See notes at end of table.



**Table K-63. Graduate student-level nonresponse bias analysis for select variables for students in all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.02)			(Effect size = #)	
None	14,080	1,830	62.59	62.92	0.33	0.53	62.59	#	#
\$1–\$10,131	1,840	320	8.32	8.08	-0.24	-2.92	8.32	#	#
\$10,132–\$19,112	1,870	290	10.43	10.81	0.38*	3.61	10.43	#	#
\$19,113–\$20,500	2,440	280	13.08	12.60	-0.48	-3.67	13.08	#	#
\$20,501 or more	1,500	110	5.57	5.58	0.02	0.32	5.57	#	#
Age as of December 31, 2017					(Effect size = 0.09)			(Effect size = 0.08)	
15–23	2,210	250	14.58	14.30	-0.29	-1.96	14.64	0.06	0.41
24–29	7,190	720	37.30	37.77	0.46	1.24	37.79	0.49	1.32
30 or older	12,290	1,740	47.02	47.72	0.70	1.50	47.33	0.31	0.66
Unknown	30	130	1.10	0.21	-0.88*	-80.41	0.24	-0.86*	-78.51
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	15,170	390	66.63	71.84	5.21*	7.83	74.53	7.90*	11.86
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	560	60	2.06	1.82	-0.23*	-11.36	2.06	#	#
Did not receive	21,160	1,560	93.94	98.18	4.23*	4.51	97.94	4.00*	4.26
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = #)			(Effect size = #)	
Yes	2,280	570	4.81	4.80	-0.01	-0.17	4.81	#	#
No	19,440	2,260	95.19	95.20	0.01	0.01	95.19	#	#

See notes at end of table.

**Table K-63. Graduate student-level nonresponse bias analysis for select variables for students in all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	10,750	690	48.47	51.34	2.87*	5.92	48.45	-0.02	-0.03
Black or African American	3,090	260	10.92	11.30	0.39	3.56	10.88	-0.03	-0.28
Hispanic	1,890	200	9.67	9.49	-0.19	-1.94	9.67	#	#
Asian	2,270	90	10.02	10.67	0.65*	6.47	10.03	0.02	0.16
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	2,980	1,560	17.91	14.03	-3.88*	-21.68	17.91	#	#
Gender					(Effect size = 0.08)			(Effect size = 0.08)	
Male	9,490	1,330	39.48	39.99	0.51	1.30	39.74	0.26	0.67
Female	12,200	1,400	59.57	59.85	0.28	0.47	60.09	0.52	0.87
Unknown	30	110	0.95	0.16	-0.79*	-83.51	0.16	-0.78*	-82.74
Institution total graduate enrollment <sup>5</sup>					(Effect size = 0.03)			(Effect size = #)	
1–772	4,990	1,120	7.46	7.02	-0.44	-5.89	7.46	#	#
773–3,422	5,620	560	24.56	23.84	-0.72	-2.92	24.56	#	#
3,423–8,034	5,340	800	30.47	30.44	-0.03	-0.11	30.47	#	#
8,035 or more	5,770	350	37.51	38.70	1.19	3.17	37.51	#	#
Graduate field of study or major					(Effect size = 0.20)			(Effect size = 0.20)	
Humanities	2,050	220	9.19	9.71	0.51*	5.55	9.63	0.44*	4.78
Social/behavioral sciences	1,430	60	5.58	5.90	0.31*	5.59	5.80	0.22	3.91
Life sciences	1,290	80	5.15	5.09	-0.06	-1.11	5.08	-0.07	-1.31
Math/engineering/computer science	2,740	180	11.02	11.65	0.62*	5.65	12.01	0.99*	9.00
Education	4,570	180	15.86	16.56	0.69*	4.34	16.27	0.41	2.60
Business/management	2,990	340	15.74	16.25	0.50*	3.21	16.21	0.48	3.03
Health	3,940	280	22.13	23.63	1.48*	6.68	23.73	1.59*	7.21
Other	1,670	130	10.16	10.49	0.32	3.14	10.54	0.38	3.74
Unknown	330	1,320	5.17	0.73	-4.38*	-84.73	0.72	-4.45*	-86.10

See notes at end of table.

**Table K-63. Graduate student-level nonresponse bias analysis for select variables for students in all institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Degree program (graduate only)					(Effect size = ‡)			(Effect size = ‡)	
Master's degree	9,980	1,650	64.84	65.88	1.04*	1.61	66.35	1.51*	2.33
Postbaccalaureate or post-master's certificate	740	70	3.39	3.41	0.02	0.48	3.47	0.08	2.47
Doctor's degree— research/scholarship	6,770	390	13.34	13.95	0.60*	4.53	13.41	0.07	0.50
Doctor's degree—professional practice	2,910	250	10.85	11.03	0.18	1.65	10.85	#	#
Doctor's degree—other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Not in a degree program	730	50	3.79	3.94	0.15	3.90	4.10	0.30*	7.94
Unknown	140	410	2.81	0.72	-2.09*	-74.25	0.81	-2.00*	-71.03
Student type					(Effect size = 0.01)			(Effect size = #)	
Graduate student	18,810	2,590	89.15	88.97	-0.18	-0.20	89.15	#	#
First-professional student	2,910	250	10.85	11.03	0.18	1.65	10.85	#	#
Total office and administrative support employees <sup>6</sup>					(Effect size = 0.07)			(Effect size = 0.06)	
0–32	4,750	1,330	10.95	10.49	-0.45	-4.15	10.67	-0.28	-2.54
33–82	3,070	580	12.86	12.22	-0.64	-4.94	12.79	-0.07	-0.52
83–206	5,550	270	22.62	23.18	0.56	2.49	23.24	0.62	2.73
207 or more	8,090	610	52.81	53.87	1.06	2.01	53.06	0.25	0.47
Unknown	260	50	0.76	0.23	-0.54*	-70.20	0.24	-0.52*	-68.18

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the student base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-64. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡	‡	‡	‡	‡
Direct Loan status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	100	30	56.56	45.86	-10.70	-18.92	45.03	-11.53	-20.39
Total Direct Loan amount received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
None	100	30	56.56	45.86	-10.70	-18.92	45.03	-11.53	-20.39
\$1–\$5,871	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$5,872–\$10,000	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$10,001–\$17,863	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$17,864 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	‡	‡	‡	‡	‡	‡	‡	‡	‡
24–29	‡	‡	‡	‡	‡	‡	‡	‡	‡
30 or older	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-64. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	‡	‡	‡	‡	‡	‡	‡	‡	‡
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	‡	‡	‡	‡	‡	‡	‡	‡	‡
Black or African American	‡	‡	‡	‡	‡	‡	‡	‡	‡
Hispanic	‡	‡	‡	‡	‡	‡	‡	‡	‡
Asian	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	‡	‡	‡	‡	‡	‡	‡	‡	‡
Female	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1	‡	‡	‡	‡	‡	‡	‡	‡	‡
2–28	‡	‡	‡	‡	‡	‡	‡	‡	‡
29 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-64. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Graduate field of study or major					(Effect size = ‡)			(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Math/engineering/computer science	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree program (graduate only)					(Effect size = ‡)			(Effect size = ‡)	
Master's degree	‡	‡	‡	‡	‡	‡	‡	‡	‡
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—professional practice	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-64. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–13	‡	‡	‡	‡	‡	‡	‡	‡	‡
14–26	‡	‡	‡	‡	‡	‡	‡	‡	‡
27–116	‡	‡	‡	‡	‡	‡	‡	‡	‡
117 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the student base weight.

<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.

<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).

<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>5</sup> Categories were defined by quartiles.

<sup>6</sup> Categories were defined by quartiles at the institution level.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-65. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	40	50	8.84	3.67	-5.17	-58.48	3.71	-5.13	-58.08
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = 0.03)			(Effect size = 0.01)	
Received	530	40	31.57	30.40	-1.18	-3.73	31.19	-0.38	-1.21
Did not receive	810	90	68.43	69.60	1.18	1.72	68.81	0.38	0.56
Direct Loan status					(Effect size = 0.03)			(Effect size = 0.01)	
Received	440	40	28.81	27.39	-1.42	-4.93	28.15	-0.66	-2.27
Did not receive	900	90	71.19	72.61	1.42	2.00	71.85	0.66	0.92
Total Direct Loan amount received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
None	900	90	71.19	72.61	1.42	2.00	71.85	0.66	0.92
\$1–\$7,471	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$7,472–\$13,794	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$13,795–\$20,500	‡	‡	‡	‡	‡	‡	‡	‡	‡
\$20,501 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	‡	‡	‡	‡	‡	‡	‡	‡	‡
24–29	400	30	27.80	27.54	-0.26	-0.92	28.12	0.32	1.17
30 or older	750	60	55.43	56.67	1.24	2.24	55.21	-0.22	-0.39
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-65. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	1,000	40	77.42	83.87	6.45*	8.33	85.72	8.30*	10.72
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	1,290	60	90.78	97.97	7.19*	7.92	97.38	6.60*	7.27
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = ‡)			(Effect size = ‡)	
Yes	‡	‡	‡	‡	‡	‡	‡	‡	‡
No	1,100	110	96.13	95.97	-0.16	-0.17	95.69	-0.44*	-0.46
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	780	40	52.91	56.88	3.97	7.51	54.72	1.81	3.42
Black or African American	‡	‡	‡	‡	‡	‡	‡	‡	‡
Hispanic	‡	‡	‡	‡	‡	‡	‡	‡	‡
Asian	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	130	60	15.93	11.99	-3.94	-24.75	13.80	-2.13	-13.34
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	590	50	36.68	37.34	0.67	1.81	37.49	0.81	2.22
Female	740	70	63.08	62.53	-0.55	-0.88	62.34	-0.75	-1.18
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–455	340	40	7.59	7.43	-0.16	-2.11	7.98	0.40	5.22
456–871	330	30	15.94	16.31	0.36	2.28	15.85	-0.09	-0.55
872–2,019	340	30	32.95	31.79	-1.16	-3.52	31.82	-1.13	-3.42
2,020 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-65. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Graduate field of study or major					(Effect size = ‡)			(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Math/engineering/computer science	‡	‡	‡	‡	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡	‡	‡	‡	‡
Others	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree program (graduate only)					(Effect size = ‡)			(Effect size = ‡)	
Master's degree	1,080	70	72.81	74.25	1.44	1.98	74.16	1.35	1.85
Postbaccalaureate or post-master-s certificate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—professional practice	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Student type					(Effect size = ‡)			(Effect size = ‡)	
Graduate student	1,340	130	99.99	99.99	#	#	99.99	#	#
First-professional student	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-65. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–42	‡	‡	‡	‡	‡	‡	‡	‡	‡
43–70	230	30	17.50	14.40	-3.10	-17.70	13.94	-3.55	-20.30
71–119	‡	‡	‡	‡	‡	‡	‡	‡	‡
120 or more	460	50	53.18	54.56	1.38	2.60	54.45	1.27	2.39
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the student base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-66. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	1,150	110	14.43	12.75	-1.68	-11.63	13.37	-1.06	-7.34
Great Lakes	860	80	17.00	16.86	-0.15	-0.86	17.06	0.05	0.30
Plains	460	50	8.03	8.48	0.45*	5.62	8.42	0.40*	4.96
Southeast	2,650	70	26.90	28.31	1.41*	5.24	26.92	0.02	0.09
Southwest	850	90	13.59	14.19	0.60	4.40	13.46	-0.13	-0.98
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	590	50	11.84	10.96	-0.88	-7.45	12.44	0.61	5.11
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = #)			(Effect size = #)	
Received	2,580	180	33.96	33.79	-0.17	-0.50	33.88	-0.08	-0.24
Did not receive	4,770	310	66.04	66.21	0.17	0.26	66.12	0.08	0.12
Direct Loan status					(Effect size = #)			(Effect size = #)	
Received	2,310	160	32.07	31.86	-0.20	-0.63	32.01	-0.06	-0.19
Did not receive	5,040	320	67.93	68.14	0.20	0.30	67.99	0.06	0.09
Total Direct Loan amount received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
None	5,040	320	67.93	68.14	0.20	0.30	67.99	0.06	0.09
\$1–\$11,050	570	50	8.41	7.84	-0.57*	-6.72	7.85	-0.56	-6.69
\$11,051–\$20,500	1,260	90	18.57	18.93	0.36	1.96	19.19	0.62	3.36
\$20,501 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	900	70	17.27	17.15	-0.12	-0.68	17.68	0.41	2.35
24–29	2,810	160	41.57	41.87	0.30	0.71	41.75	0.18	0.42
30 or older	3,620	220	39.97	40.53	0.56	1.39	40.08	0.11	0.28
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-66. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	4,850	160	66.35	69.57	3.21*	4.84	71.96	5.61*	8.45
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	6,960	270	93.26	97.10	3.84*	4.12	96.76	3.50*	3.75
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.01)			(Effect size = #)	
Yes	540	40	3.29	3.39	0.10	3.04	3.37	0.08	2.29
No	6,810	450	96.71	96.61	-0.10	-0.10	96.63	-0.08	-0.08
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	3,870	120	49.75	52.52	2.77*	5.58	49.77	0.02	0.04
Black or African American	740	40	9.25	9.41	0.16	1.70	9.14	-0.11	-1.19
Hispanic	550	30	10.07	9.92	-0.14	-1.44	9.96	-0.10	-1.01
Asian	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	1,070	260	17.23	13.69	-3.54*	-20.57	17.41	0.18	1.02
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	3,330	190	40.40	41.06	0.66	1.63	41.19	0.79	1.95
Female	4,020	270	58.82	58.84	0.03	0.04	58.70	-0.12	-0.20
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–2,606	1,790	190	13.22	12.13	-1.10*	-8.29	12.33	-0.89*	-6.73
2,607–5,353	1,760	190	22.74	21.86	-0.88	-3.87	22.22	-0.52	-2.29
5,354–9,577	‡	‡	‡	‡	‡	‡	‡	‡	‡
9,578 or more	1,810	70	33.70	34.49	0.79	2.34	34.00	0.30	0.90

See notes at end of table.

**Table K-66. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Graduate field of study or major					(Effect size = ‡)			(Effect size = ‡)	
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Math/engineering/computer science	1,170	40	15.56	16.33	0.76*	4.91	16.97	1.42*	9.10
Education	1,570	60	15.60	16.09	0.49	3.11	15.80	0.19	1.24
Business/management	560	30	11.65	11.86	0.21	1.80	11.78	0.13	1.13
Health	1,350	40	20.14	21.38	1.23*	6.08	20.94	0.80*	3.98
Others	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Degree program (graduate only)					(Effect size = ‡)			(Effect size = ‡)	
Master's degree	2,080	200	58.80	59.65	0.85	1.45	59.97	1.17*	1.99
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	3,100	110	18.84	19.25	0.41	2.19	18.84	-0.01	-0.03
Doctor's degree—professional practice	1,210	60	10.66	10.78	0.12	1.09	10.68	0.02	0.20
Doctor's degree—other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	80	70	2.67	1.28	-1.39*	-52.16	1.48	-1.19*	-44.56
Student type					(Effect size = #)			(Effect size = #)	
Graduate student	6,140	430	89.34	89.22	-0.12	-0.13	89.32	-0.02	-0.02
First-professional student	1,210	60	10.66	10.78	0.12	1.09	10.68	0.02	0.20

See notes at end of table.

**Table K-66. Graduate student-level nonresponse bias analysis for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–140	1,090	90	7.88	7.40	-0.48	-6.06	7.36	-0.52	-6.57
141–249	1,750	100	18.75	18.92	0.17	0.91	19.19	0.44	2.34
250–532	1,890	190	25.81	25.07	-0.74	-2.87	25.90	0.10	0.37
533 or more	2,620	90	47.48	48.61	1.13	2.38	47.55	0.07	0.14
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the student base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-67. Graduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	320	350	13.24	10.49	-2.75	-20.76	11.34	-1.90	-14.38
Great Lakes	340	40	15.02	15.95	0.93	6.19	18.08	3.07*	20.41
Plains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southeast	350	90	14.50	14.03	-0.47	-3.24	12.85	-1.65	-11.36
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	330	120	7.95	5.71	-2.24	-28.18	6.70	-1.26	-15.79
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = #)			(Effect size = 0.03)	
Received	1,120	310	42.80	42.82	0.02	0.05	44.38	1.59	3.70
Did not receive	1,250	340	57.20	57.18	-0.02	-0.04	55.62	-1.59	-2.77
Direct Loan status					(Effect size = #)			(Effect size = 0.03)	
Received	990	220	39.44	39.47	0.04	0.09	41.04	1.60	4.07
Did not receive	1,380	440	60.56	60.53	-0.04	-0.06	58.96	-1.60	-2.65
Total Direct Loan amount received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
None	1,380	440	60.56	60.53	-0.04	-0.06	58.96	-1.60	-2.65
\$1–\$7,500	240	60	12.17	12.72	0.55	4.49	12.30	0.13	1.07
\$7,501–\$13,731	250	50	11.10	11.42	0.32	2.88	11.47	0.36	3.27
\$13,732–\$20,500	460	100	15.30	14.40	-0.90	-5.85	16.44	1.13	7.41
\$20,501 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	220	70	8.93	9.03	0.10	1.12	9.47	0.54	6.07
24–29	640	140	26.50	26.52	0.02	0.08	27.90	1.40	5.30
30 or older	1,510	400	62.83	64.34	1.51	2.40	62.49	-0.34	-0.55
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-67. Graduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	1,800	30	71.03	82.93	11.91*	16.77	85.40	14.37*	20.24
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	2,340	420	93.34	99.39	6.05*	6.48	99.33	5.99*	6.42
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.02)			(Effect size = 0.02)	
Yes	370	240	5.77	5.21	-0.56	-9.64	5.30	-0.47	-8.09
No	2,000	410	94.23	94.79	0.56	0.59	94.70	0.47	0.50
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	1,470	230	62.27	67.81	5.55*	8.91	62.82	0.55	0.89
Black or African American	250	80	10.52	11.01	0.49	4.61	10.76	0.23	2.19
Hispanic	250	80	9.17	8.31	-0.86	-9.42	9.45	0.28	3.08
Asian	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	190	250	11.08	5.49	-5.59*	-50.49	9.84	-1.24	-11.20
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	950	340	33.42	33.98	0.56	1.66	34.17	0.75	2.24
Female	1,420	290	65.36	65.91	0.55	0.84	65.71	0.35	0.53
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>5</sup>					(Effect size = 0.03)			(Effect size = 0.09)	
1–266	620	150	12.69	12.84	0.15	1.20	12.90	0.22	1.71
267–655	650	100	19.08	18.05	-1.03	-5.41	20.33	1.25	6.55
656–1,301	740	60	26.18	27.36	1.19	4.53	29.04	2.87	10.96
1,302 or more	370	340	42.05	41.75	-0.30	-0.72	37.72	-4.33	-10.31

See notes at end of table.

**Table K-67. Graduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Graduate field of study or major			(Effect size = ‡)				(Effect size = ‡)		
Humanities	‡	‡	‡	‡	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Math/engineering/computer science	120	40	3.22	3.47	0.25	7.77	3.46	0.24	7.33
Education	560	50	20.17	22.24	2.13*	10.57	22.51	2.34*	11.58
Business/management	650	160	29.87	31.88	2.07	6.94	31.03	1.17	3.90
Health	300	50	19.60	21.82	2.29*	11.68	20.70	1.10	5.63
Others	210	40	4.95	5.17	0.23	4.75	5.87	0.92	18.60
Unknown	110	270	10.49	3.09	-7.63*	-72.74	2.77	-7.72*	-73.57
Degree program (graduate only)			(Effect size = ‡)				(Effect size = ‡)		
Master's degree	2,180	470	85.84	89.95	4.12*	4.79	89.96	4.12*	4.80
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—professional practice	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Student type			(Effect size = ‡)				(Effect size = ‡)		
Graduate student	2,370	650	99.90	100.00	0.10	0.10	100.00	0.10	0.10
First-professional student	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-67. Graduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–15	420	130	12.33	11.27	-1.06	-8.60	11.95	-0.37	-3.02
16–30	450	100	14.16	13.40	-0.76	-5.39	13.78	-0.38	-2.67
31–56	‡	‡	‡	‡	‡	‡	‡	‡	‡
57 or more	830	390	50.21	49.64	-0.57	-1.13	47.64	-2.56	-5.10
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the student base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-68. Graduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	830	290	14.61	13.60	-1.02	-6.95	14.05	-0.57	-3.88
Mideast	1,900	90	28.78	28.99	0.21	0.72	30.16	1.38	4.80
Great Lakes	600	110	12.78	11.12	-1.65*	-12.94	11.17	-1.61*	-12.59
Plains	630	40	8.26	8.51	0.25	3.06	8.08	-0.18	-2.19
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	530	40	12.83	13.06	0.23	1.79	13.37	0.54	4.19
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = 0.01)			(Effect size = 0.01)	
Received	2,300	220	42.44	41.82	-0.62	-1.45	42.03	-0.41	-0.97
Did not receive	4,160	390	57.56	58.18	0.62	1.07	57.97	0.41	0.71
Direct Loan status					(Effect size = 0.01)			(Effect size = 0.01)	
Received	2,010	190	39.70	39.00	-0.70	-1.76	39.16	-0.54	-1.35
Did not receive	4,440	420	60.30	61.00	0.70	1.16	60.84	0.54	0.89
Total Direct Loan amount received <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
None	4,440	420	60.30	61.00	0.70	1.16	60.84	0.54	0.89
\$1–\$11,336	500	60	8.38	8.35	-0.03	-0.39	8.44	0.06	0.69
\$11,337–\$20,500	1,080	110	23.62	22.80	-0.82	-3.46	22.84	-0.78	-3.30
\$20,501 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	740	70	15.69	15.17	-0.52	-3.35	15.33	-0.36	-2.29
24–29	2,530	250	41.47	42.39	0.93	2.23	42.16	0.69	1.67
30 or older	3,190	260	41.62	42.43	0.81	1.94	42.50	0.88	2.10
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-68. Graduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	4,360	120	65.82	72.49	6.67*	10.13	75.53	9.70*	14.74
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	6,400	320	93.77	98.79	5.01*	5.35	98.60	4.83*	5.15
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = #)			(Effect size = #)	
Yes	570	50	4.42	4.48	0.07	1.47	4.47	0.06	1.27
No	5,880	560	95.58	95.52	-0.07	-0.07	95.53	-0.06	-0.06
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	3,070	160	47.52	50.84	3.32*	6.98	47.55	0.03	0.06
Black or African American	630	30	8.61	9.25	0.64*	7.45	8.82	0.21	2.45
Hispanic	570	30	9.47	9.14	-0.33	-3.47	9.32	-0.14	-1.50
Asian	880	50	13.01	14.07	1.06*	8.14	13.07	0.05	0.40
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	1,100	330	18.72	13.95	-4.77*	-25.49	18.55	-0.17	-0.89
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	3,160	260	41.86	42.39	0.53	1.27	41.72	-0.14	-0.34
Female	3,280	320	56.76	57.36	0.59	1.05	58.03	1.27	2.24
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>5</sup>					(Effect size = 0.04)			(Effect size = 0.04)	
1–1,302	1,590	190	15.83	14.91	-0.92	-5.82	15.75	-0.08	-0.49
1,303–4,151	1,700	90	29.19	30.48	1.28	4.40	30.83	1.64	5.62
4,152–7,387	1,610	180	23.27	23.82	0.55	2.36	23.28	0.01	0.04
7,388 or more	1,560	150	31.71	30.80	-0.91	-2.87	30.14	-1.57	-4.96

See notes at end of table.

**Table K-68. Graduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Graduate field of study or major					(Effect size = ‡)			(Effect size = ‡)	
Humanities	1,000	90	14.30	15.25	0.93*	6.51	14.72	0.42	2.93
Social/behavioral sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Math/engineering/computer science	1,070	50	9.55	10.11	0.55	5.77	10.45	0.91*	9.51
Education	1,350	30	13.11	13.52	0.40	3.08	13.35	0.24	1.82
Business/management	610	30	15.97	16.85	0.86	5.39	16.98	1.00	6.29
Health	1,030	40	22.08	24.02	1.91*	8.64	24.62	2.55*	11.53
Others	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	40	310	5.56	0.34	-5.12*	-92.01	0.32	-5.24*	-94.21
Degree program (graduate only)					(Effect size = ‡)			(Effect size = ‡)	
Master's degree	2,570	170	63.37	64.69	1.32	2.08	65.27	1.90*	3.00
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	2,440	210	10.13	10.68	0.56*	5.50	10.15	0.02	0.20
Doctor's degree—professional practice	990	90	16.68	17.13	0.45	2.71	16.71	0.03	0.16
Doctor's degree—other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Student type					(Effect size = 0.01)			(Effect size = #)	
Graduate student	5,470	520	83.32	82.87	-0.45	-0.54	83.29	-0.03	-0.03
First-professional student	990	90	16.68	17.13	0.45	2.71	16.71	0.03	0.16

See notes at end of table.

**Table K-68. Graduate student-level nonresponse bias analysis for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–41	1,140	180	13.26	12.68	-0.58	-4.36	12.85	-0.41	-3.07
42–85	750	100	14.31	13.76	-0.55	-3.84	14.25	-0.06	-0.41
86–183	‡	‡	‡	‡	‡	‡	‡	‡	‡
184 or more	2,420	280	48.40	48.93	0.53	1.09	47.86	-0.54	-1.11
Unknown	120	40	1.55	0.33	-1.22*	-79.01	0.35	-1.20*	-77.28

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the student base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-69. Graduate student-level nonresponse bias analysis for select variables for students in private for-profit 4-year institutions: 2017–18**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Bureau of Economic Analysis region <sup>4</sup>					(Effect size = ‡)			(Effect size = ‡)	
New England	‡	‡	‡	‡	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Great Lakes	260	60	11.02	11.57	0.55	4.97	13.92	2.89	26.25
Plains	600	590	30.35	28.56	-1.79	-5.90	28.80	-1.55	-5.11
Southeast	‡	‡	‡	‡	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡	‡	‡	‡	‡
Far West	750	230	11.43	9.61	-1.82	-15.91	9.74	-1.69	-14.79
Outlying Areas	‡	‡	‡	‡	‡	‡	‡	‡	‡
Federal aid status					(Effect size = 0.01)			(Effect size = 0.02)	
Received	2,220	490	63.08	63.55	0.47	0.75	64.06	0.99	1.56
Did not receive	1,860	420	36.92	36.45	-0.47	-1.28	35.94	-0.99	-2.67
Direct Loan status					(Effect size = 0.01)			(Effect size = 0.03)	
Received	1,860	390	54.59	55.30	0.71	1.30	56.10	1.51*	2.77
Did not receive	2,220	530	45.41	44.70	-0.71	-1.56	43.90	-1.51*	-3.33
Total Direct Loan amount received <sup>5</sup>					(Effect size = 0.03)			(Effect size = 0.04)	
None	2,220	530	45.41	44.70	-0.71	-1.56	43.90	-1.51*	-3.33
\$1–\$9,456	430	130	15.34	15.10	-0.24	-1.53	15.40	0.07	0.44
\$9,457–\$16,317	430	130	18.36	19.01	0.65	3.53	19.19	0.83	4.54
\$16,318–\$22,000	490	80	16.18	16.85	0.67	4.11	16.93	0.75	4.62
\$22,001 or more	510	50	4.71	4.34	-0.37	-7.85	4.58	-0.14	-2.91
Age as of December 31, 2017					(Effect size = ‡)			(Effect size = ‡)	
15–23	‡	‡	‡	‡	‡	‡	‡	‡	‡
24–29	780	140	13.67	13.90	0.23	1.68	14.25	0.58	4.25
30 or older	3,140	760	84.82	84.79	-0.03	-0.04	84.48	-0.34	-0.40
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.



**Table K-69. Graduate student-level nonresponse bias analysis for select variables for students in private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Institution aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	3,050	30	63.13	67.39	4.26	6.75	69.56	6.42*	10.17
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
State aid status					(Effect size = ‡)			(Effect size = ‡)	
Received	‡	‡	‡	‡	‡	‡	‡	‡	‡
Did not receive	4,050	490	99.58	99.95	0.37	0.37	99.94	0.36	0.36
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Veteran status					(Effect size = 0.02)			(Effect size = 0.01)	
Yes	560	210	12.84	12.23	-0.60	-4.69	12.43	-0.41	-3.18
No	3,530	700	87.16	87.77	0.60	0.69	87.57	0.41	0.47
Race/ethnicity					(Effect size = ‡)			(Effect size = ‡)	
White	1,470	140	35.38	35.67	0.29	0.82	33.78	-1.60	-4.52
Black or African American	1,280	90	27.11	27.67	0.56	2.07	26.96	-0.15	-0.55
Hispanic	390	50	8.96	9.12	0.16	1.82	8.98	0.02	0.19
Asian	‡	‡	‡	‡	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	490	620	23.18	21.97	-1.21	-5.22	24.99	1.81	7.82
Gender					(Effect size = ‡)			(Effect size = ‡)	
Male	1,430	480	31.52	31.25	-0.27	-0.86	30.42	-1.10	-3.51
Female	2,650	430	68.33	68.64	0.31	0.45	69.48	1.15	1.68
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>5</sup>					(Effect size = ‡)			(Effect size = ‡)	
1–598	1,140	110	6.27	6.34	0.07	1.13	6.37	0.10	1.52
599–4,313	700	650	10.27	7.98	-2.29	-22.29	7.72	-2.55	-24.82
4,314–16,416	1,130	150	27.51	25.70	-1.81	-6.60	27.63	0.12	0.42
16,417 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-69. Graduate student-level nonresponse bias analysis for select variables for students in private for-profit 4-year institutions:  
2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Graduate field of study or major					(Effect size = ‡)			(Effect size = ‡)	
Humanities	190	80	2.14	2.00	-0.14	-6.40	1.90	-0.23	-10.86
Social/behavioral sciences	510	30	5.70	5.75	0.06	1.01	5.53	-0.16	-2.89
Life sciences	‡	‡	‡	‡	‡	‡	‡	‡	‡
Math/engineering/computer science	220	40	3.09	3.01	-0.08	-2.73	2.86	-0.23	-7.44
Education	730	30	20.02	21.22	1.20	5.98	20.23	0.21	1.04
Business/management	990	110	21.90	21.26	-0.64	-2.91	20.63	-1.27	-5.82
Health	1,120	130	38.20	38.42	0.21	0.56	40.18	1.98	5.19
Others	150	40	6.72	6.72	#	0.05	7.13	0.41	6.09
Unknown	140	430	1.24	0.93	-0.31	-25.08	0.89	-0.35	-28.19
Degree program (graduate only)					(Effect size = ‡)			(Effect size = ‡)	
Master's degree	2,040	720	79.85	79.34	-0.51	-0.64	79.56	-0.29	-0.36
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	1,240	70	16.54	17.33	0.80	4.81	17.18	0.64	3.88
Doctor's degree—professional practice	700	100	1.08	0.94	-0.14	-13.00	0.95	-0.13	-11.96
Doctor's degree—other	‡	‡	‡	‡	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡
Student type					(Effect size = 0.01)			(Effect size = 0.01)	
Graduate student	3,380	820	98.92	99.06	0.14	0.14	99.05	0.13	0.13
First-professional student	700	100	1.08	0.94	-0.14	-13.00	0.95	-0.13	-11.96

See notes at end of table.

**Table K-69. Graduate student-level nonresponse bias analysis for select variables for students in private for-profit 4-year institutions: 2017–18—Continued**

Variable	Sample counts		Before nonresponse weight adjustment				After nonresponse weight adjustment		
	Unweighted respondents	Unweighted non-respondents	Full-sample mean, base weighted	Respondent mean, base weighted	Estimated bias <sup>1</sup>	Relative bias <sup>2</sup>	Respondent mean, non-response adjusted	Estimated bias <sup>3</sup>	Relative bias <sup>2</sup>
Total office and administrative support employees <sup>6</sup>					(Effect size = ‡)			(Effect size = ‡)	
0–2	180	90	3.61	3.57	-0.05	-1.25	3.48	-0.13	-3.61
3–7	810	360	12.82	7.46	-5.36	-41.80	7.51	-5.31	-41.44
8–30	1,500	450	39.65	42.06	2.41	6.08	44.61	4.97*	12.52
31 or more	‡	‡	‡	‡	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Bias in the sample mean was estimated as the weighted difference between the respondent and full-sample means, using the student base weight.<sup>2</sup> Relative bias was defined as 100 times the ratio of estimated bias to the weighted full-sample mean.<sup>3</sup> Bias in the sample mean was estimated as the difference between the weighted respondent mean (using the student base weight adjusted for nonresponse) and the weighted full-sample mean (using the student base weight).<sup>4</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>5</sup> Categories were defined by quartiles.<sup>6</sup> Categories were defined by quartiles at the institution level.

NOTE: Effect size was 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. "Student base weight" refers to the student sampling weight (final institution weight times student sampling adjustment) adjusted for student multiplicity and unknown eligibility. Sample sizes rounded to the nearest 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-70. Graduate student-level differences between means before and after poststratification for select variables for students in all institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Control and level of institution					
Public 4-year, non-doctorate-granting, primarily subbaccalaureate	0.06	0.06	0.04	0.02	0.02
Public 4-year, non-doctorate-granting, primarily baccalaureate	4.27	4.27	4.15	0.12	0.12
Public 4-year, doctorate-granting	42.41	42.41	42.27	0.14	0.14
Private nonprofit 4-year, non-doctorate-granting	6.45	6.45	6.50	-0.05	-0.05
Private nonprofit 4-year, doctorate-granting	37.26	37.26	37.12	0.14	0.14
Private for-profit 4-year	9.55	9.55	9.93	-0.38	-0.38
Bureau of Economic Analysis region <sup>3</sup>					
New England	7.82	7.82	8.35	-0.53*	-0.53
Mideast	18.69	18.69	18.12	0.57	0.57
Great Lakes	14.64	14.64	14.64	#	#
Plains	10.43	10.43	9.15	1.28	1.28
Southeast	21.12	21.12	22.19	-1.07	-1.07
Southwest	10.41	10.41	11.12	-0.71	-0.71
Rocky Mountains	‡	‡	‡	‡	‡
Far West	11.79	11.79	11.45	0.34	0.34
Outlying Areas	0.57	0.57	0.91	-0.34	-0.34
Federal aid status					
Received	40.37	40.37	43.27	-2.90*	-2.90*
Did not receive	59.63	59.63	56.73	2.90*	2.90*
Direct Loan status					
Received	37.41	37.41	40.43	-3.02*	-3.02*
Did not receive	62.59	62.59	59.57	3.02*	3.02*
Total Direct Loan amount received <sup>4</sup>					
None	62.59	62.59	59.57	3.02*	3.02*
\$1–\$10,131	8.32	8.32	8.52	-0.20	-0.20
\$10,132–\$19,112	10.43	10.43	11.10	-0.67	-0.67
\$19,113–\$20,500	13.08	13.08	14.15	-1.07*	-1.07
\$20,501 or more	5.57	5.57	6.66	-1.09*	-1.09*
Age as of December 31, 2017					
15–23	14.64	14.58	15.24	-0.60	-0.66
24–29	37.79	37.30	38.68	-0.89	-1.38*
30 or older	47.33	47.02	45.77	1.56*	1.25
Unknown	0.24	1.10	0.30	-0.06	0.80*
Institution aid status					
Received	‡	‡	‡	‡	‡
Did not receive	74.53	66.63	75.32	-0.79	-8.69*
Unknown	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-70. Graduate student-level differences between means before and after poststratification for select variables for students in all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
State aid status					
Received	2.06	2.06	2.25	-0.19	-0.19
Did not receive	97.94	93.94	97.75	0.19	-3.81*
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	4.81	4.81	5.06	-0.25	-0.25
No	95.19	95.19	94.94	0.25	0.25
Race/ethnicity					
White	48.45	48.47	45.97	2.48*	2.50*
Black or African American	10.88	10.92	10.38	0.50	0.54
Hispanic	9.67	9.67	11.62	-1.95*	-1.95*
Asian	10.03	10.02	10.79	-0.76*	-0.77*
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	17.91	17.91	17.52	0.39	0.39
Gender					
Male	39.74	39.48	38.42	1.32*	1.06
Female	60.09	59.57	61.34	-1.25*	-1.77*
Unknown	0.16	0.95	0.24	-0.08	0.71*
Institution total graduate enrollment <sup>4</sup>					
1–772	7.46	7.46	8.24	-0.78*	-0.78*
773–3,422	24.56	24.56	26.70	-2.14*	-2.14*
3,423–8,034	30.47	30.47	30.18	0.29	0.29
8,035 or more	37.51	37.51	34.88	2.63*	2.63*
Graduate field of study or major					
Humanities	9.63	9.19	9.13	0.50	0.06
Social/behavioral sciences	5.80	5.58	5.82	-0.02	-0.24
Life sciences	5.08	5.15	5.27	-0.19	-0.12
Math/engineering/computer science	12.01	11.02	11.94	0.07	-0.92*
Education	16.27	15.86	15.04	1.23*	0.82
Business/management	16.21	15.74	15.51	0.70	0.23
Health	23.73	22.13	25.99	-2.26*	-3.86*
Others	10.54	10.16	10.65	-0.11	-0.49
Unknown	0.72	5.17	0.66	0.06	4.51*
Degree program (graduate only)					
Master's degree	66.35	64.84	69.61	-3.26*	-4.77*
Postbaccalaureate or post-master's certificate	3.47	3.39	3.36	0.11	0.03
Doctor's degree—research/scholarship	13.41	13.34	9.96	3.45*	3.38*
Doctor's degree—professional practice	10.85	10.85	11.37	-0.52	-0.52
Doctor's degree—other	‡	‡	‡	‡	‡
Not in a degree program	4.10	3.79	4.20	-0.10	-0.41
Unknown	0.81	2.81	0.82	-0.01	1.99*

See notes at end of table.

**Table K-70. Graduate student-level differences between means before and after poststratification for select variables for students in all institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Student type					
Graduate student	89.15	89.15	88.63	0.52	0.52
First-professional student	10.85	10.85	11.37	-0.52	-0.52
Total office and administrative support employees <sup>5</sup>					
0–32	10.67	10.95	10.55	0.12	0.40
33–82	12.79	12.86	12.86	-0.07	#
83–206	23.24	22.62	25.47	-2.23*	-2.85*
207 or more	53.06	52.81	50.82	2.24*	1.99
Unknown	0.24	0.76	0.29	-0.05	0.47*

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-71. Graduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	‡	‡	‡	‡	‡
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡
Direct Loan status					
Received	‡	‡	‡	‡	‡
Did not receive	45.03	56.56	48.56	-3.53	8.00
Total Direct Loan amount received <sup>4</sup>					
None	45.03	56.56	48.56	-3.53	8.00
\$1–\$5,871	‡	‡	‡	‡	‡
\$5,872–\$10,000	‡	‡	‡	‡	‡
\$10,001–\$17,863	‡	‡	‡	‡	‡
\$17,864 or more	‡	‡	‡	‡	‡
Age as of December 31, 2017					
15–23	‡	‡	‡	‡	‡
24–29	‡	‡	‡	‡	‡
30 or older	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	‡	‡	‡	‡	‡
Did not receive	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	‡	‡	‡	‡	‡
No	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-71. Graduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	†	†	†	†	†
Black or African American	†	†	†	†	†
Hispanic	†	†	†	†	†
Asian	†	†	†	†	†
American Indian or Alaska Native	†	†	†	†	†
Native Hawaiian or other Pacific Islander	†	†	†	†	†
More than one race	†	†	†	†	†
Unknown	†	†	†	†	†
Gender					
Male	†	†	†	†	†
Female	†	†	†	†	†
Unknown	†	†	†	†	†
Institution total graduate enrollment <sup>4</sup>					
1	†	†	†	†	†
2–28	†	†	†	†	†
29 or more	†	†	†	†	†
Graduate field of study or major					
Humanities	†	†	†	†	†
Social/behavioral sciences	†	†	†	†	†
Life sciences	†	†	†	†	†
Math/engineering/computer science	†	†	†	†	†
Education	†	†	†	†	†
Business/management	†	†	†	†	†
Health	†	†	†	†	†
Others	†	†	†	†	†
Unknown	†	†	†	†	†
Degree program (graduate only)					
Master's degree	†	†	†	†	†
Postbaccalaureate or post-master's certificate	†	†	†	†	†
Doctor's degree—research/scholarship	†	†	†	†	†
Doctor's degree—professional practice	†	†	†	†	†
Doctor's degree—other	†	†	†	†	†
Not in a degree program	†	†	†	†	†
Unknown	†	†	†	†	†

See notes at end of table.



**Table K-71. Graduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>5</sup>					
0–13	‡	‡	‡	‡	‡
14–26	‡	‡	‡	‡	‡
27–116	‡	‡	‡	‡	‡
117 or more	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-72. Graduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡
Great Lakes	‡	‡	‡	‡	‡
Plains	‡	‡	‡	‡	‡
Southeast	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	3.71	8.84	3.73	-0.02	5.11
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	31.19	31.57	34.70	-3.51	-3.13
Did not receive	68.81	68.43	65.30	3.51	3.13
Direct Loan status					
Received	28.15	28.81	32.10	-3.95	-3.29
Did not receive	71.85	71.19	67.90	3.95	3.29
Total Direct Loan amount received <sup>4</sup>					
None	71.85	71.19	67.90	3.95	3.29
\$1–\$7,471	‡	‡	‡	‡	‡
\$7,472–\$13,794	‡	‡	‡	‡	‡
\$13,795–\$20,500	‡	‡	‡	‡	‡
\$20,501 or more	‡	‡	‡	‡	‡
Age as of December 31, 2017					
15–23	‡	‡	‡	‡	‡
24–29	28.12	27.80	30.64	-2.52	-2.84
30 or older	55.21	55.43	54.35	0.86	1.08
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	‡	‡	‡	‡	‡
Did not receive	85.72	77.42	84.83	0.89	-7.41*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	‡	‡	‡	‡	‡
Did not receive	97.38	90.78	97.51	-0.13	-6.73*
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	‡	‡	‡	‡	‡
No	95.69	96.13	95.84	-0.15	0.29

See notes at end of table.

**Table K-72. Graduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	54.72	52.91	59.68	-4.96	-6.77
Black or African American	‡	‡	‡	‡	‡
Hispanic	‡	‡	‡	‡	‡
Asian	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	13.80	15.93	7.88	5.92	8.05
Gender					
Male	37.49	36.68	38.08	-0.59	-1.40
Female	62.34	63.08	61.67	0.67	1.41
Unknown	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>4</sup>					
1–455	7.98	7.59	9.66	-1.68*	-2.07
456–871	15.85	15.94	17.55	-1.70	-1.61
872–2,019	31.82	32.95	33.87	-2.05	-0.92
2,020 or more	‡	‡	‡	‡	‡
Graduate field of study or major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Math/engineering/computer science	‡	‡	‡	‡	‡
Education	‡	‡	‡	‡	‡
Business/management	‡	‡	‡	‡	‡
Health	‡	‡	‡	‡	‡
Others	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Degree program (graduate only)					
Master's degree	74.16	72.81	80.02	-5.86	-7.21
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	‡	‡	‡	‡	‡
Doctor's degree—professional practice	‡	‡	‡	‡	‡
Doctor's degree—other	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Student type					
Graduate student	99.99	99.99	99.99	#	#
First-professional student	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-72. Graduate student-level differences between means before and after poststratification for select variables for students in public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>5</sup>					
0–42	‡	‡	‡	‡	‡
43–70	13.94	17.50	16.23	-2.29	1.27
71–119	‡	‡	‡	‡	‡
120 or more	54.45	53.18	47.30	7.15*	5.88
Unknown	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-73. Graduate student-level differences between means before and after poststratification for select variables for students in public 4-year, doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	13.37	14.43	13.74	-0.37	0.69
Great Lakes	17.06	17.00	16.58	0.48	0.42
Plains	8.42	8.03	8.05	0.37	-0.02
Southeast	26.92	26.90	27.62	-0.70	-0.72
Southwest	13.46	13.59	13.88	-0.42	-0.29
Rocky Mountains	‡	‡	‡	‡	‡
Far West	12.44	11.84	11.74	0.70	0.10
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	33.88	33.96	36.90	-3.02*	-2.94*
Did not receive	66.12	66.04	63.10	3.02*	2.94*
Direct Loan status					
Received	32.01	32.07	34.89	-2.88*	-2.82*
Did not receive	67.99	67.93	65.11	2.88*	2.82*
Total Direct Loan amount received <sup>4</sup>					
None	67.99	67.93	65.11	2.88*	2.82*
\$1–\$11,050	7.85	8.41	8.96	-1.11*	-0.55
\$11,051–\$20,500	19.19	18.57	20.68	-1.49*	-2.11*
\$20,501 or more	‡	‡	‡	‡	‡
Age as of December 31, 2017					
15–23	17.68	17.27	18.95	-1.27*	-1.68*
24–29	41.75	41.57	41.19	0.56	0.38
30 or older	40.08	39.97	39.21	0.87	0.76
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	‡	‡	‡	‡	‡
Did not receive	71.96	66.35	73.60	-1.64	-7.25*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	‡	‡	‡	‡	‡
Did not receive	96.76	93.26	96.29	0.47*	-3.03*
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	3.37	3.29	3.56	-0.19	-0.27*
No	96.63	96.71	96.44	0.19	0.27*

See notes at end of table.

**Table K-73. Graduate student-level differences between means before and after poststratification for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	49.77	49.75	49.79	-0.02	-0.04
Black or African American	9.14	9.25	8.23	0.91*	1.02*
Hispanic	9.96	10.07	10.74	-0.78	-0.67
Asian	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	17.41	17.23	17.05	0.36	0.18
Gender					
Male	41.19	40.40	39.85	1.34	0.55
Female	58.70	58.82	60.00	-1.30	-1.18
Unknown	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>4</sup>					
1–2,606	12.33	13.22	14.40	-2.07*	-1.18
2,607–5,353	22.22	22.74	24.76	-2.54*	-2.02*
5,354–9,577	‡	‡	‡	‡	‡
9,578 or more	34.00	33.70	30.20	3.80*	3.50*
Graduate field of study or major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Math/engineering/computer science	16.97	15.56	16.77	0.20	-1.21
Education	15.80	15.60	14.76	1.04*	0.84
Business/management	11.78	11.65	12.10	-0.32	-0.45
Health	20.94	20.14	22.95	-2.01*	-2.81*
Others	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Degree program (graduate only)					
Master's degree	59.97	58.80	66.29	-6.32*	-7.49*
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	18.84	18.84	12.50	6.34*	6.34*
Doctor's degree—professional practice	10.68	10.66	10.87	-0.19	-0.21
Doctor's degree—other	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡
Unknown	1.48	2.67	1.39	0.09	1.28*
Student type					
Graduate student	89.32	89.34	89.13	0.19	0.21
First-professional student	10.68	10.66	10.87	-0.19	-0.21

See notes at end of table.

**Table K-73. Graduate student-level differences between means before and after poststratification for select variables for students in public 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>5</sup>					
0–140	7.36	7.88	8.63	-1.27*	-0.75
141–249	19.19	18.75	21.38	-2.19*	-2.63*
250–532	25.90	25.81	27.08	-1.18	-1.27
533 or more	47.55	47.48	42.92	4.63*	4.56*
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-74. Graduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	11.34	13.24	12.33	-0.99	0.91
Great Lakes	18.08	15.02	16.11	1.97	-1.09
Plains	‡	‡	‡	‡	‡
Southeast	12.85	14.50	11.29	1.56	3.21
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	6.70	7.95	7.61	-0.91	0.34
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	44.38	42.80	44.06	0.32	-1.26
Did not receive	55.62	57.20	55.94	-0.32	1.26
Direct Loan status					
Received	41.04	39.44	40.99	0.05	-1.55
Did not receive	58.96	60.56	59.01	-0.05	1.55
Total Direct Loan amount received <sup>4</sup>					
None	58.96	60.56	59.01	-0.05	1.55
\$1–\$7,500	12.30	12.17	10.37	1.93*	1.80
\$7,501–\$13,731	11.47	11.10	9.99	1.48	1.11
\$13,732–\$20,500	16.44	15.30	19.29	-2.85*	-3.99*
\$20,501 or more	‡	‡	‡	‡	‡
Age as of December 31, 2017					
15–23	9.47	8.93	8.95	0.52	-0.02
24–29	27.90	26.50	29.78	-1.88*	-3.28*
30 or older	62.49	62.83	61.10	1.39	1.73
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	‡	‡	‡	‡	‡
Did not receive	85.40	71.03	86.00	-0.60	-14.97*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	‡	‡	‡	‡	‡
Did not receive	99.33	93.34	99.33	#	-5.99*
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	5.30	5.77	4.51	0.79*	1.26
No	94.70	94.23	95.49	-0.79*	-1.26

See notes at end of table.



**Table K-74. Graduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	62.82	62.27	54.75	8.07*	7.52*
Black or African American	10.76	10.52	9.85	0.91*	0.67
Hispanic	9.45	9.17	15.47	-6.02*	-6.30*
Asian	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	9.84	11.08	10.00	-0.16	1.08
Gender					
Male	34.17	33.42	33.92	0.25	-0.50
Female	65.71	65.36	65.91	-0.20	-0.55
Unknown	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>4</sup>					
1–266	12.90	12.69	14.16	-1.26	-1.47
267–655	20.33	19.08	22.03	-1.70	-2.95
656–1,301	29.04	26.18	29.61	-0.57	-3.43
1,302 or more	37.72	42.05	34.21	3.51	7.84*
Graduate field of study or major					
Humanities	‡	‡	‡	‡	‡
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Math/engineering/computer science	3.46	3.22	3.10	0.36	0.12
Education	22.51	20.17	22.13	0.38	-1.96
Business/management	31.03	29.87	28.59	2.44	1.28
Health	20.70	19.60	21.86	-1.16	-2.26
Others	5.87	4.95	6.52	-0.65*	-1.57*
Unknown	2.77	10.49	2.53	0.24	7.96*
Degree program (graduate only)					
Master's degree	89.96	85.84	91.02	-1.06	-5.18*
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	‡	‡	‡	‡	‡
Doctor's degree—professional practice	‡	‡	‡	‡	‡
Doctor's degree—other	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Student type					
Graduate student	100.00	99.90	100.00	#	-0.10
First-professional student	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-74. Graduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, non-doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>5</sup>					
0–15	11.95	12.33	11.86	0.09	0.47
16–30	13.78	14.16	14.90	-1.12	-0.74
31–56	‡	‡	‡	‡	‡
57 or more	47.64	50.21	48.41	-0.77	1.80
Unknown	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-75. Graduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	14.05	14.61	14.82	-0.77	-0.21
Mideast	30.16	28.78	28.37	1.79	0.41
Great Lakes	11.17	12.78	11.91	-0.74	0.87
Plains	8.08	8.26	7.55	0.53	0.71
Southeast	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	13.37	12.83	12.44	0.93	0.39
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	42.03	42.44	44.48	-2.45*	-2.04
Did not receive	57.97	57.56	55.52	2.45*	2.04
Direct Loan status					
Received	39.16	39.70	42.20	-3.04*	-2.50*
Did not receive	60.84	60.30	57.80	3.04*	2.50*
Total Direct Loan amount received <sup>4</sup>					
None	60.84	60.30	57.80	3.04*	2.50*
\$1–\$11,336	8.44	8.38	9.44	-1.00*	-1.06*
\$11,337–\$20,500	22.84	23.62	23.01	-0.17	0.61
\$20,501 or more	‡	‡	‡	‡	‡
Age as of December 31, 2017					
15–23	15.33	15.69	15.66	-0.33	0.03
24–29	42.16	41.47	43.70	-1.54*	-2.23*
30 or older	42.50	41.62	40.63	1.87*	0.99
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	‡	‡	‡	‡	‡
Did not receive	75.53	65.82	75.92	-0.39	-10.10*
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	‡	‡	‡	‡	‡
Did not receive	98.60	93.77	98.60	#	-4.83*
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	4.47	4.42	4.33	0.14	0.09
No	95.53	95.58	95.67	-0.14	-0.09

See notes at end of table.

**Table K-75. Graduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	47.55	47.52	43.74	3.81*	3.78*
Black or African American	8.82	8.61	9.12	-0.30	-0.51
Hispanic	9.32	9.47	10.51	-1.19*	-1.04
Asian	13.07	13.01	14.02	-0.95	-1.01
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	18.55	18.72	19.15	-0.60	-0.43
Gender					
Male	41.72	41.86	40.47	1.25	1.39
Female	58.03	56.76	59.15	-1.12	-2.39
Unknown	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>4</sup>					
1–1,302	15.75	15.83	16.69	-0.94	-0.86
1,303–4,151	30.83	29.19	32.69	-1.86*	-3.50*
4,152–7,387	23.28	23.27	21.63	1.65	1.64
7,388 or more	30.14	31.71	28.99	1.15	2.72
Graduate field of study or major					
Humanities	14.72	14.30	13.96	0.76	0.34
Social/behavioral sciences	‡	‡	‡	‡	‡
Life sciences	‡	‡	‡	‡	‡
Math/engineering/computer science	10.45	9.55	10.91	-0.46	-1.36
Education	13.35	13.11	12.18	1.17*	0.93
Business/management	16.98	15.97	16.04	0.94	-0.07
Health	24.62	22.08	27.02	-2.40*	-4.94*
Others	‡	‡	‡	‡	‡
Unknown	0.32	5.56	0.36	-0.04	5.20*
Degree program (graduate only)					
Master's degree	65.27	63.37	67.05	-1.78	-3.68*
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	10.15	10.13	7.00	3.15*	3.13*
Doctor's degree—professional practice	16.71	16.68	17.78	-1.07	-1.10
Doctor's degree—other	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Student type					
Graduate student	83.29	83.32	82.22	1.07	1.10
First-professional student	16.71	16.68	17.78	-1.07	-1.10

See notes at end of table.

**Table K-75. Graduate student-level differences between means before and after poststratification for select variables for students in private nonprofit 4-year, doctorate-granting institutions: 2017–18—Continued**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>5</sup>					
0–41	12.85	13.26	12.97	-0.12	0.29
42–85	14.25	14.31	14.12	0.13	0.19
86–183	‡	‡	‡	‡	‡
184 or more	47.86	48.40	45.88	1.98	2.52
Unknown	0.35	1.55	0.35	#	1.20*

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.<sup>5</sup> Categories were defined by quartiles at the institution level.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-76. Graduate student-level differences between means before and after poststratification for select variables for students in private for-profit 4-year institutions: 2017–18**

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Bureau of Economic Analysis region <sup>3</sup>					
New England	‡	‡	‡	‡	‡
Mideast	‡	‡	‡	‡	‡
Great Lakes	13.92	11.02	15.29	-1.37	-4.27
Plains	28.80	30.35	18.78	10.02	11.57*
Southeast	‡	‡	‡	‡	‡
Southwest	‡	‡	‡	‡	‡
Rocky Mountains	‡	‡	‡	‡	‡
Far West	9.74	11.43	12.26	-2.52	-0.83
Outlying Areas	‡	‡	‡	‡	‡
Federal aid status					
Received	64.06	63.08	68.89	-4.83	-5.81
Did not receive	35.94	36.92	31.11	4.83	5.81
Direct Loan status					
Received	56.10	54.59	60.44	-4.34	-5.85
Did not receive	43.90	45.41	39.56	4.34	5.85
Total Direct Loan amount received <sup>4</sup>					
None	43.90	45.41	39.56	4.34	5.85
\$1–\$9,456	15.40	15.34	16.95	-1.55	-1.61
\$9,457–\$16,317	19.19	18.36	20.24	-1.05	-1.88
\$16,318–\$22,000	16.93	16.18	16.22	0.71	-0.04
\$22,001 or more	4.58	4.71	7.03	-2.45*	-2.32*
Age as of December 31, 2017					
15–23	‡	‡	‡	‡	‡
24–29	14.25	13.67	18.45	-4.20*	-4.78*
30 or older	84.48	84.82	79.24	5.24*	5.58*
Unknown	‡	‡	‡	‡	‡
Institution aid status					
Received	‡	‡	‡	‡	‡
Did not receive	69.56	63.13	69.31	0.25	-6.18
Unknown	‡	‡	‡	‡	‡
State aid status					
Received	‡	‡	‡	‡	‡
Did not receive	99.94	99.58	99.88	0.06	-0.30
Unknown	‡	‡	‡	‡	‡
Veteran status					
Yes	12.43	12.84	14.91	-2.48	-2.07
No	87.57	87.16	85.09	2.48	2.07

See notes at end of table.

**Table K-76. Graduate student-level differences between means before and after poststratification for select variables for students in private for-profit 4-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Race/ethnicity					
White	33.78	35.38	26.66	7.12	8.72*
Black or African American	26.96	27.11	24.74	2.22	2.37
Hispanic	8.98	8.96	17.34	-8.36*	-8.38*
Asian	‡	‡	‡	‡	‡
American Indian or Alaska Native	‡	‡	‡	‡	‡
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡
More than one race	‡	‡	‡	‡	‡
Unknown	24.99	23.18	22.37	2.62	0.81
Gender					
Male	30.42	31.52	27.82	2.60	3.70
Female	69.48	68.33	72.05	-2.57	-3.72
Unknown	‡	‡	‡	‡	‡
Institution total graduate enrollment <sup>4</sup>					
1–598	6.37	6.27	8.36	-1.99	-2.09
599–4,313	7.72	10.27	9.76	-2.04	0.51
4,314–16,416	27.63	27.51	30.69	-3.06	-3.18
16,417 or more	‡	‡	‡	‡	‡
Graduate field of study or major					
Humanities	1.90	2.14	3.37	-1.47	-1.23
Social/behavioral sciences	5.53	5.70	7.92	-2.39*	-2.22*
Life sciences	‡	‡	‡	‡	‡
Math/engineering/computer science	2.86	3.09	2.22	0.64	0.87*
Education	20.23	20.02	15.89	4.34	4.13
Business/management	20.63	21.90	17.61	3.02	4.29
Health	40.18	38.20	43.82	-3.64	-5.62
Others	7.13	6.72	7.61	-0.48	-0.89
Unknown	0.89	1.24	0.76	0.13	0.48
Degree program (graduate only)					
Master's degree	79.56	79.85	75.04	4.52	4.81
Postbaccalaureate or post-master's certificate	‡	‡	‡	‡	‡
Doctor's degree—research/scholarship	17.18	16.54	20.92	-3.74	-4.38
Doctor's degree—professional practice	0.95	1.08	1.72	-0.77	-0.64
Doctor's degree—other	‡	‡	‡	‡	‡
Not in a degree program	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡
Student type					
Graduate student	99.05	98.92	98.28	0.77	0.64
First-professional student	0.95	1.08	1.72	-0.77	-0.64

See notes at end of table.

**Table K-76. Graduate student-level differences between means before and after poststratification for select variables for students in private for-profit 4-year institutions: 2017–18**  
—Continued

Variable	Before poststratification adjustment		After poststratification adjustment		
	Respondent mean, nonresponse adjusted <sup>1</sup> (1)	Full-sample mean, base weighted (2)	Respondent mean, after all weight adjustments <sup>2</sup> (3)	Mean (1) - Mean (3)	Mean (2) - Mean (3)
Total office and administrative support employees <sup>5</sup>					
0–2	3.48	3.61	1.17	2.31	2.44
3–7	7.51	12.82	10.19	-2.68	2.63
8–30	44.61	39.65	40.10	4.51	-0.45
31 or more	‡	‡	‡	‡	‡
Unknown	‡	‡	‡	‡	‡

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < 0.05$ .

<sup>1</sup> Mean was calculated using the student base weight, adjusted for nonresponse.

<sup>2</sup> Mean was calculated using the student base weight, adjusted for nonresponse and poststratification.

<sup>3</sup> New England = Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Mideast = 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 Areas = Puerto Rico.

<sup>4</sup> Categories were defined by quartiles.

<sup>5</sup> Categories were defined by quartiles at the institution level.

NOTE: "Student 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, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table K-77. Summary of student-level nonresponse bias analysis and student-level differences between means for undergraduate students within state, overall and by public 2-year and public 4-year institutions: 2017–18**

State	Nonresponse bias statistics <sup>1</sup>								Summary statistics			
	Before nonresponse weight adjustments <sup>2</sup>				After nonresponse weight adjustments <sup>3</sup>				Difference between means for respondents before and after poststratification adjustment <sup>4</sup>	Difference between means for full sample and respondents after poststratification adjustment <sup>5</sup>		
	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size				
	Mean	Median			Mean	Median			Mean	Median	Mean	Median
Alabama												
Overall	9.31	7.34	1.92	0.10	4.93	1.03	#	0.01	4.40	2.76	5.28	3.48
Public 2-year	10.93	8.74	#	0.14	12.27	7.57	5.13	0.11	1.09	0.84	3.69	2.32
Public 4-year	11.90	7.66	20.51	0.19	8.27	5.46	12.82	0.06	6.41	3.06	7.70	3.48
Alaska												
Overall	11.27	5.15	1.96	0.10	5.79	0.56	3.92	#	1.66	1.16	1.90	1.43
Public 2-year	†	†	†	†	†	†	†	†	†	†	†	†
Public 4-year	9.19	4.77	2.00	0.09	5.76	0.97	4.00	0.01	1.52	1.30	2.35	1.85
Arizona												
Overall	6.44	5.74	#	0.07	3.02	0.45	#	#	3.43	2.34	4.07	2.77
Public 2-year	1.07	1.13	#	0.02	1.28	1.11	25.00	0.02	1.59	1.04	1.68	1.49
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Arkansas												
Overall	8.04	4.99	3.85	0.04	5.30	1.18	1.92	#	3.63	2.42	3.78	2.68
Public 2-year	6.31	3.41	4.88	0.03	6.89	3.69	14.63	0.03	4.89	3.10	4.83	3.01
Public 4-year	9.81	5.43	4.88	0.05	7.79	1.71	2.44	0.01	4.92	3.82	4.63	4.23
California												
Overall	14.61	9.09	42.59	0.08	12.19	4.88	31.48	0.02	4.02	2.25	5.52	2.96
Public 2-year	24.59	19.17	47.92	0.07	22.49	14.00	33.33	#	3.81	2.02	8.15	5.92
Public 4-year	11.70	9.05	32.65	0.09	7.70	1.83	14.29	0.01	4.41	2.46	5.47	4.04
Colorado												
Overall	7.19	4.74	3.70	0.05	5.67	1.46	1.85	#	3.36	2.68	3.80	2.81
Public 2-year	9.44	3.65	5.56	0.03	10.84	4.81	5.56	0.07	2.39	1.35	5.23	3.28
Public 4-year	6.03	4.71	2.27	0.05	3.58	2.61	2.27	0.03	1.63	1.00	2.14	2.11

See notes at end of table.

**Table K-77. Summary of student-level nonresponse bias analysis and student-level differences between means for undergraduate students within state, overall and by public 2-year and public 4-year institutions: 2017–18—Continued**

State	Nonresponse bias statistics <sup>1</sup>								Summary statistics			
	Before nonresponse weight adjustments <sup>2</sup>				After nonresponse weight adjustments <sup>3</sup>				Difference between means for respondents before and after poststratification adjustment <sup>4</sup>	Difference between means for full sample and respondents after poststratification adjustment <sup>5</sup>		
	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size			Absolute difference across characteristics	
	Mean	Median			Mean	Median			Mean	Median	Mean	Median
Connecticut												
Overall	11.43	6.61	11.11	0.06	8.91	3.20	14.81	#	2.00	1.20	3.19	2.19
Public 2-year	9.59	3.99	2.86	0.04	10.99	5.91	17.14	0.06	4.76	1.60	6.51	3.42
Public 4-year	6.93	4.01	5.00	‡	4.56	3.87	#	‡	1.25	0.63	3.14	2.35
Delaware												
Overall	11.47	7.59	#	0.06	9.09	3.05	4.08	0.04	3.82	3.19	4.74	3.02
Public 2-year	†	†	†	†	†	†	†	†	†	†	†	†
Public 4-year	1.66	1.87	42.86	0.02	6.43	2.40	50.00	0.04	3.75	3.35	5.07	5.17
District of Columbia												
Overall	22.73	16.53	11.32	0.14	15.08	4.86	5.66	0.02	1.91	1.25	3.47	1.55
Public 2-year	†	†	†	†	†	†	†	†	†	†	†	†
Public 4-year	20.79	4.05	76.19	0.01	19.07	6.66	#	0.02	1.31	1.63	10.44	3.16
Florida												
Overall	11.50	7.40	3.51	0.07	7.69	1.61	5.26	#	1.60	0.66	2.02	1.51
Public 2-year	15.01	5.11	#	0.13	13.36	5.43	#	0.13	2.80	0.99	5.19	5.81
Public 4-year	7.68	4.24	3.92	0.05	5.49	1.40	#	#	1.66	1.00	1.81	1.28
Georgia												
Overall	18.94	15.68	42.11	0.20	6.77	2.69	8.77	0.02	3.37	2.26	3.49	2.35
Public 2-year	9.78	8.06	6.06	0.08	6.08	2.22	6.06	#	5.07	3.59	5.86	4.88
Public 4-year	26.17	10.46	46.30	0.15	8.16	2.25	5.56	0.01	3.09	2.39	3.64	2.47
Hawaii												
Overall	7.02	3.61	#	0.02	3.12	0.06	#	#	1.61	1.03	1.63	0.91
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-77. Summary of student-level nonresponse bias analysis and student-level differences between means for undergraduate students within state, overall and by public 2-year and public 4-year institutions: 2017–18—Continued**

State	Nonresponse bias statistics <sup>1</sup>								Summary statistics			
	Before nonresponse weight adjustments <sup>2</sup>				After nonresponse weight adjustments <sup>3</sup>				Difference between means for respondents before and after poststratification adjustment <sup>4</sup>		Difference between means for full sample and respondents after poststratification adjustment <sup>5</sup>	
	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Absolute difference across characteristics		Absolute difference across characteristics	
	Mean	Median			Mean	Median			Mean	Median	Mean	Median
Idaho												
Overall	29.97	28.85	5.77	0.21	22.20	7.60	3.85	0.09	3.04	1.76	5.25	3.00
Public 2-year	6.92	4.63	14.71	0.02	6.43	#	#	#	1.98	1.40	3.01	2.26
Public 4-year	8.48	7.15	2.38	0.04	10.43	0.31	21.43	#	1.23	0.86	3.55	0.87
Illinois												
Overall	7.29	2.77	9.30	0.02	6.82	0.70	11.63	0.01	3.16	2.92	3.72	3.36
Public 2-year	8.74	1.51	#	0.01	9.56	1.90	26.92	0.03	2.16	1.92	2.43	2.05
Public 4-year	1.60	0.19	5.26	0.01	1.68	0.75	5.26	0.01	3.84	1.01	3.88	1.22
Indiana												
Overall	10.69	5.24	7.55	0.04	9.92	3.44	15.09	0.01	3.91	2.75	3.88	2.42
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	2.41	1.01	7.69	0.01	3.84	1.99	20.51	0.03	2.59	2.35	3.41	2.56
Iowa												
Overall	17.94	11.32	9.62	0.11	12.56	7.71	5.77	#	1.88	1.32	4.51	2.59
Public 2-year	7.95	5.05	2.38	0.05	8.99	5.58	7.14	0.06	0.93	0.49	2.89	2.11
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Kansas												
Overall	9.21	2.63	2.44	0.03	8.28	0.02	2.44	#	1.77	1.38	3.22	3.11
Public 2-year	11.10	2.57	8.33	0.02	12.05	0.46	5.56	#	1.85	1.66	4.50	2.60
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Kentucky												
Overall	8.18	7.85	#	0.08	3.22	1.20	#	#	2.87	2.38	3.27	2.50
Public 2-year	8.89	8.96	4.88	0.11	6.41	1.17	7.32	#	2.62	1.03	3.80	3.19
Public 4-year	3.89	3.00	#	0.05	1.25	#	#	#	3.41	1.22	3.79	2.38

See notes at end of table.

**Table K-77. Summary of student-level nonresponse bias analysis and student-level differences between means for undergraduate students within state, overall and by public 2-year and public 4-year institutions: 2017–18—Continued**

State	Nonresponse bias statistics <sup>1</sup>								Summary statistics			
	Before nonresponse weight adjustments <sup>2</sup>				After nonresponse weight adjustments <sup>3</sup>				Difference between means for respondents before and after poststratification adjustment <sup>4</sup>	Difference between means for full sample and respondents after poststratification adjustment <sup>5</sup>		
	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size			Absolute difference across characteristics	
	Mean	Median			Mean	Median			Mean	Median	Mean	Median
Louisiana												
Overall	8.55	5.80	18.00	0.07	6.23	1.09	2.00	#	2.96	1.05	3.39	2.16
Public 2-year	11.36	8.47	13.51	0.10	10.49	4.88	16.22	0.06	5.24	2.10	7.32	5.87
Public 4-year	6.52	5.68	29.27	0.08	4.07	2.15	4.88	0.04	4.01	1.91	3.77	1.68
Maine												
Overall	16.05	11.69	16.67	0.06	12.58	5.99	14.58	#	2.93	1.74	3.93	1.90
Public 2-year	6.09	0.49	57.89	0.01	8.85	4.44	47.37	0.04	1.91	1.63	2.47	1.78
Public 4-year	18.90	11.48	36.67	0.08	16.21	6.67	36.67	0.07	3.00	2.22	4.06	1.87
Maryland												
Overall	15.87	8.81	21.57	0.04	12.81	2.64	15.69	0.03	3.47	2.99	4.98	3.13
Public 2-year	14.88	4.96	5.88	0.05	10.30	#	5.88	#	2.59	1.25	5.74	2.18
Public 4-year	6.46	4.25	17.39	0.04	2.72	0.20	#	#	3.15	1.44	3.14	1.29
Massachusetts												
Overall	8.29	3.57	1.79	0.03	6.90	0.90	5.36	#	2.08	1.16	2.32	1.51
Public 2-year	10.69	8.08	#	0.10	8.08	3.99	5.26	0.03	2.24	1.31	3.55	1.89
Public 4-year	2.87	1.38	#	0.02	2.49	0.95	9.09	0.01	3.86	3.01	4.02	3.25
Michigan												
Overall	5.68	3.23	17.39	0.03	4.24	0.90	13.04	#	2.77	1.91	3.20	2.88
Public 2-year	9.35	6.47	#	0.09	7.42	3.85	#	0.03	0.97	0.52	2.39	1.49
Public 4-year	7.32	2.77	#	0.04	6.38	1.98	#	0.04	2.63	2.04	2.96	1.70
Minnesota												
Overall	4.24	3.49	27.66	0.03	2.68	0.51	4.26	#	2.90	1.93	3.13	2.33
Public 2-year	2.43	1.84	#	0.03	0.92	0.04	#	#	1.88	1.05	2.15	1.83
Public 4-year	3.21	2.29	4.00	0.04	0.71	0.25	4.00	#	3.10	2.11	3.07	2.37

See notes at end of table.

**Table K-77. Summary of student-level nonresponse bias analysis and student-level differences between means for undergraduate students within state, overall and by public 2-year and public 4-year institutions: 2017–18—Continued**

State	Nonresponse bias statistics <sup>1</sup>								Summary statistics			
	Before nonresponse weight adjustments <sup>2</sup>				After nonresponse weight adjustments <sup>3</sup>				Difference between means for respondents before and after poststratification adjustment <sup>4</sup>		Difference between means for full sample and respondents after poststratification adjustment <sup>5</sup>	
	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Absolute difference across characteristics		Absolute difference across characteristics	
	Mean	Median			Mean	Median			Mean	Median	Mean	Median
Mississippi												
Overall	15.09	10.31	46.15	0.10	10.31	1.22	19.23	#	2.48	2.26	4.06	3.05
Public 2-year	21.38	17.47	53.33	0.17	17.42	7.17	31.11	0.02	0.96	0.57	6.67	2.20
Public 4-year	6.53	3.04	14.63	0.03	5.59	2.07	17.07	0.01	4.92	4.72	4.89	3.47
Missouri												
Overall	7.05	4.17	7.84	0.05	5.79	1.13	7.84	#	2.99	2.80	3.07	2.19
Public 2-year	6.01	3.84	#	0.04	5.46	2.40	14.71	0.02	5.45	4.16	5.04	2.62
Public 4-year	4.84	3.86	#	0.07	2.88	1.53	3.33	0.03	1.38	0.75	1.96	1.47
Montana												
Overall	20.50	14.40	20.00	0.24	14.10	5.41	4.00	0.03	6.31	2.95	9.01	6.16
Public 2-year	31.59	19.16	51.61	0.22	30.84	17.82	54.84	0.14	2.48	1.62	14.91	12.72
Public 4-year	23.06	10.07	2.56	0.34	8.25	5.48	#	0.03	7.93	3.79	9.20	3.58
Nebraska												
Overall	7.05	3.19	14.00	0.03	5.72	1.57	4.00	0.02	3.91	3.01	3.97	3.51
Public 2-year	2.59	0.73	#	0.01	4.34	2.53	43.33	0.04	1.15	0.75	1.94	1.55
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Nevada												
Overall	27.05	15.44	8.62	0.11	27.48	23.44	6.90	0.23	5.53	4.26	8.97	6.49
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	40.93	23.09	9.62	0.24	40.41	25.73	9.62	0.19	3.17	1.73	10.58	6.61
New Hampshire												
Overall	17.51	10.23	28.85	0.10	14.11	2.88	3.85	#	2.02	1.01	3.37	2.99
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	10.60	9.07	50.00	0.11	10.41	9.07	5.38	0.10	3.96	1.48	5.07	4.67

See notes at end of table.

**Table K-77. Summary of student-level nonresponse bias analysis and student-level differences between means for undergraduate students within state, overall and by public 2-year and public 4-year institutions: 2017–18—Continued**

State	Nonresponse bias statistics <sup>1</sup>								Summary statistics			
	Before nonresponse weight adjustments <sup>2</sup>				After nonresponse weight adjustments <sup>3</sup>				Difference between means for respondents before and after poststratification adjustment <sup>4</sup>	Difference between means for full sample and respondents after poststratification adjustment <sup>5</sup>		
	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size			Absolute difference across characteristics	
	Mean	Median			Mean	Median			Mean	Median	Mean	Median
New Jersey												
Overall	12.79	7.36	22.22	0.03	9.32	1.92	11.11	#	2.31	0.83	3.91	2.41
Public 2-year	14.92	9.19	10.00	0.08	16.87	11.97	22.50	0.10	1.05	0.45	5.56	3.74
Public 4-year	14.94	11.81	27.91	0.09	13.38	7.45	20.93	0.06	7.01	3.94	7.69	5.94
New Mexico												
Overall	13.89	7.27	19.64	0.13	8.86	2.50	7.14	0.01	3.51	2.93	3.50	2.13
Public 2-year	13.75	6.69	22.45	0.14	7.63	3.26	2.04	0.03	3.85	2.69	3.88	2.55
Public 4-year	17.46	15.64	16.67	0.19	12.63	6.16	11.90	0.04	9.67	8.90	10.14	7.69
New York												
Overall	16.79	9.48	28.57	0.15	13.95	6.19	19.64	0.07	1.74	0.92	3.56	3.37
Public 2-year	11.06	9.55	25.00	0.10	7.48	5.12	2.27	0.05	1.56	0.79	2.74	1.86
Public 4-year	13.72	9.75	30.00	0.09	7.75	3.78	10.00	0.04	1.78	1.41	2.81	1.39
North Carolina												
Overall	9.01	4.25	11.76	0.03	7.91	1.93	9.80	#	7.20	4.81	7.04	4.38
Public 2-year	9.94	6.18	7.32	0.03	8.89	4.21	4.88	0.02	12.17	5.98	12.81	7.55
Public 4-year	6.73	4.78	#	0.05	5.76	2.96	#	0.03	5.95	4.08	4.97	2.37
North Dakota												
Overall	15.72	10.42	5.66	0.10	14.00	5.93	11.32	#	2.42	1.70	3.39	2.47
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	24.69	17.66	10.87	0.14	16.49	5.94	6.52	0.03	1.55	1.40	4.85	2.94
Ohio												
Overall	15.67	10.28	40.35	0.06	12.02	6.09	21.05	0.01	1.97	1.41	3.39	2.48
Public 2-year	15.66	8.59	2.56	0.05	17.82	10.16	17.95	0.10	1.82	1.05	4.42	1.93
Public 4-year	25.54	21.97	61.54	0.21	19.49	11.73	17.31	0.10	2.90	1.32	5.38	3.86

See notes at end of table.

**Table K-77. Summary of student-level nonresponse bias analysis and student-level differences between means for undergraduate students within state, overall and by public 2-year and public 4-year institutions: 2017–18—Continued**

State	Nonresponse bias statistics <sup>1</sup>								Summary statistics			
	Before nonresponse weight adjustments <sup>2</sup>				After nonresponse weight adjustments <sup>3</sup>				Difference between means for respondents before and after poststratification adjustment <sup>4</sup>		Difference between means for full sample and respondents after poststratification adjustment <sup>5</sup>	
	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Absolute difference across characteristics		Absolute difference across characteristics	
	Mean	Median			Mean	Median			Mean	Median	Mean	Median
Oklahoma												
Overall	5.69	1.86	7.14	0.02	4.77	0.83	4.76	0.02	1.97	1.79	2.26	2.19
Public 2-year	8.17	2.93	#	0.03	7.58	1.77	10.26	#	2.99	1.52	2.90	2.18
Public 4-year	6.13	0.76	#	0.01	6.08	0.87	#	0.01	4.48	1.78	4.55	1.98
Oregon												
Overall	10.46	8.36	11.76	0.07	10.17	4.61	7.84	#	1.76	1.19	2.34	1.72
Public 2-year	7.95	1.78	35.48	0.01	12.24	7.63	54.84	0.09	3.72	2.20	3.32	1.70
Public 4-year	21.57	19.48	5.00	0.23	17.66	12.74	10.00	0.11	3.62	2.53	4.60	3.13
Pennsylvania												
Overall	5.90	3.04	14.29	0.03	4.75	0.95	14.29	#	5.22	3.97	5.09	3.72
Public 2-year	3.77	2.21	11.54	0.04	2.03	0.81	#	0.02	4.26	2.82	4.40	2.96
Public 4-year	9.07	3.66	19.35	0.02	7.71	1.08	12.90	#	7.68	2.99	8.80	6.66
Puerto Rico												
Overall	15.87	10.02	19.57	0.06	12.10	4.19	13.04	#	3.32	2.10	5.25	2.27
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	21.68	11.58	57.69	0.10	21.30	1.38	15.38	0.01	1.46	1.79	10.81	3.01
Rhode Island												
Overall	32.82	29.17	18.00	0.14	28.80	14.05	18.00	0.03	2.77	2.25	9.71	4.96
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
South Carolina												
Overall	13.19	8.12	2.08	0.04	9.97	3.03	6.25	#	5.10	3.76	6.13	4.63
Public 2-year	16.54	4.97	#	0.04	14.92	2.92	2.78	0.04	4.76	2.05	7.68	5.02
Public 4-year	3.42	1.83	#	0.02	3.21	1.51	#	0.03	4.72	1.46	5.26	1.46

See notes at end of table.

**Table K-77. Summary of student-level nonresponse bias analysis and student-level differences between means for undergraduate students within state, overall and by public 2-year and public 4-year institutions: 2017–18—Continued**

State	Nonresponse bias statistics <sup>1</sup>								Summary statistics			
									Difference between means for respondents before and after poststratification adjustment <sup>4</sup>		Difference between means for full sample and respondents after poststratification adjustment <sup>5</sup>	
	Before nonresponse weight adjustments <sup>2</sup>				After nonresponse weight adjustments <sup>3</sup>							
	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Absolute difference across characteristics		Absolute difference across characteristics	
	Mean	Median			Mean	Median			Mean	Median	Mean	Median
South Dakota												
Overall	9.48	6.06	4.00	0.06	8.16	2.41	4.00	#	3.41	2.48	4.44	3.70
Public 2-year	9.03	5.90	29.17	0.03	5.07	#	#	#	9.65	7.06	11.99	11.11
Public 4-year	13.89	10.74	4.35	0.13	9.70	#	6.52	#	1.00	0.96	1.99	1.48
Tennessee												
Overall	14.05	7.58	29.17	0.05	9.87	2.26	4.17	#	1.86	1.93	3.19	2.20
Public 2-year	12.88	10.78	2.50	0.08	11.37	3.98	10.00	0.04	2.52	2.28	4.80	3.21
Public 4-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Texas												
Overall	11.85	8.12	37.74	0.06	8.44	3.68	13.21	0.01	3.62	2.21	4.30	2.77
Public 2-year	11.58	5.69	18.18	0.05	9.70	2.23	15.91	0.01	2.57	1.30	4.41	2.32
Public 4-year	4.24	2.58	#	0.04	2.60	0.22	2.22	#	5.86	2.58	6.09	4.20
Utah												
Overall	5.93	4.43	#	0.04	2.59	0.19	#	#	1.61	1.45	1.54	1.19
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	6.99	4.30	#	0.09	3.39	1.81	2.38	0.02	0.44	0.43	1.10	0.77
Vermont												
Overall	5.70	2.59	#	0.03	5.09	0.41	2.94	#	3.39	2.56	3.28	2.58
Public 2-year	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
Public 4-year	8.44	2.88	#	0.03	7.10	1.52	#	0.01	3.38	3.44	3.27	3.43
Virginia												
Overall	5.89	2.88	24.49	0.02	5.52	0.60	24.49	#	2.54	1.43	2.54	1.83
Public 2-year	10.79	3.43	8.82	0.02	11.84	4.35	11.76	0.04	1.98	1.17	3.96	2.70
Public 4-year	8.26	6.60	#	0.08	6.89	5.04	#	0.05	4.86	3.79	4.29	3.17

See notes at end of table.



**Table K-77. Summary of student-level nonresponse bias analysis and student-level differences between means for undergraduate students within state, overall and by public 2-year and public 4-year institutions: 2017–18—Continued**

State	Nonresponse bias statistics <sup>1</sup>								Summary statistics			
	Before nonresponse weight adjustments <sup>2</sup>				After nonresponse weight adjustments <sup>3</sup>				Difference between means for respondents before and after poststratification adjustment <sup>4</sup>		Difference between means for full sample and respondents after poststratification adjustment <sup>5</sup>	
	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Percent relative bias across characteristics		Percentage of characteristics with significant bias	Median effect size	Absolute difference across characteristics		Absolute difference across characteristics	
	Mean	Median			Mean	Median			Mean	Median	Mean	Median
Washington												
Overall	10.37	6.29	16.67	0.04	7.32	3.45	7.41	#	1.48	0.90	2.04	1.19
Public 2-year	13.99	8.32	7.69	0.10	11.21	4.63	11.54	0.04	20.61	16.22	21.28	19.28
Public 4-year	11.60	8.62	15.69	0.07	7.12	2.46	1.96	0.01	1.71	1.12	1.73	1.11
West Virginia												
Overall	8.56	5.89	21.15	0.06	5.23	1.46	#	0.01	3.25	3.08	3.45	2.74
Public 2-year	9.13	5.74	#	0.14	6.95	5.74	#	0.08	3.93	2.20	4.26	4.12
Public 4-year	12.04	5.35	15.38	0.03	11.99	4.02	10.26	0.02	0.98	0.90	3.83	1.36
Wisconsin												
Overall	12.10	4.82	20.93	0.06	10.63	2.21	18.60	0.02	1.75	0.97	3.36	2.49
Public 2-year	8.75	2.75	#	0.02	9.84	4.02	32.14	0.04	2.68	1.63	3.74	3.53
Public 4-year	6.77	2.04	3.23	0.02	7.37	1.75	25.81	0.01	1.58	1.34	1.94	1.24
Wyoming												
Overall	19.31	18.67	18.75	0.07	14.89	1.30	#	#	2.44	1.63	5.41	2.13
Public 2-year	32.17	25.96	43.18	0.11	27.67	3.70	31.82	0.01	1.48	1.59	9.11	3.73
Public 4-year	0.38	0.09	54.55	#	0.55	0.61	#	#	2.93	0.56	3.21	0.09

† Not applicable.

# Rounds to zero.

‡ Reporting standards not met (fewer than five characteristics had at least 30 nonrespondents).

<sup>1</sup> Relative bias and effect size are calculated using the weighted differences between respondent and full-sample means. Relative bias was calculated as 100 times the ratio of estimated bias to the weighted full-sample mean. Effect size was calculated as the square root of the sum over categories of the squared differences over full-sample means.<sup>2</sup> Respondent and full-sample means are weighted using the student base weight.<sup>3</sup> Full-sample means are weighted using the student base weight, and the respondent means are weighted using the student base weight adjusted for nonresponse.<sup>4</sup> 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.<sup>5</sup> 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. "Student base weight" refers to the institution sampling weight. For the purposes of this table, Puerto Rico and the District of Columbia are referred to as "states."

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study-Administrative Collection (NPSAS:18-AC).

**Table K-78. Summary of undergraduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
AGE_HSGRADYY	Age at high school graduation												
Before imputation													
Mean percent relative bias across characteristics		0.70	13.50	2.19	2.05	2.09	1.36	6.95	3.94	2.98	7.10	9.50	4.43
Median percent relative bias across characteristics		0.20	5.97	1.11	1.16	1.49	0.90	3.39	2.50	1.51	6.20	7.41	2.40
Percentage of characteristics with significant bias		29.10	15.56	48.19	16.25	37.04	44.71	0.00	28.92	33.73	18.18	20.55	9.33
Median effect size		0.11	0.29	0.07	0.10	0.11	0.11	0.28	0.23	0.16	0.32	0.41	0.16
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.17	4.62	0.08	0.01	0.15	0.13*	0.38	0.34	0.54	0.44	0.87	1.15
Effect size for difference		0.01	0.16	0.01	#	0.02	0.02	0.02	0.02	0.04	0.02	0.06	0.05
AGE_PSECTYR	Age first enrolled in postsecondary education												
Before imputation													
Mean percent relative bias across characteristics		0.51	8.39	1.97	1.85	1.64	1.02	6.84	1.34	1.13	7.76	6.79	1.91
Median percent relative bias across characteristics		0.12	3.84	0.88	0.83	0.69	0.62	5.16	0.80	0.67	5.79	4.32	1.03
Percentage of characteristics with significant bias		27.82	5.77	52.38	20.73	32.94	44.19	9.68	13.10	19.28	23.53	21.33	5.06
Median effect size		0.06	0.11	0.06	0.10	0.10	0.07	0.35	0.07	0.05	0.38	0.34	0.09
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.51*	4.39	0.90*	0.50	0.59*	0.10	5.49	0.28	0.26	2.95	0.11	1.17*
Effect size for difference		0.02	0.12	0.02	0.01	0.02	#	0.16	0.01	0.01	0.09	#	0.03

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
DEPANY	Dependents: Has dependents												
Before imputation													
Mean percent relative bias across characteristics		1.12	11.51	3.55	3.26	2.44	2.45	7.59	3.09	3.89	8.14	6.43	2.76
Median percent relative bias across characteristics		0.14	7.70	1.72	1.96	1.66	1.11	5.44	1.68	2.04	5.61	4.18	1.47
Percentage of characteristics with significant bias		36.59	24.53	61.45	39.02	50.59	52.33	22.22	35.71	50.00	32.81	20.55	19.23
Median effect size		0.21	0.38	0.22	0.18	0.15	0.14	0.34	0.18	0.23	0.41	0.31	0.16
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		1.51*	8.59*	1.87*	0.91	0.34	0.17	1.76	2.47*	2.33*	1.34	2.74*	2.90
Effect size for difference		0.02	0.09	0.02	0.01	#	#	0.02	0.03	0.04	0.01	0.03	0.03
DEPCHILD	Dependents: Has dependent children												
Before imputation													
Mean percent relative bias across characteristics		1.12	11.51	3.55	3.26	2.43	2.45	7.59	3.09	3.89	8.14	6.43	2.76
Median percent relative bias across characteristics		.14	7.70	1.74	1.96	1.66	1.11	5.44	1.68	2.04	5.61	4.18	1.45
Percentage of characteristics with significant bias		36.59	24.53	61.45	39.02	50.59	52.33	22.22	35.71	50.00	32.81	20.55	19.23
Median effect size		0.21	0.38	0.22	0.18	0.15	0.14	0.34	0.18	0.23	0.41	0.31	0.16
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		1.46*	7.78*	1.80*	0.98	0.31	0.15	1.47	2.51*	2.13*	1.16	2.50*	2.69
Effect size for difference		0.02	0.08	0.02	0.01	#	#	0.02	0.04	0.03	0.01	0.03	0.03

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
DEPCOL	Independent students: Number of dependents in college												
Before imputation													
Mean percent relative bias across characteristics		2.75	20.38	8.51	8.05	8.23	7.41	16.85	8.58	10.14	14.11	10.62	4.90
Median percent relative bias across characteristics		0.39	12.02	3.33	4.64	5.77	3.83	12.53	5.68	6.26	10.87	7.87	2.42
Percentage of characteristics with significant bias		28.98	38.78	60.98	39.74	50.62	50.59	29.17	38.55	50.00	34.92	27.40	24.66
Median effect size		0.37	0.72	0.49	0.40	0.42	0.40	0.79	0.43	0.52	0.67	0.54	0.27
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		12.49*	32.49	20.05*	2.35	1.56	12.07*	32.43*	11.62*	3.68	0.30	15.92	6.03
Effect size for difference		0.04	0.07	0.07	0.01	0.01	0.04	0.08	0.04	0.01	#	0.03	0.02
DEPNUM	Dependents: Has any dependents (number)												
Before imputation													
Mean percent relative bias across characteristics		1.12	11.51	3.55	3.26	2.43	2.45	7.59	3.09	3.89	8.14	6.43	2.77
Median percent relative bias across characteristics		0.14	7.70	1.74	1.96	1.66	1.10	5.44	1.68	2.04	5.61	4.18	1.46
Percentage of characteristics with significant bias		36.59	24.53	61.45	39.02	50.59	52.33	22.22	35.71	50.00	32.81	20.55	19.23
Median effect size		0.21	0.38	0.22	0.18	0.15	0.14	0.34	0.18	0.23	0.41	0.31	0.16
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		3.77*	13.93*	3.09*	1.67	1.11	2.23	3.15	6.54*	8.12*	1.15	4.45*	2.22
Effect size for difference		0.02	0.08	0.02	0.01	#	0.01	0.02	0.03	0.03	0.01	0.03	0.02

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
DEPOTHER	Dependents: Has dependent(s) other than children												
Before imputation													
Mean percent relative bias across characteristics		1.12	11.51	3.55	3.26	2.43	2.45	7.59	3.09	3.89	8.14	6.43	2.76
Median percent relative bias across characteristics		0.14	7.70	1.74	1.96	1.66	1.11	5.44	1.68	2.04	5.61	4.18	1.45
Percentage of characteristics with significant bias		36.59	24.53	61.45	39.02	50.59	52.33	22.22	35.71	50.00	32.81	20.55	19.23
Median effect size		0.21	0.38	0.22	0.18	0.15	0.14	0.34	0.18	0.23	0.41	0.31	0.16
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.09	0.79	#	0.24	0.03	0.12	0.28	0.07	0.60*	0.12	0.41*	0.36
Effect size for difference		#	‡	#	0.01	#	#	‡	#	0.02	‡	‡	0.01
GPA	Estimated grade point average												
Before imputation													
Mean percent relative bias across characteristics		0.89	16.02	2.57	2.46	2.74	1.43	20.62	3.27	1.59	12.17	8.63	3.07
Median percent relative bias across characteristics		0.28	7.05	1.16	1.00	1.53	0.98	16.50	1.94	0.92	10.39	5.12	1.54
Percentage of characteristics with significant bias		28.45	51.35	37.04	13.58	25.58	30.23	39.66	20.24	17.86	16.39	27.14	8.97
Median effect size		0.13	0.63	0.11	0.15	0.16	0.10	1.01	0.22	0.11	0.44	0.54	0.13
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.56*	16.65*	0.45	0.01	1.05*	0.10	17.59	0.37	0.55	0.21	0.50	0.27
Effect size for difference		0.02	0.54	0.01	#	0.04	#	0.64	0.02	0.03	0.01	0.02	0.01

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
HCHONORS	Number of honors subjects												
Before imputation													
Mean percent relative bias across characteristics		1.68	13.25	3.21	3.52	2.83	2.29	10.87	4.56	3.00	9.92	10.05	5.98
Median percent relative bias across characteristics		0.29	5.79	1.42	1.72	1.30	1.58	10.58	2.85	1.81	7.27	6.58	3.44
Percentage of characteristics with significant bias		45.12	12.96	39.76	24.69	36.14	57.14	10.94	51.22	56.63	17.65	35.14	18.18
Median effect size		0.25	0.24	0.13	0.15	0.18	0.14	0.51	0.26	0.20	0.53	0.52	0.32
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		7.78*	22.01	2.76	6.44	4.89*	3.51*	16.01	3.43	6.33*	14.87	31.50*	4.08
Effect size for difference		0.09	0.19	0.03	0.07	0.06	0.05	0.18	0.04	0.08	0.14	0.27	0.04
HCMATHHI	Highest level of math completed or planned												
Before imputation													
Mean percent relative bias across characteristics		1.62	11.68	3.41	3.52	2.94	2.17	9.42	4.50	2.80	11.67	11.59	6.02
Median percent relative bias across characteristics		0.31	4.75	1.44	1.34	1.93	1.44	9.15	2.85	1.45	9.12	8.05	3.19
Percentage of characteristics with significant bias		46.12	15.09	50.60	23.46	37.35	50.00	4.62	52.44	50.60	22.39	42.25	18.42
Median effect size		0.25	0.18	0.14	0.12	0.19	0.12	0.47	0.28	0.19	0.59	0.49	0.27
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		1.89*	2.09	0.72*	2.31*	1.13*	0.58*	1.00	1.04*	1.72*	3.21	7.02*	0.99
Effect size for difference		0.09	0.07	0.03	0.10	0.05	0.03	0.05	0.05	0.09	0.13	0.29	0.04

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
HCSCINUM	Number of science courses taken												
Before imputation													
Mean percent relative bias across characteristics		1.62	12.12	3.40	3.49	2.90	2.12	9.34	4.47	2.79	11.49	11.58	6.00
Median percent relative bias across characteristics		0.31	5.37	1.39	1.38	1.87	1.31	8.55	2.90	1.42	8.90	8.47	2.96
Percentage of characteristics with significant bias		45.71	15.09	50.60	25.93	37.35	50.00	4.62	52.44	51.81	22.06	39.44	17.11
Median effect size		0.24	0.19	0.14	0.12	0.19	0.11	0.45	0.28	0.19	0.57	0.53	0.28
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		2.61*	1.61	1.95*	0.05	1.88*	0.91*	0.64	1.81*	1.90*	1.63	2.73	2.85
Effect size for difference		0.10	0.05	0.07	#	0.07	0.04	0.02	0.07	0.09	0.06	0.09	0.08
HCTKBIOL	Took or planned to take biology												
Before imputation													
Mean percent relative bias across characteristics		1.58	12.49	3.39	3.46	2.90	2.06	9.48	4.42	2.78	11.33	11.21	5.94
Median percent relative bias across characteristics		0.32	5.13	1.35	1.34	1.80	1.19	8.12	3.01	1.40	9.49	8.17	3.27
Percentage of characteristics with significant bias		46.12	13.46	50.60	23.46	40.96	50.00	4.69	54.88	50.60	20.90	41.10	18.42
Median effect size		0.24	0.23	0.14	0.12	0.19	0.11	0.43	0.28	0.19	0.59	0.52	0.30
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		1.10*	1.62	1.20*	0.53	1.00	0.89*	0.60	1.58*	0.90*	0.84	1.00	1.88
Effect size for difference		0.04	‡	0.04	0.02	0.03	0.03	‡	0.05	0.03	0.04	0.04	0.05

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
HCTKCHEM	Took or planned to take chemistry												
Before imputation													
Mean percent relative bias across characteristics		1.59	12.25	3.38	3.47	2.89	2.07	9.34	4.43	2.78	11.26	11.15	5.97
Median percent relative bias across characteristics		0.31	5.52	1.36	1.33	1.80	1.21	8.28	2.99	1.36	9.30	8.36	3.33
Percentage of characteristics with significant bias		45.71	16.98	50.60	23.46	40.96	48.81	4.62	54.88	51.81	20.59	36.11	18.42
Median effect size		0.24	0.19	0.14	0.12	0.19	0.11	0.45	0.28	0.19	0.58	0.51	0.30
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		3.99*	0.23	3.27*	0.81	2.54*	1.28*	5.26	1.85*	1.95*	1.69	0.86	2.98
Effect size for difference		0.07	#	0.05	0.01	0.04	0.03	0.07	0.03	0.04	0.02	0.01	0.04
HCTKPHYS	Took or planned to take physics												
Before imputation													
Mean percent relative bias across characteristics		1.61	12.15	3.39	3.48	2.90	2.11	9.34	4.47	2.79	11.49	11.68	6.01
Median percent relative bias across characteristics		0.32	5.29	1.35	1.33	1.81	1.28	8.61	2.88	1.42	8.93	8.26	3.01
Percentage of characteristics with significant bias		45.31	15.09	50.60	25.93	37.35	50.00	4.62	52.44	51.81	22.06	43.66	17.11
Median effect size		0.24	0.19	0.14	0.12	0.19	0.11	0.45	0.28	0.19	0.58	0.54	0.28
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		8.36*	0.65	5.76*	0.79	6.62*	2.86*	1.04	6.59*	7.38*	8.36	8.70	14.68
Effect size for difference		0.08	0.01	0.06	0.01	0.07	0.03	0.01	0.07	0.08	0.08	0.09	0.15

See notes at end of table.



**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
HCYSENGL	Years completed or planned English												
Before imputation													
Mean percent relative bias across characteristics		1.60	11.98	3.41	3.38	2.95	2.11	9.45	4.49	2.83	11.34	11.01	5.96
Median percent relative bias across characteristics		0.31	5.69	1.63	1.27	1.75	1.21	7.70	2.79	1.58	9.52	7.46	3.38
Percentage of characteristics with significant bias		45.12	13.73	49.40	23.46	46.99	52.38	4.62	56.10	50.60	20.90	34.25	18.18
Median effect size		0.24	0.28	0.14	0.12	0.19	0.12	0.43	0.28	0.19	0.58	0.54	0.31
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.19	7.31*	0.04	1.29*	0.51	1.02*	2.14	0.27	0.31	5.18*	6.28*	1.17
Effect size for difference		0.01	0.21	#	0.06	0.03	0.06	0.11	0.01	0.02	0.24	0.31	0.05
HCYSLANG	Years completed or planned foreign languages												
Before imputation													
Mean percent relative bias across characteristics		1.62	12.06	3.25	3.33	3.00	2.24	10.36	4.52	3.18	11.14	10.32	5.81
Median percent relative bias across characteristics		0.23	5.71	1.58	1.23	1.70	1.34	9.72	3.42	1.90	8.04	7.23	2.83
Percentage of characteristics with significant bias		43.50	14.81	43.37	24.69	37.35	51.19	11.11	51.22	59.04	18.84	34.25	15.58
Median effect size		0.28	0.37	0.13	0.16	0.16	0.16	0.53	0.28	0.20	0.58	0.52	0.33
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		2.96*	0.51	1.46	2.05	1.39	0.04	15.90*	2.95*	4.17*	14.76*	14.31	9.79*
Effect size for difference		0.06	0.01	0.03	0.04	0.03	#	0.38	0.07	0.11	0.31	0.26	0.19

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
HCYSMATH	Years completed or planned math												
Before imputation													
Mean percent relative bias across characteristics		1.60	11.97	3.40	3.37	2.94	2.10	9.59	4.50	2.83	11.35	10.91	6.01
Median percent relative bias across characteristics		0.31	5.63	1.54	1.23	1.69	1.20	7.79	2.79	1.61	9.52	7.47	3.26
Percentage of characteristics with significant bias		44.72	13.73	50.60	23.46	43.37	52.38	4.62	56.10	51.81	20.59	34.25	16.88
Median effect size		0.24	0.28	0.14	0.12	0.19	0.12	0.43	0.28	0.19	0.59	0.53	0.30
After imputation													
Difference between pre- and postimputation means <sup>1=</sup>		0.08	3.52	0.61	1.60*	0.97*	0.57*	2.21	0.07	0.47*	5.99*	7.02*	2.14
Effect size for difference		#	0.10	0.03	0.08	0.05	0.03	0.12	#	0.03	0.28	0.34	0.09
HCYSSCIE	Years completed or planned science												
Before imputation													
Mean percent relative bias across characteristics		1.61	12.08	3.42	3.35	2.98	2.13	9.50	4.51	2.85	11.39	11.03	5.84
Median percent relative bias across characteristics		0.34	4.72	1.57	1.34	1.82	1.20	8.16	2.85	1.55	9.48	7.63	3.40
Percentage of characteristics with significant bias		44.31	15.69	49.40	22.22	43.37	53.57	4.62	56.10	51.81	20.90	34.25	16.88
Median effect size		0.24	0.29	0.14	0.12	0.19	0.12	0.42	0.29	0.19	0.58	0.53	0.30
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.10	12.55*	0.56	2.52*	1.41*	0.78*	4.52*	0.30	0.52*	6.77*	6.67*	3.45*
Effect size for difference		#	0.31	0.02	0.10	0.06	0.04	0.18	0.01	0.02	0.27	0.28	0.13

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
HCYSSOCI	Years completed or planned social studies												
Before imputation													
Mean percent relative bias across characteristics		2.08	19.13	4.21	4.21	4.31	3.34	14.10	5.46	3.66	10.41	12.29	6.52
Median percent relative bias across characteristics		0.43	20.89	2.20	2.15	2.89	2.66	10.36	4.03	2.45	7.70	8.72	4.77
Percentage of characteristics with significant bias		60.16	13.33	57.83	26.25	38.55	66.67	24.19	53.66	57.32	17.46	26.09	12.82
Median effect size		0.35	0.79	0.22	0.20	0.24	0.21	0.64	0.29	0.23	0.51	0.63	0.35
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		3.76*	63.12*	3.27*	0.85	2.94*	2.27*	1.07	3.72*	2.75*	1.93	2.66	5.39
Effect size for difference		0.14	1.20	0.11	0.03	0.11	0.10	0.04	0.13	0.12	0.07	0.10	0.22
HISPANIC	Race: Hispanic or Latino origin												
Before imputation													
Mean percent relative bias across characteristics		0.60	7.84	1.98	1.85	1.52	1.13	11.74	1.47	1.44	4.93	7.13	2.33
Median percent relative bias across characteristics		0.13	4.68	0.92	0.86	0.77	0.66	11.07	0.81	0.86	3.06	5.48	1.07
Percentage of characteristics with significant bias		33.61	4.88	50.00	17.07	28.24	47.06	10.64	21.43	31.71	6.15	28.17	6.85
Median effect size		0.08	0.12	0.06	0.09	0.09	0.07	0.39	0.07	0.09	0.18	0.32	0.09
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.43*	‡	0.93*	0.37	1.16*	0.20	27.97	0.21	0.99*	0.23	0.04	1.22
Effect size for difference		0.01	‡	0.01	#	0.02	#	0.30	#	0.01	#	‡	0.01

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
HOMELESS	Homeless or at risk of homelessness												
Before imputation													
Mean percent relative bias across characteristics		1.62	19.39	4.85	4.85	3.47	3.29	12.86	4.50	5.05	12.36	9.51	7.56
Median percent relative bias across characteristics		0.24	15.27	1.97	2.40	1.85	1.38	11.65	2.52	2.05	10.19	6.30	4.53
Percentage of characteristics with significant bias		38.27	33.33	57.50	32.47	51.85	53.66	19.23	41.98	56.41	27.87	22.54	9.86
Median effect size		0.22	0.69	0.28	0.30	0.20	0.18	0.64	0.24	0.25	0.58	0.48	0.40
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.06	0.27	0.03	#	0.07	0.10	0.02	0.04	0.02	0.08	1.24	0.05
Effect size for difference		#	‡	#	‡	‡	0.01	‡	‡	‡	‡	‡	‡
HSDEG	High school degree type												
Before imputation													
Mean percent relative bias across characteristics		0.75	8.82	2.48	1.92	2.01	1.20	6.91	2.64	2.71	6.31	6.41	2.60
Median percent relative bias across characteristics		0.15	4.63	0.96	0.64	1.35	0.75	5.34	1.56	1.28	5.50	4.43	1.37
Percentage of characteristics with significant bias		34.02	7.84	57.83	16.25	42.86	44.19	7.50	42.86	45.12	16.42	14.86	5.26
Median effect size		0.11	0.18	0.12	0.09	0.12	0.09	0.21	0.15	0.16	0.31	0.28	0.13
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		1.30*	6.24*	0.78*	0.31	1.86*	2.00*	1.73	1.59*	3.82*	0.29	0.19	0.44
Effect size for difference		0.04	‡	‡	‡	‡	0.05	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
HSGPA	Grade point average in high school												
Before imputation													
Mean percent relative bias across characteristics		1.57	12.55	3.29	3.51	2.78	2.06	10.07	4.35	2.79	11.22	10.49	5.79
Median percent relative bias across characteristics		0.32	7.75	1.48	1.20	1.68	1.12	8.93	2.89	1.50	9.06	7.57	3.35
Percentage of characteristics with significant bias		44.72	20.00	46.99	23.46	40.96	50.00	4.76	51.22	46.99	20.90	37.33	15.58
Median effect size		0.24	0.28	0.13	0.14	0.18	0.12	0.44	0.26	0.19	0.58	0.53	0.29
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		6.99*	25.59	2.30	7.64*	1.88	2.47*	23.94*	4.77*	5.99*	31.01*	25.53*	20.37*
Effect size for difference		0.08	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
LOCALRES	Residence while enrolled												
Before imputation													
Mean percent relative bias across characteristics		1.29	13.60	3.62	3.48	2.36	2.00	9.11	2.50	2.15	7.22	6.46	6.33
Median percent relative bias across characteristics		0.24	9.44	1.65	1.91	1.25	1.12	5.25	1.77	1.28	6.40	4.44	5.91
Percentage of characteristics with significant bias		43.03	29.63	52.38	32.10	33.72	46.51	18.18	32.14	32.53	21.54	13.89	32.43
Median effect size		0.22	0.58	0.27	0.21	0.15	0.14	0.30	0.14	0.14	0.33	0.33	0.27
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		14.55*	22.12*	12.35*	13.69*	9.66*	7.20*	41.55	7.19*	3.01*	3.25	16.50*	33.06*
Effect size for difference		‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
MONTH_PSECTYM	Month first enrolled in postsecondary education												
Before imputation													
Mean percent relative bias across characteristics		0.51	8.39	1.97	1.85	1.64	1.02	6.84	1.34	1.13	7.76	6.79	1.91
Median percent relative bias across characteristics		0.12	3.84	0.88	0.83	0.69	0.62	5.16	0.80	0.67	5.79	4.32	1.03
Percentage of characteristics with significant bias		27.82	5.77	52.38	20.73	32.94	44.19	9.68	13.10	19.28	23.53	21.33	5.06
Median effect size		0.06	0.11	0.06	0.10	0.10	0.07	0.35	0.07	0.05	0.38	0.34	0.09
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.11	0.20	0.41*	0.02	0.54	0.09	7.19	0.20	0.04	2.74	1.35	0.59
Effect size for difference		#	#	0.01	#	0.01	#	0.14	0.01	#	0.05	0.03	0.01
MULTIRACIAL	Student's multiracial status												
Before imputation													
Mean percent relative bias across characteristics		0.75	9.92	2.44	2.32	1.86	1.49	6.19	1.78	1.46	5.19	7.57	3.18
Median percent relative bias across characteristics		0.20	5.03	1.33	1.00	0.86	0.85	3.20	1.23	0.63	3.24	4.87	2.03
Percentage of characteristics with significant bias		36.73	8.89	56.10	22.50	32.14	46.43	7.27	27.71	36.14	13.64	30.14	11.69
Median effect size		0.10	0.20	0.09	0.09	0.10	0.09	0.21	0.07	0.10	0.24	0.32	0.10
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.16	0.18	0.59*	0.08	0.37	0.14	3.85*	0.07	0.22	0.19	4.30	2.20*
Effect size for difference		#	‡	0.01	#	0.01	#	‡	#	#	‡	0.10	0.07

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
ORPHAN	Orphan, ward of court, emancipated minor, or in legal guardianship												
Before imputation													
Mean percent relative bias across characteristics		1.43	18.50	4.47	4.26	2.99	2.79	11.31	4.17	4.63	11.06	8.96	7.29
Median percent relative bias across characteristics		0.23	12.65	1.97	2.14	1.70	1.33	9.79	2.42	2.02	9.00	6.15	4.46
Percentage of characteristics with significant bias		38.68	39.58	58.75	32.47	46.91	53.66	18.87	40.74	54.43	22.22	18.31	10.00
Median effect size		0.18	0.46	0.23	0.24	0.20	0.16	0.51	0.23	0.24	0.56	0.45	0.37
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.10	2.09*	0.07	0.19	0.01	0.09	0.66*	0.23	0.28	0.09	0.54	1.03
Effect size for difference		#	‡	#	‡	‡	#	‡	0.01	0.01	‡	‡	‡
PARED1B	Parent 1: Highest education level												
Before imputation													
Mean percent relative bias across characteristics		1.16	11.68	3.57	3.14	2.52	2.40	8.08	3.11	3.85	8.36	6.82	2.78
Median percent relative bias across characteristics		0.16	7.93	1.69	1.78	1.49	1.15	5.50	1.64	1.86	6.96	4.80	1.77
Percentage of characteristics with significant bias		38.21	24.53	60.24	37.80	51.76	52.33	23.73	36.90	48.19	26.87	17.57	19.23
Median effect size		0.20	0.41	0.23	0.16	0.15	0.14	0.42	0.18	0.22	0.43	0.33	0.17
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		2.14*	14.21*	3.36*	5.60*	1.94	2.49*	6.31	1.34	2.57*	0.65	1.58	0.72
Effect size for difference		0.02	‡	0.04	0.06	0.02	0.03	‡	0.01	0.03	0.01	0.03	0.01

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
PARED1_AC	Parent 1 highest education level												
Before imputation													
Mean percent relative bias across characteristics		1.16	11.68	3.57	3.14	2.52	2.40	8.08	3.11	3.85	8.36	6.82	2.78
Median percent relative bias across characteristics		0.16	7.93	1.69	1.78	1.49	1.15	5.50	1.64	1.86	6.96	4.80	1.77
Percentage of characteristics with significant bias		38.21	24.53	60.24	37.80	51.76	52.33	23.73	36.90	48.19	26.87	17.57	19.23
Median effect size		0.20	0.41	0.23	0.16	0.15	0.14	0.42	0.18	0.22	0.43	0.33	0.17
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.57*	1.90*	1.05*	1.44*	0.52	0.63*	2.01*	0.31	0.53*	0.18	0.40	0.12
Effect size for difference		0.02	0.08	0.04	0.05	0.02	0.03	0.07	0.01	0.02	0.01	0.01	#
PARED2B	Parent 2: Highest education level												
Before imputation													
Mean percent relative bias across characteristics		1.14	11.49	3.45	2.94	2.41	2.18	7.62	2.96	3.69	8.44	6.84	2.68
Median percent relative bias across characteristics		0.15	8.69	1.61	1.80	1.39	1.01	5.28	1.39	1.81	6.84	4.85	1.42
Percentage of characteristics with significant bias		39.84	23.64	59.52	34.15	44.19	44.19	21.31	33.33	48.19	25.37	17.57	17.95
Median effect size		0.16	0.45	0.24	0.16	0.15	0.12	0.37	0.14	0.20	0.43	0.32	0.15
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		1.61*	5.07*	3.53*	4.53*	0.21	2.32*	1.58	0.99	1.69*	2.93	2.77	0.65
Effect size for difference		0.02	0.09	0.04	0.05	#	0.02	‡	0.01	0.02	0.03	0.03	0.01

See notes at end of table.



**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
PARED2_AC	Parent 2 highest education level												
Before imputation													
Mean percent relative bias across characteristics		1.14	11.49	3.45	2.94	2.41	2.18	7.62	2.96	3.69	8.44	6.84	2.68
Median percent relative bias across characteristics		0.15	8.69	1.61	1.80	1.39	1.01	5.28	1.39	1.81	6.84	4.85	1.42
Percentage of characteristics with significant bias		39.84	23.64	59.52	34.15	44.19	44.19	21.31	33.33	48.19	25.37	17.57	17.95
Median effect size		0.16	0.45	0.24	0.16	0.15	0.12	0.37	0.14	0.20	0.43	0.32	0.15
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.40*	2.00	1.07*	1.46*	#	0.52*	0.06	0.03	0.44	0.45	0.59	0.20
Effect size for difference		0.01	0.07	0.04	0.05	#	0.02	#	#	0.02	0.02	0.02	0.01
Pfamnum	Dependent students: Family size												
Before imputation													
Mean percent relative bias across characteristics		1.57	20.16	4.94	4.74	3.20	2.99	12.68	4.35	4.86	12.05	9.56	8.03
Median percent relative bias across characteristics		0.25	13.61	2.16	2.34	1.73	1.38	9.99	2.51	2.10	10.28	7.04	4.15
Percentage of characteristics with significant bias		37.86	41.67	59.49	33.77	45.68	55.42	23.91	41.98	53.85	22.58	18.31	11.59
Median effect size		0.20	0.58	0.26	0.30	0.21	0.17	0.51	0.24	0.25	0.59	0.48	0.40
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.87*	3.89	0.55*	0.92	0.09	1.08*	0.38	0.70	0.91*	0.17	0.32	2.49*
Effect size for difference		0.03	0.10	0.02	0.03	#	0.03	0.01	0.02	0.03	#	0.01	0.07

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
PINCOL	Dependent students: Number of family members in college												
Before imputation													
Mean percent relative bias across characteristics		1.95	22.09	6.13	6.29	4.31	3.96	15.29	4.93	5.71	13.62	10.20	8.57
Median percent relative bias across characteristics		0.24	14.83	2.25	3.22	2.31	1.41	13.31	2.52	2.21	11.32	7.99	5.93
Percentage of characteristics with significant bias		39.51	36.17	59.49	39.47	50.62	51.81	22.92	37.50	51.90	25.81	25.71	15.49
Median effect size		0.33	0.95	0.39	0.37	0.24	0.19	0.70	0.24	0.32	0.61	0.50	0.43
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.16	16.99*	0.05	0.52	0.86*	0.27	1.79*	1.01*	0.17	1.17	0.06	1.36
Effect size for difference		#	0.41	#	0.01	0.02	0.01	0.04	0.02	#	0.03	#	0.03
PMARITAL	Dependent students: Parents' marital status												
Before imputation													
Mean percent relative bias across characteristics		1.46	19.64	4.63	4.36	3.02	2.69	12.63	4.21	4.62	11.99	9.64	7.90
Median percent relative bias across characteristics		0.25	13.31	2.19	2.03	1.63	1.24	10.06	2.45	2.06	10.33	7.56	4.30
Percentage of characteristics with significant bias		38.52	42.55	58.75	32.47	46.91	52.38	23.91	41.98	55.70	22.58	22.54	13.04
Median effect size		0.19	0.51	0.24	0.24	0.19	0.16	0.50	0.23	0.25	0.59	0.47	0.40
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		11.02*	11.72	13.66*	16.40*	6.33*	9.70*	19.44*	9.93*	9.12*	3.25*	8.96*	10.58*
Effect size for difference		0.12	‡	0.14	‡	‡	0.11	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
PROGSTAT2	Completed degree program in 2017–18												
Before imputation													
Mean percent relative bias across characteristics		0.80	12.32	2.84	3.09	2.04	1.32	7.06	2.35	2.12	8.77	6.42	2.09
Median percent relative bias across characteristics		0.15	9.16	1.31	1.67	1.32	0.86	4.44	1.36	1.15	7.46	5.16	1.30
Percentage of characteristics with significant bias		31.58	19.61	54.12	32.93	38.82	43.02	10.17	27.38	41.67	30.88	13.33	5.06
Median effect size		0.13	0.34	0.18	0.14	0.11	0.09	0.24	0.14	0.13	0.43	0.34	0.12
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		1.90*	21.26*	4.36*	1.59	0.16	0.62	17.10	0.94	#	10.12	10.11*	1.36
Effect size for difference		0.02	0.21	0.06	0.02	#	0.01	0.17	0.01	#	0.10	0.10	0.02
RAASIAN	Race: Asian												
Before imputation													
Mean percent relative bias across characteristics		0.75	9.92	2.44	2.32	1.87	1.50	6.19	1.77	1.45	5.17	7.50	3.21
Median percent relative bias across characteristics		0.19	5.09	1.32	1.03	0.95	0.85	3.20	1.21	0.62	3.34	4.86	2.07
Percentage of characteristics with significant bias		37.14	8.89	56.10	22.50	33.33	45.24	7.27	26.51	34.94	13.64	29.73	12.99
Median effect size		0.10	0.20	0.09	0.09	0.10	0.09	0.21	0.07	0.10	0.24	0.32	0.10
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.14	0.20	0.66	0.44	0.57	0.31	0.55	0.59	1.41*	0.32	1.71	2.67
Effect size for difference		#	‡	0.01	0.01	0.01	0.01	‡	0.01	0.02	‡	0.04	0.06

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
RABBLACK	Race: Black or African American												
Before imputation													
Mean percent relative bias across characteristics		0.75	9.92	2.44	2.32	1.87	1.50	6.19	1.77	1.45	5.17	7.50	3.21
Median percent relative bias across characteristics		0.19	5.09	1.32	1.03	0.95	0.85	3.20	1.21	0.62	3.34	4.86	2.07
Percentage of characteristics with significant bias		37.14	8.89	56.10	22.50	33.33	45.24	7.27	26.51	34.94	13.64	29.73	12.99
Median effect size		0.10	0.20	0.09	0.09	0.10	0.09	0.21	0.07	0.10	0.24	0.32	0.10
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.09	0.71	0.22	1.50	0.25	0.28	4.99	1.03	0.28	2.50*	1.60	4.35
Effect size for difference		#	‡	#	0.02	#	#	‡	0.01	#	0.03	0.02	0.05
RAINDIAN	Race: American Indian or Alaska Native												
Before imputation													
Mean percent relative bias across characteristics		0.75	9.92	2.44	2.32	1.87	1.50	6.19	1.77	1.45	5.17	7.50	3.21
Median percent relative bias across characteristics		0.19	5.09	1.32	1.03	0.95	0.85	3.20	1.21	0.62	3.34	4.86	2.07
Percentage of characteristics with significant bias		37.14	8.89	56.10	22.50	33.33	45.24	7.27	26.51	34.94	13.64	29.73	12.99
Median effect size		0.10	0.20	0.09	0.09	0.10	0.09	0.21	0.07	0.10	0.24	0.32	0.10
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.40*	0.27	0.04	0.25	0.59	1.10*	0.78	0.89	0.29	0.12	0.53	0.23
Effect size for difference		0.01	‡	#	0.01	0.01	0.02	‡	0.02	0.01	‡	‡	‡

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
RAISLAND	Race: Native Hawaiian or other Pacific Islander												
Before imputation													
Mean percent relative bias across characteristics		0.75	9.92	2.44	2.32	1.87	1.50	6.19	1.77	1.45	5.17	7.50	3.21
Median percent relative bias across characteristics		0.19	5.09	1.32	1.03	0.95	0.85	3.20	1.21	0.62	3.34	4.86	2.07
Percentage of characteristics with significant bias		37.14	8.89	56.10	22.50	33.33	45.24	7.27	26.51	34.94	13.64	29.73	12.99
Median effect size		0.10	0.20	0.09	0.09	0.10	0.09	0.21	0.07	0.10	0.24	0.32	0.10
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.27*	0.02	0.14	0.02	0.30	0.76*	#	0.45	0.25	0.07	0.37	0.06
Effect size for difference		0.01	‡	#	#	0.01	0.03	‡	0.02	0.01	‡	‡	‡
RAWHITE	Race: White												
Before imputation													
Mean percent relative bias across characteristics		0.75	9.92	2.44	2.32	1.87	1.50	6.19	1.77	1.45	5.17	7.50	3.21
Median percent relative bias across characteristics		0.19	5.09	1.32	1.03	0.95	0.85	3.20	1.21	0.62	3.34	4.86	2.07
Percentage of characteristics with significant bias		37.14	8.89	56.10	22.50	33.33	45.24	7.27	26.51	34.94	13.64	29.73	12.99
Median effect size		0.10	0.20	0.09	0.09	0.10	0.09	0.21	0.07	0.10	0.24	0.32	0.10
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		0.84*	1.12	0.96*	2.07	0.42	0.89	1.33	0.68	2.16*	4.07	14.47*	0.78
Effect size for difference		0.01	‡	0.01	0.02	0.01	0.01	0.01	0.01	0.03	0.04	0.15	0.01

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
SINCOL	Independent students: Number of family members in college												
Before imputation													
Mean percent relative bias across characteristics		1.30	11.92	4.30	3.48	3.77	3.09	10.83	4.84	5.12	8.41	7.55	2.70
Median percent relative bias across characteristics		0.22	7.37	2.01	1.72	1.88	1.44	8.00	2.93	3.12	6.84	4.53	1.40
Percentage of characteristics with significant bias		27.64	13.73	54.22	19.51	29.41	37.21	16.00	30.95	42.17	20.00	20.00	18.42
Median effect size		0.16	0.43	0.21	0.16	0.23	0.15	0.36	0.22	0.27	0.38	0.41	0.14
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		2.26*	4.54*	3.34*	2.61*	1.53*	2.28*	1.29	0.85*	1.53*	0.12	0.67	1.02
Effect size for difference		0.07	0.15	0.10	0.08	0.04	0.08	0.05	0.02	0.05	0.01	0.03	0.03
SMARITAL	Marital status												
Before imputation													
Mean percent relative bias across characteristics		1.12	12.19	3.62	3.32	2.49	2.53	6.85	2.83	3.83	6.60	6.43	2.48
Median percent relative bias across characteristics		0.15	7.86	1.57	1.95	1.54	1.14	4.11	1.43	2.08	4.96	5.05	1.39
Percentage of characteristics with significant bias		36.18	24.53	62.65	38.27	50.59	48.84	12.96	36.90	53.01	13.85	19.18	8.00
Median effect size		0.21	0.44	0.23	0.17	0.15	0.15	0.24	0.17	0.24	0.33	0.30	0.12
After imputation													
Difference between pre- and postimputation means		0.99*	4.51	0.98*	0.50	0.98*	0.67*	1.61	2.87*	2.56*	0.32	1.47*	1.65*
Effect size for difference		0.02	‡	0.02	‡	‡	0.01	‡	0.05	‡	‡	‡	‡

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
SPINCOL	Independent students: Spouse attending college												
Before imputation													
Mean percent relative bias across characteristics		2.73	26.73	8.78	7.49	8.57	6.71	22.24	9.20	9.89	13.24	9.50	5.04
Median percent relative bias across characteristics		0.41	18.94	3.53	5.80	5.96	4.76	16.49	5.89	5.90	10.07	6.59	3.62
Percentage of characteristics with significant bias		26.75	54.35	59.76	33.33	43.21	39.76	43.90	29.27	43.59	16.13	18.84	9.46
Median effect size		0.38	0.94	0.50	0.35	0.55	0.37	0.71	0.47	0.45	0.71	0.51	0.26
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		25.57*	39.42*	26.42*	26.63*	17.57*	24.18*	‡	26.64*	23.94*	15.68*	34.72*	26.44*
Effect size for difference		0.30	0.43	0.32	0.31	0.19	0.26	‡	0.32	0.28	0.24	0.45	0.33
STUSTATE	State of legal residence												
Before imputation													
Mean percent relative bias across characteristics		0.63	9.06	2.32	1.80	1.69	1.05	5.86	1.56	1.28	7.22	7.01	1.87
Median percent relative bias across characteristics		0.16	5.90	0.87	0.58	0.99	0.68	3.47	0.87	0.81	5.87	4.58	1.01
Percentage of characteristics with significant bias		31.69	5.66	53.01	12.35	30.59	37.65	1.92	19.05	36.59	21.54	22.22	5.41
Median effect size		0.09	0.22	0.09	0.09	0.06	0.07	0.21	0.07	0.05	0.35	0.32	0.08
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		2.26*	4.54*	3.34*	2.61*	1.53*	2.28*	1.29	0.85*	1.53*	0.12	0.67	1.02
Effect size for difference		‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
TAXRATIO	Interim variable: Percentage of income used to pay federal tax												
Before imputation													
Mean percent relative bias across characteristics		1.36	11.96	4.08	3.96	3.26	3.06	9.92	3.61	4.34	9.77	7.14	3.51
Median percent relative bias across characteristics		0.17	9.27	1.78	2.33	1.92	1.20	7.55	1.66	2.06	7.49	4.66	2.00
Percentage of characteristics with significant bias		38.21	23.64	59.76	40.00	51.19	51.76	27.87	39.29	46.34	29.85	20.00	23.38
Median effect size		0.24	0.50	0.30	0.21	0.18	0.16	0.53	0.18	0.23	0.47	0.35	0.23
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		10.01*	9.19	14.24*	14.39*	5.78*	10.87*	7.93	4.08*	7.36*	17.32*	8.32	8.69*
Effect size for difference		0.06	0.07	0.08	0.08	0.03	0.08	0.04	0.03	0.06	0.05	0.03	0.04
TEACTDER_AC	ACT derived composite score												
Before imputation													
Mean percent relative bias across characteristics		1.50	12.76	3.26	3.26	2.54	1.76	10.38	4.13	2.53	11.35	10.09	5.76
Median percent relative bias across characteristics		0.31	6.84	1.19	1.28	1.53	1.15	9.14	3.02	1.42	10.09	6.83	3.50
Percentage of characteristics with significant bias		47.35	12.00	48.19	23.46	40.96	44.05	6.35	47.56	54.88	21.21	35.14	16.88
Median effect size		0.22	0.22	0.12	0.13	0.13	0.11	0.45	0.28	0.18	0.58	0.47	0.31
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		2.78*	4.47*	0.21	0.79	0.54	0.24	6.41*	2.32*	1.90*	4.68*	4.30	0.23
Effect size for difference		0.11	0.18	0.01	0.03	0.03	0.01	0.27	0.10	0.08	0.22	0.17	0.01

See notes at end of table.



**Table K-78. Summary of undergraduate student-level item bias analysis for undergraduate students for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public					Private nonprofit			Private for-profit		
			Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
TESATDER_AC	SAT derived composite score												
Before imputation													
Mean percent relative bias across characteristics		1.50	12.76	3.26	3.26	2.54	1.76	10.38	4.13	2.53	11.35	10.09	5.76
Median percent relative bias across characteristics		0.31	6.84	1.19	1.28	1.53	1.15	9.14	3.02	1.42	10.09	6.83	3.50
Percentage of characteristics with significant bias		47.35	12.00	48.19	23.46	40.96	44.05	6.35	47.56	54.88	21.21	35.14	16.88
Median effect size		0.22	0.22	0.12	0.13	0.13	0.11	0.45	0.28	0.18	0.58	0.47	0.31
After imputation													
Difference between pre- and postimputation means <sup>1</sup>		2.34*	5.79*	0.13	0.69	0.41	0.18	3.67	2.03*	1.62*	2.49*	3.81	0.28
Effect size for difference		0.12	0.26	0.01	0.04	0.02	0.01	0.19	0.10	0.08	0.13	0.18	0.01

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < .05$ . The difference between the pre- and postimputation means was significant at the 0.05 level. For categorical variables, at least one category difference was significant.<sup>1</sup> For categorical variables, this was the size-weighted average percentage difference across categories pre- and postimputation.

NOTE: Relative bias and effect size are calculated using the weighted differences between respondent and full-sample means. Relative bias was defined as the ratio of estimated bias to the weighted full-sample mean. Effect size for categorical variables was 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.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
AGE_BAYEAR	Age received bachelor's degree							
Before imputation								
Mean percent relative bias across characteristics		2.27	13.39	4.07	2.49	5.11	2.58	4.50
Median percent relative bias across characteristics		1.33	14.60	2.70	1.35	4.13	1.67	2.88
Percentage of characteristics with significant bias		43.06	28.57	28.85	37.10	27.78	29.03	28.30
Median effect size		0.15	0.36	0.18	0.18	0.28	0.17	0.20
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		2.49*	‡	0.21	2.26*	2.21	3.17*	4.01*
Effect size for difference		0.09	‡	0.01	0.09	0.07	0.12	0.13
CITIZEN2	Citizenship status							
Before imputation								
Mean percent relative bias across characteristics		1.16	11.74	2.87	1.18	2.46	1.53	1.13
Median percent relative bias across characteristics		0.69	11.39	2.42	0.76	1.72	1.08	0.73
Percentage of characteristics with significant bias		47.83	42.86	30.77	37.93	27.45	40.74	2.13
Median effect size		0.08	0.32	0.11	0.07	0.13	0.11	0.05
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		2.18*	‡	7.96*	1.00	6.49*	2.72*	0.04
Effect size for difference		0.03	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
DEPANY	Dependents: Has any dependents							
Before imputation								
Mean percent relative bias across characteristics		3.79	13.22	6.06	4.62	5.00	5.06	3.52
Median percent relative bias across characteristics		1.58	10.66	3.45	2.56	2.16	2.85	1.96
Percentage of characteristics with significant bias		55.56	50.00	35.42	61.67	36.54	52.63	32.08
Median effect size		0.18	0.41	0.30	0.22	0.24	0.24	0.21
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.73	‡	9.57*	4.64*	1.23	2.36	0.42
Effect size for difference		0.01	‡	0.10	0.05	0.01	0.03	#
DEPCHILD	Dependents: Has dependent children							
Before imputation								
Mean percent relative bias across characteristics		3.79	13.22	6.06	4.62	4.98	5.06	3.51
Median percent relative bias across characteristics		1.58	10.66	3.45	2.56	2.25	2.85	1.95
Percentage of characteristics with significant bias		55.56	50.00	35.42	61.67	38.46	52.63	32.08
Median effect size		0.18	0.41	0.30	0.22	0.25	0.24	0.21
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.36	‡	8.99*	3.87*	1.62	2.32	0.30
Effect size for difference		#	‡	0.10	0.04	0.02	0.03	#

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
DEPCOL	Independent students: Number of dependents in college							
Before imputation								
Mean percent relative bias across characteristics		7.34	22.70	14.32	8.85	7.83	9.23	5.24
Median percent relative bias across characteristics		3.65	27.20	8.43	4.32	3.96	3.69	1.88
Percentage of characteristics with significant bias		60.87	36.36	42.50	46.55	36.00	39.29	31.37
Median effect size		0.34	0.60	0.60	0.35	0.35	0.41	0.28
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		16.62*	10.84	37.09*	15.80	2.37	29.99*	2.67
Effect size for difference		0.07	0.06	0.16	0.07	0.01	0.13	0.01
DEPNUM	Dependents: Has any dependents (number)							
Before imputation								
Mean percent relative bias across characteristics		3.79	13.22	6.06	4.62	4.98	5.07	3.51
Median percent relative bias across characteristics		1.57	10.66	3.45	2.56	2.26	2.83	1.95
Percentage of characteristics with significant bias		55.56	50.00	35.42	61.67	38.46	52.63	32.08
Median effect size		0.18	0.41	0.30	0.22	0.25	0.24	0.21
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		1.52	0.56	13.02*	11.91*	4.03	2.28	0.92
Effect size for difference		0.01	0.01	0.08	0.06	0.03	0.01	0.01

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
DEPOTHER	Dependents: Has dependent(s) other than children							
Before imputation								
Mean percent relative bias across characteristics		3.79	13.22	6.06	4.62	4.98	5.06	3.51
Median percent relative bias across characteristics		1.58	10.66	3.45	2.56	2.25	2.85	1.95
Percentage of characteristics with significant bias		55.56	50.00	35.42	61.67	38.46	52.63	32.08
Median effect size		0.18	0.41	0.30	0.22	0.25	0.24	0.21
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.19	‡	4.96*	0.73	2.77	0.66	1.09
Effect size for difference		#	‡	0.09	0.02	0.05	0.01	0.01
GRADLVL2	Graduate class level							
Before imputation								
Mean percent relative bias across characteristics		1.58	21.10	3.12	1.69	2.90	2.29	2.53
Median percent relative bias across characteristics		1.04	19.85	1.57	0.93	2.13	1.61	1.50
Percentage of characteristics with significant bias		41.67	66.67	12.50	46.67	28.85	44.07	17.65
Median effect size		0.11	0.62	0.14	0.13	0.16	0.15	0.09
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		1.07	4.91	5.83	0.96	2.51	0.89	0.50
Effect size for difference		‡	‡	‡	‡	‡	‡	‡

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
HISPANIC	Race: Hispanic or Latino origin							
Before imputation								
Mean percent relative bias across characteristics		1.16	10.56	3.12	1.00	2.05	1.76	3.47
Median percent relative bias across characteristics		0.74	9.91	2.32	0.53	0.82	1.16	1.67
Percentage of characteristics with significant bias		31.43	25.00	13.51	35.59	16.67	30.36	10.00
Median effect size		0.09	0.24	0.09	0.08	0.13	0.11	0.15
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.36	‡	0.16	0.04	0.59	0.29	3.28*
Effect size for difference		0.01	‡	‡	#	0.01	#	0.05
INCOMEG	Total income (categorical)							
Before imputation								
Mean percent relative bias across characteristics		4.83	13.91	7.06	5.57	5.98	5.90	3.81
Median percent relative bias across characteristics		2.50	10.58	3.49	2.96	2.68	3.32	2.07
Percentage of characteristics with significant bias		62.86	46.67	40.00	62.30	36.54	57.63	35.85
Median effect size		0.21	0.49	0.35	0.23	0.29	0.24	0.22
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		22.26*	‡	22.08*	29.64*	26.65*	21.81*	9.39*
Effect size for difference		0.26	‡	0.25	0.32	0.30	0.26	0.10

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
MONTH_BAYEARM	Month received bachelor's degree							
Before imputation								
Mean percent relative bias across characteristics		2.27	13.39	4.07	2.49	5.11	2.58	4.50
Median percent relative bias across characteristics		1.33	14.60	2.70	1.35	4.13	1.67	2.88
Percentage of characteristics with significant bias		43.06	28.57	28.85	37.10	27.78	29.03	28.30
Median effect size		0.15	0.36	0.18	0.18	0.28	0.17	0.20
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		1.13	‡	1.09	0.26	2.89	3.03*	0.88
Effect size for difference		0.03	‡	0.02	0.01	0.06	0.07	0.02
MULTIRACIAL	Student's multiracial status							
Before imputation								
Mean percent relative bias across characteristics		1.18	7.39	3.06	1.55	1.90	1.68	2.62
Median percent relative bias across characteristics		0.67	10.31	2.14	0.95	0.94	1.14	1.57
Percentage of characteristics with significant bias		36.76	14.29	17.50	46.55	20.41	31.58	6.25
Median effect size		0.07	0.23	0.09	0.09	0.12	0.10	0.08
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.49	‡	0.35*	1.21	0.85	0.12	0.90
Effect size for difference		0.01	‡	‡	0.03	‡	#	0.03

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
OTHFDGRT	Other federal grants (not Title IV)							
Before imputation								
Mean percent relative bias across characteristics		1.17	12.90	3.34	1.39	1.91	1.63	0.88
Median percent relative bias across characteristics		0.78	10.56	2.70	0.74	0.94	1.13	0.56
Percentage of characteristics with significant bias		40.58	12.50	27.50	36.21	18.37	37.04	0.00
Median effect size		0.08	0.40	0.16	0.09	0.13	0.11	0.03
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		30.97	‡	80.98	14.85	18.02	32.19	0.49
Effect size for difference		0.01	‡	0.03	#	0.01	0.01	#
PARED1B	Parent 1: Highest education level							
Before imputation								
Mean percent relative bias across characteristics		3.81	13.86	6.29	4.75	4.81	5.01	3.56
Median percent relative bias across characteristics		1.70	14.63	3.18	2.49	1.91	3.20	2.03
Percentage of characteristics with significant bias		55.56	20.00	40.82	54.10	36.36	54.24	28.85
Median effect size		0.18	0.32	0.30	0.22	0.25	0.23	0.20
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		3.02*	‡	4.66	4.35*	4.63*	5.46*	2.10
Effect size for difference		0.03	‡	0.05	0.04	0.06	0.06	0.03

See notes at end of table.



**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
PARED1_AC	Parent 1 highest education level							
Before imputation								
Mean percent relative bias across characteristics		3.81	13.86	6.29	4.75	4.81	5.01	3.56
Median percent relative bias across characteristics		1.70	14.63	3.18	2.49	1.91	3.20	2.03
Percentage of characteristics with significant bias		55.56	20.00	40.82	54.10	36.36	54.24	28.85
Median effect size		0.18	0.32	0.30	0.22	0.25	0.23	0.20
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		3.02*	‡	4.66	4.35*	4.63*	5.46*	2.10
Effect size for difference		0.03	‡	0.05	0.04	0.06	0.06	0.03
PARED2B	Parent 2: Highest education level							
Before imputation								
Mean percent relative bias across characteristics		3.66	14.94	5.86	4.65	4.73	4.95	3.27
Median percent relative bias across characteristics		1.40	11.29	2.72	2.16	1.82	2.35	2.15
Percentage of characteristics with significant bias		54.17	20.00	38.00	59.02	30.91	50.85	17.31
Median effect size		0.17	0.33	0.26	0.22	0.25	0.23	0.18
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		3.20*	‡	3.77	3.83	2.26	5.90*	2.03
Effect size for difference		0.03	‡	0.04	0.04	0.02	0.06	0.03

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
PARED2_AC	Parent 2 highest education level							
Before imputation								
Mean percent relative bias across characteristics		3.66	14.94	5.86	4.65	4.73	4.95	3.27
Median percent relative bias across characteristics		1.40	11.29	2.72	2.16	1.82	2.35	2.15
Percentage of characteristics with significant bias		54.17	20.00	38.00	59.02	30.91	50.85	17.31
Median effect size		0.17	0.33	0.26	0.22	0.25	0.23	0.18
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		3.20*	‡	3.77	3.83	2.26	5.90*	2.03
Effect size for difference		0.03	‡	0.04	0.04	0.02	0.06	0.03
RAASIAN	Race: Asian							
Before imputation								
Mean percent relative bias across characteristics		1.18	7.39	3.06	1.55	1.90	1.68	2.62
Median percent relative bias across characteristics		0.67	10.31	2.14	0.95	0.96	1.13	1.57
Percentage of characteristics with significant bias		36.76	14.29	17.50	46.55	20.41	31.58	6.25
Median effect size		0.07	0.23	0.09	0.09	0.12	0.10	0.08
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.48	‡	1.19	1.62	2.54	0.69	3.23
Effect size for difference		0.01	‡	0.02	0.02	0.04	0.01	0.05

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
RABBLACK	Race: Black or African American							
Before imputation								
Mean percent relative bias across characteristics		1.18	7.39	3.06	1.55	1.90	1.68	2.62
Median percent relative bias across characteristics		0.67	10.31	2.14	0.95	0.96	1.13	1.57
Percentage of characteristics with significant bias		36.76	14.29	17.50	46.55	20.41	31.58	6.25
Median effect size		0.07	0.23	0.09	0.09	0.12	0.10	0.08
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.42	‡	1.46	0.29	0.91	0.21	1.20
Effect size for difference		0.01	‡	‡	#	‡	#	0.01
RAINDIAN	Race: American Indian or Alaska Native							
Before imputation								
Mean percent relative bias across characteristics		1.18	7.39	3.06	1.55	1.90	1.68	2.62
Median percent relative bias across characteristics		0.67	10.31	2.14	0.95	0.96	1.13	1.57
Percentage of characteristics with significant bias		36.76	14.29	17.50	46.55	20.41	31.58	6.25
Median effect size		0.07	0.23	0.09	0.09	0.12	0.10	0.08
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.20	‡	0.36*	0.03	0.35	0.18	0.10
Effect size for difference		0.01	‡	‡	#	‡	‡	‡

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
RAISLAND	Race: Native Hawaiian or other Pacific Islander							
Before imputation								
Mean percent relative bias across characteristics		1.18	7.39	3.06	1.55	1.90	1.68	2.62
Median percent relative bias across characteristics		0.67	10.31	2.14	0.95	0.96	1.13	1.57
Percentage of characteristics with significant bias		36.76	14.29	17.50	46.55	20.41	31.58	6.25
Median effect size		0.07	0.23	0.09	0.09	0.12	0.10	0.08
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.61	‡	0.08	1.21	0.06	0.08	0.31
Effect size for difference		0.02	‡	‡	0.04	‡	‡	‡
RAWHITE	Race: White							
Before imputation								
Mean percent relative bias across characteristics		1.18	7.39	3.06	1.55	1.90	1.68	2.62
Median percent relative bias across characteristics		0.67	10.31	2.14	0.95	0.96	1.13	1.57
Percentage of characteristics with significant bias		36.76	14.29	17.50	46.55	20.41	31.58	6.25
Median effect size		0.07	0.23	0.09	0.09	0.12	0.10	0.08
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		0.44	‡	3.68*	0.75	2.95	0.78	3.94
Effect size for difference		#	‡	0.04	0.01	0.04	0.01	0.04

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
SINCOL	Independent students: Number of family members in college							
Before imputation								
Mean percent relative bias across characteristics		1.91	13.98	4.64	1.95	3.84	2.56	3.07
Median percent relative bias across characteristics		0.81	12.01	4.08	0.90	2.56	1.28	1.60
Percentage of characteristics with significant bias		56.94	46.15	36.36	46.67	37.74	50.00	26.92
Median effect size		0.14	0.40	0.23	0.13	0.22	0.19	0.13
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		4.31*	1.29	6.75*	4.32*	4.81*	4.58*	1.91*
Effect size for difference		0.12	0.03	0.18	0.13	0.12	0.14	0.05
SMARITAL	Marital status							
Before imputation								
Mean percent relative bias across characteristics		3.71	12.82	6.02	4.33	4.36	4.95	3.05
Median percent relative bias across characteristics		1.96	10.25	3.33	1.78	2.87	2.99	1.44
Percentage of characteristics with significant bias		59.72	50.00	33.33	59.02	42.31	59.65	26.42
Median effect size		0.19	0.41	0.31	0.21	0.25	0.24	0.18
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		1.86	2.52	3.22	0.64	4.32*	3.38	1.77
Effect size for difference		0.02	‡	‡	0.01	‡	0.04	‡

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
SPINCOL	Independent students: Spouse attending college							
Before imputation								
Mean percent relative bias across characteristics		6.57	36.15	15.47	8.23	7.39	9.08	6.21
Median percent relative bias across characteristics		2.69	46.82	9.52	3.33	3.58	5.08	4.26
Percentage of characteristics with significant bias		52.86	50.00	37.50	45.61	31.37	40.35	24.00
Median effect size		0.33	1.37	0.66	0.37	0.44	0.44	0.34
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		20.04*	‡	39.54*	13.26*	32.46*	17.62*	26.76*
Effect size for difference		0.24	‡	0.42	0.15	0.38	0.22	0.33
TAXRATIO	Interim variable: Percentage of income used to pay federal tax							
Before imputation								
Mean percent relative bias across characteristics		5.16	16.18	8.41	6.07	6.29	6.88	5.24
Median percent relative bias across characteristics		1.87	11.86	3.64	2.36	2.26	3.56	3.00
Percentage of characteristics with significant bias		52.11	46.67	32.65	53.23	32.69	54.24	24.53
Median effect size		0.20	0.62	0.39	0.24	0.25	0.25	0.24
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		9.21*	8.38	1.44	12.50*	7.11	13.37*	1.53
Effect size for difference		0.07	0.06	0.01	0.10	0.06	0.08	0.01

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
TFEDWRK	Federal work-study							
Before imputation								
Mean percent relative bias across characteristics		1.06	12.73	3.01	1.22	2.01	1.44	1.92
Median percent relative bias across characteristics		0.60	9.99	2.68	0.67	1.01	1.05	1.06
Percentage of characteristics with significant bias		34.78	12.50	33.33	37.50	18.00	29.63	0.00
Median effect size		0.07	0.39	0.12	0.08	0.13	0.10	0.07
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		5.16	‡	8.85	1.77	35.67	2.53	55.48
Effect size for difference		0.01	‡	0.01	#	0.02	#	0.03
TOTAID	Total aid amount							
Before imputation								
Mean percent relative bias across characteristics		1.18	12.90	3.35	1.39	2.07	1.61	1.96
Median percent relative bias across characteristics		0.59	10.56	2.68	0.74	1.00	1.08	0.99
Percentage of characteristics with significant bias		35.71	12.50	27.50	40.68	16.00	34.55	0.00
Median effect size		0.09	0.40	0.16	0.10	0.13	0.10	0.06
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		8.06*	‡	22.48*	7.88*	5.66	8.57*	0.54
Effect size for difference		0.05	‡	0.14	0.05	0.04	0.06	#

See notes at end of table.

**Table K-79. Summary of graduate student-level item bias analysis for imputed and select derived variables, by control and level of institution: 2017–18—Continued**

Variable name	Variable label	All students	Public			Private nonprofit		Private for-profit 4-year
			4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	4-year, non-doctorate-granting	4-year, doctorate-granting	
TOTGRT	Total grants							
Before imputation								
Mean percent relative bias across characteristics		1.15	12.90	3.35	1.39	1.92	1.59	0.93
Median percent relative bias across characteristics		0.77	10.56	2.68	0.69	0.93	1.09	0.53
Percentage of characteristics with significant bias		40.00	12.50	27.50	41.38	18.37	38.18	0.00
Median effect size		0.08	0.40	0.16	0.09	0.13	0.10	0.03
After imputation								
Difference between pre- and postimputation means <sup>1</sup>		1.20	‡	11.66	1.44	10.17	0.08	1.13
Effect size for difference		#	‡	0.03	0.01	0.03	#	#

# Rounds to zero.

‡ Reporting standards not met (fewer than 30 nonrespondents).

\*  $p < .05$ . The difference between the pre- and postimputation means was significant at the 0.05 level. For categorical variables, at least one category difference was significant.<sup>1</sup> For categorical variables, this was the size-weighted average percentage difference across categories pre- and postimputation.

NOTE: Relative bias and effect size are calculated using the weighted differences between respondent and full-sample means. Relative bias was defined as the ratio of estimated bias to the weighted full-sample mean. Effect size for categorical variables was 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.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



## Appendix L. Weighted Analysis

The 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC), sampling design was a stratified two-stage design. At the first stage, a census of all public 2-year and all public 4-year institutions was taken, and a stratified sample of institutions from the “all other institutions” stratum was selected with probabilities proportional to a composite measure of size. At the first stage, about 28 percent of the eligible institutions in the “all other institutions” stratum were selected.

At the second stage, a stratified systematic sample of students was selected from the institutions selected in the first stage. Several groups of students were sampled at higher rates than other students (chapter 2). Statistical analyses were conducted with software that properly accounts for this complex survey design.

When analyzing data from a survey with a complex sample design, such as NPSAS:18-AC, the design needs to be considered. A common assumption for variance estimation is that the survey used simple random sampling rather than using a complex design. This incorrect assumption usually leads to an underestimate of the sampling variance, which would lead to artificially small confidence intervals and liberal hypothesis test results (i.e., rejecting the null hypothesis when it is in fact true more often than indicated by the nominal Type I error level; see Carlson, Johnson, and Cohen [1993]).

Statistical strategies developed to address this issue include first-order Taylor-series expansion of the variance equation, bootstrap replication, balanced repeated replication, and the jackknife approach (e.g., Wolter [1985]). Most statistical software packages have been developed for analysis of complex sample survey data, such as SUDAAN, Stata, SAS, R, WesVar, and SPSS. The National Center for Education Statistics (NCES) also has developed a software tool called PowerStats for analysis of complex survey data. Following is a list of these software packages and their websites, which have more information about the software packages and how to purchase or use them:

- SUDAAN: <https://www.rti.org/sudaan>;
- Stata: <https://www.stata.com>;
- SAS: <https://www.sas.com>;
- R: <https://www.r-project.org>;
- WesVar: <https://www.westat.com/capability/information-systems-software/wesvar/how-wesvar-works>;
- SPSS: <http://www.spss.com>; and
- NCES PowerStats: <https://nces.ed.gov/datalab/index.aspx>.

When computing standard errors by using Taylor-series approximation, analysts should use the variables ANALSTR and ANALPSU in specifying analysis strata and analysis primary sampling units (PSUs). This method of variance estimation may overestimate the variance because it does not always account for the finite population correction (FPC) at the institution stage of sampling. Additionally, the analyst should specify the final analysis weight (WTA000). Below is an example of generic SUDAAN code to produce estimates and standard errors, using Taylor-series approximation and not accounting for FPC. The symbols /\* and \*/ in the code indicate the beginning and end of a comment, respectively. The dataset must be sorted by the analysis strata and PSUs to run this analysis.

```
PROC DESCRIPT DATA=/* INSERT FILENAME */ DESIGN=WR;  
  NEST ANALSTR ANALPSU;  
  WEIGHT WTA000;  
  VAR /* INSERT VARIABLES */;  
  SUBPOPN /* INSERT DOMAIN OF INTEREST */;  
  PRINT NSUM MEAN SEMEAN / STYLE=NCHS;  
RUN;
```

When computing standard errors by using Taylor-series approximation, the analyst could, alternatively, use the variables FANALSTR, FANALPSU, FANALSSU, and PSUCOUNT in specifying analysis strata, analysis PSUs, analysis secondary sampling units (SSUs), and estimated number of PSUs in the stratum. This method of variance estimation accounts for FPC at the institution stage of sampling.

Below is an example of generic SUDAAN code to produce estimates and standard errors with the use of Taylor-series approximation accounting for FPC. The dataset must be sorted by the analysis strata, analysis PSUs, and analysis SSUs in order to run this analysis.

```
PROC DESCRIPT DATA=/* INSERT FILENAME */  
  DESIGN=WOR;  
  NEST FANALSTR FANALPSU FANALSSU;  
  TOTCNT PSUCOUNT _MINUS1__ _ZERO_;  
  WEIGHT WTA000;  
  VAR /* INSERT VARIABLES */;  
  SUBPOPN /* INSERT DOMAIN OF INTEREST */;  
  PRINT NSUM MEAN SEMEAN / STYLE=NCHS;  
RUN;
```

When computing standard errors by using bootstrap replication, the analyst should specify the bootstrap weights WTA001–WTA200 in addition to specifying WTA000.

Below is an example of generic SUDAAN code to produce estimates and standard errors with the use of bootstrap replication. The dataset does not have to be sorted to run this analysis.

```
PROC DESCRIPT DATA=/* INSERT FILENAME */  
DESIGN=BRR;  
REPWGT WTA001-WTA200;  
WEIGHT WTA000;  
VAR /* INSERT VARIABLES */;  
SUBPOPN /* INSERT DOMAIN OF INTEREST */;  
PRINT NSUM MEAN SEMEAN / STYLE=NCHS;  
RUN;
```

If an analysis of NPSAS:18-AC data must be performed without using one of the software packages for analysis of complex survey data, then the design effects tables that are presented in appendix M can be used to make approximate adjustments to the standard errors of survey statistics computed with the use of standard software packages that assume simple random sampling designs. For example, table M-3 shows design effects and square roots of design effects (DEFTs) for undergraduate students at public 2-year institutions. If a statistic not listed in the table has been computed (e.g., mean Stafford Loan amount) for this domain of students, then the summary statistics from table M-3 show that the standard error based on the assumption of a simple random sample design be multiplied by a survey DEFT of 2.08 (the median for this domain). The range of DEFTs shown in table M-3 for this domain, however, is about 0.55–4.30. See chapter 6 for more discussion about the use of design effects.

## References

- Carlson, B.L., Johnson, A.E., and Cohen, S.B. (1993). An Evaluation of the Use of Personal Computers for Variance Estimation With Complex Survey Data. *Journal of Official Statistics*, 9(4): 795–814.
- Wolter, K. (1985). *Introduction to Variance Estimation*. New York: Springer-Verlag.

## Appendix M. Design Effects

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**Table M-1. Design effects for all undergraduate students: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	70.1	0.32	0.09	3.49	12.18
Received any federal aid	TFEDAID>0	59.1	0.27	0.10	2.71	7.33
Received any state grant aid	STGTAMT>0	24.5	0.23	0.09	2.63	6.93
Received any institution grant aid	INGRTAMT>0	25.0	0.41	0.09	4.71	22.21
Received any work-study aid	TOTWKST>0	6.7	0.22	0.05	4.37	19.09
Received a Pell Grant	PELLAMT>0	43.8	0.29	0.10	2.90	8.40
Received a Direct Loan	STAFFAMT>0	38.7	0.21	0.10	2.09	4.37
Subsidized	STAFSUB>0	33.4	0.21	0.10	2.20	4.82
Unsubsidized	STAFUNSB>0	32.7	0.21	0.09	2.24	5.04
Married	SMARITAL=2	11.1	0.16	0.06	2.50	6.26
U.S. citizen	CITIZEN2=1	92.0	0.19	0.05	3.51	12.35
Enrolled exclusively full time	ATTNPTRN=1	43.0	0.41	0.10	4.14	17.15
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	61.8	0.33	0.10	3.35	11.25
Received any employer aid	EMPLYAM3>0	0.4	0.03	0.01	2.71	7.33
Enrolled in a bachelor's degree program	UGDEG=3	52.0	0.40	0.10	3.99	15.90
Major with a focus in STEM	STEMMAJ in (1, 2)	23.2	0.29	0.09	3.38	11.40
Attended more than one institution in 2017–18	STUDMULT>1	12.5	0.39	0.07	5.90	34.76
Has dependents other than a spouse	DEPANY=1	19.9	0.32	0.08	3.96	15.70
U.S. Armed Forces veteran	VETERAN=1	4.1	0.12	0.04	3.06	9.38
Summary statistics						
Minimum		†	†	†	2.09	4.37
25th percentile		†	†	†	2.63	6.93
Median		†	†	†	3.35	11.25
75th percentile		†	†	†	3.99	15.90
Maximum		†	†	†	5.90	34.76

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table M-2. Design effects for undergraduate students at public less-than-2-year institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	44.4	5.71	1.67	3.43	11.74
Received any federal aid	TFEDAID>0	38.2	2.52	1.63	1.54	2.38
Received any state grant aid	STGTAMT>0	1.1	1.68	0.36	4.72	22.32
Received any institution grant aid	INGRTAMT>0	6.0	6.85	0.80	8.58	73.65
Received any work-study aid	TOTWKST>0	0.1	0.13	0.10	1.27	1.62
Received a Pell Grant	PELLAMT>0	30.3	1.28	1.54	0.83	0.69
Received a Direct Loan	STAFFAMT>0	14.8	1.93	1.19	1.62	2.63
Subsidized	STAFSUB>0	13.2	1.63	1.14	1.43	2.06
Unsubsidized	STAFUNSB>0	14.3	1.84	1.17	1.57	2.46
Married	SMARITAL=2	15.2	3.44	1.20	2.85	8.15
U.S. citizen	CITIZEN2=1	93.9	2.35	0.80	2.93	8.56
Enrolled exclusively full time	ATTNPTRN=1	55.4	6.76	1.67	4.05	16.43
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	80.5	4.11	1.33	3.09	9.55
Received any employer aid	EMPLYAM3>0	0.0	0.14	0.06	2.39	5.73
Enrolled in a bachelor's degree program	UGDEG=3	†	†	†	†	†
Major with a focus in STEM	STEMMAJ in (1, 2)	12.7	5.01	1.12	4.48	20.07
Attended more than one institution in 2017–18	STUDMULT>1	10.0	4.13	1.01	4.09	16.72
Has dependents other than a spouse	DEPANY=1	33.3	3.22	1.58	2.03	4.13
U.S. Armed Forces veteran	VETERAN=1	4.5	2.80	0.69	4.04	16.34
Summary statistics						
Minimum		†	†	†	0.83	0.69
25th percentile		†	†	†	1.57	2.46
Median		†	†	†	2.89	8.36
75th percentile		†	†	†	4.05	16.43
Maximum		†	†	†	8.58	73.65

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-3. Design effects for undergraduate students at public 2-year institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	56.5	0.36	0.18	2.06	4.24
Received any federal aid	TFEDAID>0	48.0	0.28	0.18	1.57	2.47
Received any state grant aid	STGTAMT>0	23.0	0.64	0.15	4.30	18.46
Received any institution grant aid	INGRTAMT>0	5.2	0.25	0.08	3.14	9.89
Received any work-study aid	TOTWKST>0	2.2	0.21	0.05	4.13	17.08
Received a Pell Grant	PELLAMT>0	42.0	0.23	0.17	1.29	1.67
Received a Direct Loan	STAFFAMT>0	16.1	0.12	0.13	0.92	0.84
Subsidized	STAFSUB>0	13.5	0.07	0.12	0.60	0.36
Unsubsidized	STAFUNSB>0	11.6	0.06	0.11	0.55	0.30
Married	SMARITAL=2	13.5	0.25	0.12	2.07	4.26
U.S. citizen	CITIZEN2=1	92.2	0.27	0.10	2.87	8.21
Enrolled exclusively full time	ATTNPTRN=1	21.8	0.40	0.15	2.75	7.54
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	82.8	0.31	0.13	2.34	5.48
Received any employer aid	EMPLYAM3>0	0.2	0.02	0.01	1.58	2.49
Enrolled in a bachelor's degree program	UGDEG=3	†	†	†	†	†
Major with a focus in STEM	STEMMAJ in (1, 2)	13.5	0.34	0.12	2.85	8.12
Attended more than one institution in 2017–18	STUDMULT>1	10.1	0.28	0.11	2.63	6.94
Has dependents other than a spouse	DEPANY=1	24.5	0.32	0.15	2.09	4.38
U.S. Armed Forces veteran	VETERAN=1	4.4	0.13	0.07	1.83	3.37
Summary statistics						
Minimum		†	†	†	0.55	0.30
25th percentile		†	†	†	1.57	2.47
Median		†	†	†	2.08	4.32
75th percentile		†	†	†	2.85	8.12
Maximum		†	†	†	4.30	18.46

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-4. Design effects for undergraduate students at public 4-year, non-doctorate-granting, primarily subbaccalaureate institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	60.0	0.88	0.44	2.00	4.01
Received any federal aid	TFEDAID>0	51.9	0.84	0.45	1.87	3.49
Received any state grant aid	STGTAMT>0	28.2	1.66	0.41	4.09	16.71
Received any institution grant aid	INGRTAMT>0	8.5	0.40	0.25	1.61	2.58
Received any work-study aid	TOTWKST>0	5.2	1.15	0.20	5.73	32.88
Received a Pell Grant	PELLAMT>0	44.9	1.01	0.45	2.25	5.06
Received a Direct Loan	STAFFAMT>0	21.4	0.85	0.37	2.30	5.29
Subsidized	STAFSUB>0	18.7	0.68	0.35	1.94	3.77
Unsubsidized	STAFUNSB>0	16.4	0.83	0.33	2.49	6.22
Married	SMARITAL=2	12.7	0.59	0.30	1.97	3.89
U.S. citizen	CITIZEN2=1	90.4	0.50	0.27	1.88	3.52
Enrolled exclusively full time	ATTNPTRN=1	24.4	1.03	0.39	2.66	7.10
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	79.8	0.90	0.36	2.49	6.21
Received any employer aid	EMPLYAM3>0	0.1	0.04	0.03	1.27	1.61
Enrolled in a bachelor's degree program	UGDEG=3	12.5	2.17	0.30	7.28	52.98
Major with a focus in STEM	STEMMAJ in (1, 2)	12.4	0.80	0.30	2.70	7.31
Attended more than one institution in 2017–18	STUDMULT>1	13.5	1.22	0.31	3.97	15.75
Has dependents other than a spouse	DEPANY=1	22.5	0.66	0.38	1.75	3.05
U.S. Armed Forces veteran	VETERAN=1	4.2	0.26	0.18	1.45	2.09
Summary statistics						
Minimum		†	†	†	1.27	1.61
25th percentile		†	†	†	1.87	3.49
Median		†	†	†	2.25	5.06
75th percentile		†	†	†	2.70	7.31
Maximum		†	†	†	7.28	52.98

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-5. Design effects for undergraduate students at public 4-year, non-doctorate-granting, primarily baccalaureate institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	77.1	1.13	0.32	3.55	12.57
Received any federal aid	TFEDAID>0	66.7	1.31	0.36	3.67	13.46
Received any state grant aid	STGTAMT>0	33.1	1.48	0.36	4.15	17.25
Received any institution grant aid	INGRTAMT>0	23.2	1.07	0.32	3.35	11.19
Received any work-study aid	TOTWKST>0	7.8	0.74	0.20	3.62	13.14
Received a Pell Grant	PELLAMT>0	47.4	1.42	0.38	3.74	14.00
Received a Direct Loan	STAFFAMT>0	47.7	1.25	0.38	3.30	10.86
Subsidized	STAFSUB>0	40.4	1.09	0.37	2.92	8.53
Unsubsidized	STAFUNSB>0	38.4	1.14	0.37	3.09	9.54
Married	SMARITAL=2	9.2	0.58	0.22	2.64	6.97
U.S. citizen	CITIZEN2=1	94.5	0.61	0.17	3.54	12.50
Enrolled exclusively full time	ATTNPTRN=1	49.9	1.53	0.38	4.04	16.29
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	49.6	1.45	0.38	3.84	14.75
Received any employer aid	EMPLYAM3>0	0.3	0.11	0.04	2.51	6.28
Enrolled in a bachelor's degree program	UGDEG=3	90.9	0.60	0.22	2.74	7.52
Major with a focus in STEM	STEMMAJ in (1, 2)	28.7	1.37	0.34	4.01	16.07
Attended more than one institution in 2017–18	STUDMULT>1	14.5	1.03	0.27	3.86	14.87
Has dependents other than a spouse	DEPANY=1	14.3	0.82	0.27	3.10	9.62
U.S. Armed Forces veteran	VETERAN=1	3.3	0.41	0.14	3.00	9.02
Summary statistics						
Minimum		†	†	†	2.51	6.28
25th percentile		†	†	†	3.00	9.02
Median		†	†	†	3.54	12.50
75th percentile		†	†	†	3.84	14.75
Maximum		†	†	†	4.15	17.25

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-6. Design effects for undergraduate students at public 4-year, doctorate-granting institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	75.0	0.33	0.16	2.08	4.32
Received any federal aid	TFEDAID>0	62.1	0.33	0.18	1.89	3.57
Received any state grant aid	STGTAMT>0	31.7	0.51	0.17	2.98	8.87
Received any institution grant aid	INGRTAMT>0	33.6	0.40	0.17	2.32	5.38
Received any work-study aid	TOTWKST>0	6.2	0.27	0.09	3.13	9.80
Received a Pell Grant	PELLAMT>0	40.0	0.36	0.18	2.00	4.01
Received a Direct Loan	STAFFAMT>0	49.0	0.40	0.18	2.20	4.84
Subsidized	STAFSUB>0	41.2	0.28	0.18	1.56	2.45
Unsubsidized	STAFUNSB>0	40.9	0.30	0.18	1.70	2.88
Married	SMARITAL=2	5.9	0.23	0.09	2.64	6.99
U.S. citizen	CITIZEN2=1	92.3	0.30	0.10	3.05	9.32
Enrolled exclusively full time	ATTNPTRN=1	50.1	0.46	0.18	2.54	6.46
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	43.3	0.43	0.18	2.36	5.55
Received any employer aid	EMPLYAM3>0	0.2	0.03	0.02	1.72	2.95
Enrolled in a bachelor's degree program	UGDEG=3	94.7	0.21	0.08	2.60	6.75
Major with a focus in STEM	STEMMAJ in (1, 2)	37.8	0.44	0.18	2.48	6.14
Attended more than one institution in 2017–18	STUDMULT>1	11.6	0.28	0.12	2.41	5.80
Has dependents other than a spouse	DEPANY=1	8.1	0.33	0.10	3.36	11.27
U.S. Armed Forces veteran	VETERAN=1	2.9	0.13	0.06	2.12	4.48
Summary statistics						
Minimum		†	†	†	1.56	2.45
25th percentile		†	†	†	2.00	4.01
Median		†	†	†	2.36	5.55
75th percentile		†	†	†	2.64	6.99
Maximum		†	†	†	3.36	11.27

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-7. Design effects for undergraduate students at private nonprofit less-than-4-year institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	89.7	2.84	1.01	2.82	7.97
Received any federal aid	TFEDAID>0	78.5	2.36	1.36	1.74	3.01
Received any state grant aid	STGTAMT>0	20.8	9.24	1.34	6.88	47.39
Received any institution grant aid	INGRTAMT>0	27.3	13.43	1.47	9.11	83.02
Received any work-study aid	TOTWKST>0	1.7	1.25	0.43	2.91	8.44
Received a Pell Grant	PELLAMT>0	69.2	2.13	1.53	1.40	1.95
Received a Direct Loan	STAFFAMT>0	62.1	4.06	1.61	2.53	6.38
Subsidized	STAFSUB>0	58.2	3.62	1.63	2.22	4.93
Unsubsidized	STAFUNSB>0	57.9	4.01	1.63	2.46	6.03
Married	SMARITAL=2	14.9	3.08	1.18	2.61	6.81
U.S. citizen	CITIZEN2=1	88.0	4.28	1.08	3.97	15.78
Enrolled exclusively full time	ATTNPTRN=1	77.3	12.27	1.39	8.85	78.24
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	71.4	5.42	1.50	3.63	13.15
Received any employer aid	EMPLYAM3>0	0.1	0.20	0.10	2.08	4.32
Enrolled in a bachelor's degree program	UGDEG=3	†	†	†	†	†
Major with a focus in STEM	STEMMAJ in (1, 2)	2.6	2.30	0.53	4.35	18.91
Attended more than one institution in 2017–18	STUDMULT>1	17.0	7.64	1.24	6.14	37.72
Has dependents other than a spouse	DEPANY=1	30.6	8.43	1.53	5.52	30.52
U.S. Armed Forces veteran	VETERAN=1	8.7	6.01	0.93	6.45	41.60
Summary statistics						
Minimum		†	†	†	1.40	1.95
25th percentile		†	†	†	2.46	6.03
Median		†	†	†	3.27	10.80
75th percentile		†	†	†	6.14	37.72
Maximum		†	†	†	9.11	83.02

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-8. Design effects for undergraduate students at private nonprofit 4-year, non-doctorate-granting institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	83.4	0.86	0.25	3.40	11.57
Received any federal aid	TFEDAID>0	69.8	0.78	0.31	2.51	6.32
Received any state grant aid	STGTAMT>0	22.0	1.18	0.28	4.19	17.55
Received any institution grant aid	INGRTAMT>0	55.9	1.90	0.34	5.63	31.71
Received any work-study aid	TOTWKST>0	19.3	1.74	0.27	6.50	42.30
Received a Pell Grant	PELLAMT>0	43.9	0.38	0.34	1.13	1.28
Received a Direct Loan	STAFFAMT>0	57.8	0.53	0.33	1.60	2.55
Subsidized	STAFSUB>0	50.6	0.44	0.34	1.29	1.67
Unsubsidized	STAFUNSB>0	51.7	0.45	0.34	1.32	1.75
Married	SMARITAL=2	12.3	0.71	0.22	3.20	10.26
U.S. citizen	CITIZEN2=1	92.5	0.58	0.18	3.22	10.35
Enrolled exclusively full time	ATTNPTRN=1	68.3	1.90	0.32	6.03	36.30
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	43.4	1.46	0.34	4.34	18.83
Received any employer aid	EMPLYAM3>0	0.3	0.09	0.03	2.59	6.73
Enrolled in a bachelor's degree program	UGDEG=3	87.3	1.80	0.23	7.99	63.79
Major with a focus in STEM	STEMMAJ in (1, 2)	23.8	1.24	0.29	4.30	18.52
Attended more than one institution in 2017–18	STUDMULT>1	10.4	1.44	0.21	6.95	48.32
Has dependents other than a spouse	DEPANY=1	21.2	1.63	0.28	5.89	34.74
U.S. Armed Forces veteran	VETERAN=1	3.3	0.48	0.12	3.98	15.87
Summary statistics						
Minimum		†	†	†	1.13	1.28
25th percentile		†	†	†	2.51	6.32
Median		†	†	†	3.98	15.87
75th percentile		†	†	†	5.89	34.74
Maximum		†	†	†	7.99	63.79

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-9. Design effects for undergraduate students at private nonprofit 4-year, doctorate-granting institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	79.3	1.37	0.27	5.10	25.99
Received any federal aid	TFEDAID>0	62.5	0.85	0.32	2.65	7.01
Received any state grant aid	STGTAMT>0	20.6	1.11	0.27	4.14	17.13
Received any institution grant aid	INGRTAMT>0	57.9	2.46	0.33	7.53	56.66
Received any work-study aid	TOTWKST>0	19.3	1.25	0.26	4.77	22.72
Received a Pell Grant	PELLAMT>0	35.8	0.37	0.32	1.18	1.38
Received a Direct Loan	STAFFAMT>0	53.8	0.64	0.33	1.93	3.73
Subsidized	STAFSUB>0	47.6	0.50	0.33	1.50	2.26
Unsubsidized	STAFUNSB>0	47.9	0.50	0.33	1.51	2.28
Married	SMARITAL=2	9.1	0.70	0.19	3.67	13.45
U.S. citizen	CITIZEN2=1	89.7	0.64	0.20	3.20	10.21
Enrolled exclusively full time	ATTNPTRN=1	60.4	1.21	0.32	3.74	13.99
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	39.9	1.22	0.32	3.77	14.25
Received any employer aid	EMPLYAM3>0	0.4	0.16	0.04	4.13	17.08
Enrolled in a bachelor's degree program	UGDEG=3	92.1	1.29	0.18	7.25	52.53
Major with a focus in STEM	STEMMAJ in (1, 2)	30.8	1.36	0.31	4.44	19.75
Attended more than one institution in 2017–18	STUDMULT>1	8.5	0.52	0.18	2.81	7.92
Has dependents other than a spouse	DEPANY=1	15.2	1.10	0.24	4.61	21.23
U.S. Armed Forces veteran	VETERAN=1	4.0	0.55	0.13	4.28	18.34
Summary statistics						
Minimum		†	†	†	1.18	1.38
25th percentile		†	†	†	2.65	7.01
Median		†	†	†	3.77	14.25
75th percentile		†	†	†	4.61	21.23
Maximum		†	†	†	7.53	56.66

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table M-10. Design effects for undergraduate students at private for-profit less-than-2-year institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	88.0	3.29	0.51	6.46	41.67
Received any federal aid	TFEDAID>0	86.5	3.52	0.54	6.56	43.09
Received any state grant aid	STGTAMT>0	1.6	0.73	0.20	3.75	14.07
Received any institution grant aid	INGRTAMT>0	6.4	2.92	0.38	7.59	57.57
Received any work-study aid	TOTWKST>0	0.2	0.15	0.07	2.06	4.24
Received a Pell Grant	PELLAMT>0	80.8	3.57	0.62	5.78	33.42
Received a Direct Loan	STAFFAMT>0	64.1	3.37	0.75	4.48	20.09
Subsidized	STAFSUB>0	58.4	2.94	0.77	3.80	14.45
Unsubsidized	STAFUNSB>0	60.0	3.11	0.77	4.05	16.36
Married	SMARITAL=2	11.0	1.71	0.49	3.47	12.06
U.S. citizen	CITIZEN2=1	88.0	5.30	0.51	10.40	108.17
Enrolled exclusively full time	ATTNPTRN=1	77.9	7.79	0.65	11.98	143.48
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	78.6	2.53	0.64	3.93	15.42
Received any employer aid	EMPLYAM3>0	#	#	#	#	#
Enrolled in a bachelor's degree program	UGDEG=3	†	†	†	†	†
Major with a focus in STEM	STEMMAJ in (1, 2)	2.6	1.73	0.25	6.96	48.48
Attended more than one institution in 2017–18	STUDMULT>1	23.0	5.90	0.66	8.94	79.91
Has dependents other than a spouse	DEPANY=1	39.5	2.42	0.77	3.16	9.97
U.S. Armed Forces veteran	VETERAN=1	3.3	0.79	0.28	2.82	7.96
Summary statistics						
Minimum		†	†	†	2.06	#
25th percentile		†	†	†	3.75	14.07
Median		†	†	†	4.48	18.23
75th percentile		†	†	†	6.96	48.48
Maximum		†	†	†	11.98	143.48

† Not applicable.

# Rounds to zero.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-11. Design effects for undergraduate students at private for-profit 2-year institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	85.8	2.59	0.62	4.20	17.68
Received any federal aid	TFEDAID>0	81.8	3.81	0.68	5.59	31.25
Received any state grant aid	STGTAMT>0	18.6	8.35	0.69	12.14	147.45
Received any institution grant aid	INGRTAMT>0	15.5	8.99	0.64	14.06	197.68
Received any work-study aid	TOTWKST>0	5.4	3.67	0.40	9.19	84.45
Received a Pell Grant	PELLAMT>0	73.5	4.57	0.78	5.85	34.28
Received a Direct Loan	STAFFAMT>0	61.5	2.44	0.86	2.84	8.05
Subsidized	STAFSUB>0	56.9	2.03	0.87	2.32	5.38
Unsubsidized	STAFUNSB>0	57.1	2.19	0.87	2.50	6.27
Married	SMARITAL=2	12.3	1.87	0.58	3.22	10.39
U.S. citizen	CITIZEN2=1	92.2	3.15	0.47	6.66	44.33
Enrolled exclusively full time	ATTNPTRN=1	66.5	6.93	0.83	8.32	69.24
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	76.5	2.87	0.75	3.83	14.70
Received any employer aid	EMPLYAM3>0	0.2	0.18	0.09	2.13	4.56
Enrolled in a bachelor's degree program	UGDEG=3	†	†	†	†	†
Major with a focus in STEM	STEMMAJ in (1, 2)	8.0	2.59	0.48	5.40	29.17
Attended more than one institution in 2017–18	STUDMULT>1	42.5	7.88	0.87	9.02	81.43
Has dependents other than a spouse	DEPANY=1	38.8	3.61	0.86	4.20	17.62
U.S. Armed Forces veteran	VETERAN=1	4.9	1.11	0.38	2.91	8.48
Summary statistics						
Minimum		†	†	†	2.13	4.56
25th percentile		†	†	†	2.91	8.48
Median		†	†	†	4.80	23.43
75th percentile		†	†	†	8.32	69.24
Maximum		†	†	†	14.06	197.68

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-12. Design effects for undergraduate students at private for-profit 4-year institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	85.7	3.40	0.43	7.93	62.89
Received any federal aid	TFEDAID>0	74.1	4.93	0.54	9.17	84.11
Received any state grant aid	STGTAMT>0	4.2	1.27	0.25	5.13	26.27
Received any institution grant aid	INGRTAMT>0	32.0	3.32	0.57	5.80	33.67
Received any work-study aid	TOTWKST>0	1.3	0.56	0.14	4.10	16.79
Received a Pell Grant	PELLAMT>0	60.4	4.83	0.60	8.05	64.88
Received a Direct Loan	STAFFAMT>0	62.6	4.73	0.59	7.98	63.62
Subsidized	STAFSUB>0	58.2	4.66	0.61	7.70	59.34
Unsubsidized	STAFUNSB>0	59.1	4.73	0.60	7.84	61.45
Married	SMARITAL=2	24.6	1.58	0.53	2.99	8.95
U.S. citizen	CITIZEN2=1	93.4	1.95	0.30	6.41	41.07
Enrolled exclusively full time	ATTNPTRN=1	61.2	3.70	0.60	6.19	38.36
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	74.0	3.63	0.54	6.75	45.59
Received any employer aid	EMPLYAM3>0	3.2	0.52	0.21	2.41	5.79
Enrolled in a bachelor's degree program	UGDEG=3	75.0	3.19	0.53	6.01	36.09
Major with a focus in STEM	STEMMAJ in (1, 2)	12.7	1.86	0.41	4.55	20.67
Attended more than one institution in 2017–18	STUDMULT>1	23.2	4.34	0.52	8.39	70.40
Has dependents other than a spouse	DEPANY=1	48.7	4.21	0.61	6.86	47.04
U.S. Armed Forces veteran	VETERAN=1	9.7	1.28	0.36	3.53	12.46
Summary statistics						
Minimum		†	†	†	2.41	5.79
25th percentile		†	†	†	4.55	20.67
Median		†	†	†	6.41	41.07
75th percentile		†	†	†	7.93	62.89
Maximum		†	†	†	9.17	84.11

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-13. Design effects for dependent undergraduate students: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	72.5	0.32	0.12	2.73	7.46
Received any federal aid	TFEDAID>0	59.7	0.29	0.13	2.26	5.11
Received any state grant aid	STGTAMT>0	29.6	0.32	0.12	2.70	7.29
Received any institution grant aid	INGRTAMT>0	32.8	0.43	0.12	3.49	12.20
Received any work-study aid	TOTWKST>0	9.5	0.27	0.08	3.59	12.90
Received a Pell Grant	PELLAMT>0	39.4	0.29	0.13	2.26	5.10
Received a Direct Loan	STAFFAMT>0	39.4	0.28	0.13	2.24	5.03
Subsidized	STAFSUB>0	32.5	0.25	0.12	2.09	4.36
Unsubsidized	STAFUNSB>0	33.3	0.25	0.12	2.01	4.04
Married	SMARITAL=2	†	†	†	†	†
U.S. citizen	CITIZEN2=1	91.7	0.23	0.07	3.17	10.07
Enrolled exclusively full time	ATTNPTRN=1	51.6	0.46	0.13	3.55	12.61
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	47.1	0.36	0.13	2.79	7.79
Received any employer aid	EMPLYAM3>0	0.1	0.02	0.01	1.85	3.43
Enrolled in a bachelor's degree program	UGDEG=3	60.6	0.51	0.13	4.01	16.07
Major with a focus in STEM	STEMMAJ in (1, 2)	27.9	0.40	0.12	3.48	12.11
Attended more than one institution in 2017–18	STUDMULT>1	12.0	0.27	0.08	3.17	10.03
Has dependents other than a spouse	DEPANY=1	†	†	†	†	†
U.S. Armed Forces veteran	VETERAN=1	0.3	0.02	0.01	1.79	3.21
Summary statistics						
Minimum		†	†	†	1.79	3.21
25th percentile		†	†	†	2.24	5.03
Median		†	†	†	2.73	7.46
75th percentile		†	†	†	3.48	12.11
Maximum		†	†	†	4.01	16.07

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-14. Design effects for independent undergraduate students: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	66.9	0.52	0.15	3.45	11.92
Received any federal aid	TFEDAID>0	58.4	0.46	0.16	2.91	8.46
Received any state grant aid	STGTAMT>0	17.8	0.36	0.12	2.88	8.32
Received any institution grant aid	INGRTAMT>0	14.7	0.59	0.11	5.14	26.44
Received any work-study aid	TOTWKST>0	3.0	0.28	0.05	5.06	25.57
Received a Pell Grant	PELLAMT>0	49.7	0.50	0.16	3.13	9.81
Received a Direct Loan	STAFFAMT>0	37.6	0.43	0.16	2.74	7.49
Subsidized	STAFSUB>0	34.8	0.44	0.15	2.87	8.26
Unsubsidized	STAFUNSB>0	31.9	0.46	0.15	3.10	9.60
Married	SMARITAL=2	25.8	0.33	0.14	2.32	5.38
U.S. citizen	CITIZEN2=1	92.3	0.32	0.09	3.71	13.73
Enrolled exclusively full time	ATTNPTRN=1	31.5	0.64	0.15	4.27	18.24
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	81.3	0.58	0.13	4.64	21.57
Received any employer aid	EMPLYAM3>0	0.7	0.07	0.03	2.63	6.93
Enrolled in a bachelor's degree program	UGDEG=3	40.7	0.52	0.16	3.30	10.89
Major with a focus in STEM	STEMMAJ in (1, 2)	17.0	0.37	0.12	3.04	9.23
Attended more than one institution in 2017–18	STUDMULT>1	13.1	0.70	0.11	6.45	41.64
Has dependents other than a spouse	DEPANY=1	46.3	0.57	0.16	3.55	12.60
U.S. Armed Forces veteran	VETERAN=1	9.1	0.27	0.09	2.95	8.72
Summary statistics						
Minimum		†	†	†	2.32	5.38
25th percentile		†	†	†	2.88	8.32
Median		†	†	†	3.13	9.81
75th percentile		†	†	†	4.27	18.24
Maximum		†	†	†	6.45	41.64

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-15. Design effects for low-income undergraduate students: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	87.6	0.34	0.15	2.24	5.03
Received any federal aid	TFEDAID>0	84.2	0.40	0.17	2.39	5.73
Received any state grant aid	STGTAMT>0	37.4	0.70	0.22	3.16	10.02
Received any institution grant aid	INGRTAMT>0	23.9	0.63	0.20	3.20	10.23
Received any work-study aid	TOTWKST>0	9.7	0.54	0.14	3.98	15.84
Received a Pell Grant	PELLAMT>0	82.4	0.44	0.18	2.54	6.45
Received a Direct Loan	STAFFAMT>0	43.3	0.58	0.23	2.54	6.47
Subsidized	STAFSUB>0	41.8	0.53	0.23	2.35	5.53
Unsubsidized	STAFUNSB>0	34.8	0.56	0.22	2.56	6.57
Married	SMARITAL=2	3.7	0.22	0.09	2.57	6.59
U.S. citizen	CITIZEN2=1	92.6	0.47	0.12	3.92	15.38
Enrolled exclusively full time	ATTNPTRN=1	44.7	0.73	0.23	3.20	10.21
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	65.2	0.64	0.22	2.92	8.50
Received any employer aid	EMPLYAM3>0	0.1	0.05	0.01	3.21	10.30
Enrolled in a bachelor's degree program	UGDEG=3	45.8	0.70	0.23	3.06	9.36
Major with a focus in STEM	STEMMAJ in (1, 2)	22.7	0.60	0.19	3.11	9.67
Attended more than one institution in 2017–18	STUDMULT>1	15.2	0.72	0.16	4.38	19.16
Has dependents other than a spouse	DEPANY=1	13.8	0.41	0.16	2.57	6.61
U.S. Armed Forces veteran	VETERAN=1	3.1	0.20	0.08	2.48	6.14
Summary statistics						
Minimum		†	†	†	2.24	5.03
25th percentile		†	†	†	2.54	6.45
Median		†	†	†	2.92	8.50
75th percentile		†	†	†	3.20	10.23
Maximum		†	†	†	4.38	19.16

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-16. Design effects for middle-income undergraduate students: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	67.6	0.41	0.13	3.06	9.33
Received any federal aid	TFEDAID>0	56.7	0.40	0.14	2.83	8.01
Received any state grant aid	STGTAMT>0	25.5	0.31	0.12	2.52	6.37
Received any institution grant aid	INGRTAMT>0	25.2	0.41	0.12	3.35	11.24
Received any work-study aid	TOTWKST>0	7.0	0.25	0.07	3.37	11.37
Received a Pell Grant	PELLAMT>0	41.2	0.39	0.14	2.76	7.63
Received a Direct Loan	STAFFAMT>0	38.7	0.34	0.14	2.49	6.19
Subsidized	STAFSUB>0	35.8	0.33	0.14	2.40	5.75
Unsubsidized	STAFUNSB>0	32.3	0.36	0.13	2.71	7.34
Married	SMARITAL=2	5.6	0.22	0.07	3.35	11.25
U.S. citizen	CITIZEN2=1	91.7	0.21	0.08	2.71	7.35
Enrolled exclusively full time	ATTNPTRN=1	41.9	0.50	0.14	3.54	12.51
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	62.8	0.42	0.14	3.02	9.14
Received any employer aid	EMPLYAM3>0	0.4	0.06	0.02	3.17	10.02
Enrolled in a bachelor's degree program	UGDEG=3	49.6	0.54	0.14	3.79	14.33
Major with a focus in STEM	STEMMAJ in (1, 2)	22.3	0.33	0.12	2.82	7.94
Attended more than one institution in 2017–18	STUDMULT>1	11.7	0.45	0.09	4.95	24.51
Has dependents other than a spouse	DEPANY=1	18.3	0.36	0.11	3.26	10.63
U.S. Armed Forces veteran	VETERAN=1	4.1	0.16	0.06	2.88	8.29
Summary statistics						
Minimum		†	†	†	2.40	5.75
25th percentile		†	†	†	2.71	7.35
Median		†	†	†	3.02	9.14
75th percentile		†	†	†	3.35	11.25
Maximum		†	†	†	4.95	24.51

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-17. Design effects for high-income undergraduate students: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	58.8	0.65	0.18	3.62	13.10
Received any federal aid	TFEDAID>0	40.7	0.53	0.18	2.94	8.62
Received any state grant aid	STGTAMT>0	10.7	0.30	0.11	2.61	6.82
Received any institution grant aid	INGRTAMT>0	25.6	0.64	0.16	3.98	15.81
Received any work-study aid	TOTWKST>0	3.3	0.18	0.07	2.79	7.80
Received a Pell Grant	PELLAMT>0	13.3	0.55	0.12	4.44	19.67
Received a Direct Loan	STAFFAMT>0	34.3	0.49	0.17	2.84	8.05
Subsidized	STAFSUB>0	21.3	0.56	0.15	3.73	13.90
Unsubsidized	STAFUNSB>0	31.4	0.48	0.17	2.80	7.81
Married	SMARITAL=2	28.5	0.49	0.17	2.96	8.79
U.S. citizen	CITIZEN2=1	92.0	0.25	0.10	2.48	6.17
Enrolled exclusively full time	ATTNPTRN=1	43.5	0.59	0.18	3.22	10.38
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	56.6	0.47	0.18	2.61	6.82
Received any employer aid	EMPLYAM3>0	0.5	0.07	0.03	2.47	6.08
Enrolled in a bachelor's degree program	UGDEG=3	62.4	0.48	0.18	2.73	7.45
Major with a focus in STEM	STEMMAJ in (1, 2)	25.3	0.48	0.16	3.03	9.20
Attended more than one institution in 2017–18	STUDMULT>1	11.4	0.39	0.12	3.32	11.05
Has dependents other than a spouse	DEPANY=1	28.7	0.63	0.17	3.79	14.39
U.S. Armed Forces veteran	VETERAN=1	5.0	0.25	0.08	3.09	9.56
Summary statistics						
Minimum		†	†	†	2.47	6.08
25th percentile		†	†	†	2.73	7.45
Median		†	†	†	2.96	8.79
75th percentile		†	†	†	3.62	13.10
Maximum		†	†	†	4.44	19.67

† Not applicable.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table M-18. Median design effects for undergraduate students overall and public 2-year and public 4-year institutions, by state: 2017–18**

State	All undergraduates	Public 2-year	Public 4-year
<b>All institutions</b>	<b>11.25</b>	<b>4.32</b>	<b>7.04</b>
Alabama	‡	1.43	1.50
Alaska	‡	‡	0.83
Arizona	2.89	0.93	1.56
Arkansas	5.24	5.53	4.54
California	2.91	1.88	1.84
Colorado	4.38	0.84	0.79
Connecticut	‡	‡	‡
Delaware	3.15	‡	0.90
District of Columbia	‡	‡	‡
Florida	4.98	2.82	0.91
Georgia	‡	‡	2.77
Hawaii	3.36	0.87	1.67
Idaho	‡	‡	‡
Illinois	2.27	1.62	1.12
Indiana	6.75	1.09	4.32
Iowa	3.65	0.82	0.26
Kansas	6.84	3.41	0.76
Kentucky	1.90	1.37	1.22
Louisiana	1.75	2.15	1.00
Maine	‡	‡	‡
Maryland	‡	‡	1.17
Massachusetts	3.60	2.10	1.15
Michigan	1.31	0.41	0.82
Minnesota	3.22	1.07	1.09
Mississippi	5.31	1.40	2.53
Missouri	4.47	2.86	2.52
Montana	‡	‡	1.76
Nebraska	‡	0.91	‡
Nevada	‡	0.19	0.88
New Hampshire	‡	‡	3.17
New Jersey	2.38	0.96	1.04
New Mexico	‡	8.82	8.57
New York	4.38	0.96	1.43
North Carolina	5.85	11.56	1.00
North Dakota	‡	‡	49.23
Ohio	3.60	0.76	2.52
Oklahoma	‡	0.57	0.54
Oregon	‡	1.92	‡
Pennsylvania	10.54	0.92	1.39
Puerto Rico	‡	‡	‡
Rhode Island	‡	‡	1.80
South Carolina	‡	‡	3.38
South Dakota	‡	‡	1.57
Tennessee	4.18	2.72	7.16
Texas	2.34	1.55	2.01
Utah	2.15	0.25	0.68
Vermont	5.41	0.34	1.06

See notes at end of table.

**Table M-18. Median design effects for undergraduate students overall and public 2-year and public 4-year institutions, by state: 2017–18—Continued**

State	All undergraduates	Public 2-year	Public 4-year
Virginia	1.91	1.11	1.02
Washington	‡	‡	0.88
West Virginia	‡	‡	0.61
Wisconsin	2.04	1.11	1.07
Wyoming	‡	6.32	1.01

‡ Reporting standards not met (nonrepresentative).

NOTE: 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 were practical). For the purposes of this table, Puerto Rico and District of Columbia are referred to as “states.”

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-19. Design effects for all graduate students: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	57.8	0.49	0.34	1.46	2.12
Received any federal aid	TFEDAID>0	41.7	0.19	0.33	0.56	0.32
Received any state grant aid	STGTAMT>0	2.0	0.19	0.09	2.04	4.14
Received any institution grant aid	INGRTAMT>0	22.8	0.77	0.28	2.71	7.36
Received any work-study aid	TOTWKST>0	1.9	0.30	0.09	3.25	10.57
Received any assistantship	GRASTAMT>0	3.2	0.28	0.12	2.32	5.36
Received a Direct Unsubsidized Loan	STAFUNSB>0	40.4	#	0.33	#	#
Married	SMARITAL=2	25.7	0.57	0.30	1.91	3.65
U.S. citizen	CITIZEN2=1	84.0	0.51	0.25	2.05	4.22
Enrolled exclusively full time	ATTNPTRN=1	43.4	1.31	0.34	3.89	15.10
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	64.4	0.78	0.32	2.42	5.83
Received any employer aid	EMPLYAM3>0	0.5	0.17	0.05	3.42	11.68
Enrolled in a master's degree program	GRADDEG=1	70.3	0.65	0.31	2.11	4.43
Major with a focus in STEM	STEMMAJ in (1, 2)	21.4	0.64	0.28	2.29	5.26
Attended more than one institution in 2017–18	STUDMULT>1	5.4	0.41	0.15	2.65	7.04
Has dependents other than a spouse	DEPANY=1	32.1	0.71	0.32	2.25	5.08
U.S. Armed Forces veteran	VETERAN=1	5.3	0.22	0.15	1.41	2.00
Summary statistics						
Minimum		†	†	†	#	#
25th percentile		†	†	†	1.91	3.65
Median		†	†	†	2.25	5.08
75th percentile		†	†	†	2.65	7.04
Maximum		†	†	†	3.89	15.10

† Not applicable.

# Rounds to zero.

<sup>1</sup> DEFT is the square root of the survey design effect (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).

<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-20. Design effects for graduate students at public 4-year institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	53.5	0.73	0.53	1.38	1.90
Received any federal aid	TFEDAID>0	35.5	0.29	0.51	0.56	0.32
Received any state grant aid	STGTAMT>0	3.2	0.38	0.19	2.03	4.11
Received any institution grant aid	INGRTAMT>0	22.5	0.89	0.45	2.00	4.01
Received any work-study aid	TOTWKST>0	1.3	0.30	0.12	2.47	6.10
Received any assistantship	GRASTAMT>0	4.9	0.49	0.23	2.15	4.61
Received a Direct Unsubsidized Loan	STAFUNSB>0	34.7	#	0.51	#	#
Married	SMARITAL=2	23.8	0.80	0.45	1.77	3.15
U.S. citizen	CITIZEN2=1	83.0	0.75	0.40	1.88	3.54
Enrolled exclusively full time	ATTNPTRN=1	38.4	1.07	0.52	2.06	4.24
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	65.0	1.00	0.51	1.97	3.89
Received any employer aid	EMPLYAM3>0	0.1	0.13	0.04	3.17	10.07
Enrolled in a master's degree program	GRADDEG=1	68.7	0.83	0.49	1.68	2.84
Major with a focus in STEM	STEMMAJ in (1, 2)	26.3	0.80	0.47	1.71	2.93
Attended more than one institution in 2017–18	STUDMULT>1	5.0	0.37	0.23	1.59	2.52
Has dependents other than a spouse	DEPANY=1	26.0	0.94	0.47	2.00	4.01
U.S. Armed Forces veteran	VETERAN=1	3.8	0.20	0.20	0.97	0.95
Summary statistics						
Minimum		†	†	†	#	#
25th percentile		†	†	†	1.59	2.52
Median		†	†	†	1.88	3.54
75th percentile		†	†	†	2.03	4.11
Maximum		†	†	†	3.17	10.07

† Not applicable.

# Rounds to zero.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-21. Design effects for graduate students at private nonprofit 4-year institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	57.6	0.79	0.53	1.49	2.23
Received any federal aid	TFEDAID>0	43.4	0.25	0.53	0.47	0.22
Received any state grant aid	STGTAMT>0	1.1	0.24	0.11	2.20	4.85
Received any institution grant aid	INGRTAMT>0	21.3	1.31	0.44	3.00	8.99
Received any work-study aid	TOTWKST>0	2.9	0.63	0.18	3.53	12.46
Received any assistantship	GRASTAMT>0	2.2	0.33	0.16	2.12	4.51
Received a Direct Unsubsidized Loan	STAFUNSB>0	42.0	#	0.53	#	#
Married	SMARITAL=2	24.1	0.83	0.46	1.81	3.29
U.S. citizen	CITIZEN2=1	82.9	0.80	0.40	1.99	3.97
Enrolled exclusively full time	ATTNPTRN=1	43.6	1.61	0.53	3.05	9.30
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	62.7	1.25	0.51	2.44	5.93
Received any employer aid	EMPLYAM3>0	0.3	0.09	0.06	1.54	2.36
Enrolled in a master's degree program	GRADDEG=1	70.9	1.11	0.48	2.30	5.29
Major with a focus in STEM	STEMMAJ in (1, 2)	18.8	1.18	0.42	2.84	8.05
Attended more than one institution in 2017–18	STUDMULT>1	4.7	0.58	0.22	2.56	6.56
Has dependents other than a spouse	DEPANY=1	31.6	1.15	0.49	2.32	5.36
U.S. Armed Forces veteran	VETERAN=1	4.5	0.28	0.22	1.27	1.62
Summary statistics						
Minimum		†	†	†	#	#
25th percentile		†	†	†	1.54	2.36
Median		†	†	†	2.20	4.85
75th percentile		†	†	†	2.56	6.56
Maximum		†	†	†	3.53	12.46

† Not applicable.

# Rounds to zero.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table M-22. Design effects for graduate students at private for-profit 4-year institutions: 2017–18**

Variable	Defined as	Percent estimate	Design standard error	Simple random sample standard error	DEFT <sup>1</sup>	DEFF <sup>2</sup>
Received any aid	TOTAID_AC>0	78.6	1.02	0.64	1.59	2.52
Received any federal aid	TFEDAID>0	63.4	0.52	0.75	0.69	0.47
Received any state grant aid	STGTAMT>0	0.1	0.03	0.05	0.64	0.40
Received any institution grant aid	INGRTAMT>0	30.5	2.67	0.72	3.71	13.75
Received any work-study aid	TOTWKST>0	0.5	0.23	0.11	2.10	4.41
Received any assistantship	GRASTAMT>0	0.2	0.07	0.07	0.98	0.96
Received a Direct Unsubsidized Loan	STAFUNSB>0	60.4	#	0.77	#	#
Married	SMARITAL=2	41.4	3.15	0.77	4.08	16.65
U.S. citizen	CITIZEN2=1	93.4	1.09	0.39	2.79	7.81
Enrolled exclusively full time	ATTNPTRN=1	65.6	8.78	0.74	11.80	139.28
Enrolled part time or part year	ATTNSTAT IN (3, 4, 5, 6)	68.8	3.35	0.73	4.61	21.28
Received any employer aid	EMPLYAM3>0	3.3	1.42	0.28	5.08	25.77
Enrolled in a master's degree program	GRADDEG=1	75.0	1.81	0.68	2.67	7.12
Major with a focus in STEM	STEMMAJ in (1, 2)	10.0	0.96	0.47	2.05	4.22
Attended more than one institution in 2017–18	STUDMULT>1	10.9	2.66	0.49	5.46	29.83
Has dependents other than a spouse	DEPANY=1	62.6	2.94	0.76	3.88	15.07
U.S. Armed Forces veteran	VETERAN=1	15.9	1.63	0.57	2.84	8.09
Summary statistics						
Minimum		†	†	†	#	#
25th percentile		†	†	†	1.59	2.52
Median		†	†	†	2.79	7.81
75th percentile		†	†	†	4.08	16.65
Maximum		†	†	†	11.80	139.28

† Not applicable.

# Rounds to zero.

<sup>1</sup> DEFT is the square root of the survey design effect (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).<sup>2</sup> 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: STEM = science, technology, engineering, and mathematics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

## Appendix N. Imputations

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**Table N-1. Mean values of key continuous variables before and after imputation: 2017–18**

<b>Variable</b>	<b>Variable label</b>	<b>Mean before imputation</b>	<b>Mean after imputation</b>	<b>Difference</b>	<b>Percent relative difference</b>
DEPINC	Dependent students: Parents' income	74,064.73	84,312.26	-10,247.5*	-12.15
INDEPINC	Independent students: student and spouse's income	32,669.71	35,740.16	-3,070.45*	-8.59

\*  $p < .05$ .

NOTE: Means were computed using the NPSAS:18-AC final analysis weight. Cases with legitimate skips for the item were not included in the estimated means. The difference was computed as the mean before imputation minus the mean after imputation. The percent relative difference was computed as the difference divided by the mean after imputation and then multiplied by 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).



**Table N-2. Mean values of key continuous variables before and after imputation, by state:  
2017–18**

Variable	Variable label	State	Mean before imputation	Mean after imputation	Difference	Percent relative difference
STNDMRT	State grants based both on need and merit	United States	143.32	143.16	0.17	0.1
		Alabama	9.20	9.19	0.01	0.1
		Alaska	†	†	†	†
		Arizona	†	†	†	†
		Arkansas	†	†	†	†
		California	942.35	939.85	2.50	0.3
		Colorado	†	†	†	†
		Connecticut	53.12	53.12	0.00	0.0
		Delaware	12.01	12.01	0.00	0.0
		District of Columbia	†	†	†	†
		Florida	†	†	†	†
		Georgia	†	†	†	†
		Hawaii	37.36	37.36	0.00	0.0
		Idaho	100.03	100.03	0.00	0.0
		Illinois	†	†	†	†
		Indiana	24.02	24.02	0.00	0.0
		Iowa	8.92	8.92	0.00	0.0
		Kansas	3.60	3.60	0.00	0.0
		Kentucky	†	†	†	†
		Louisiana	†	†	†	†
		Maine	†	†	†	†
		Maryland	36.97	36.97	0.00	0.0
		Massachusetts	0.22	0.22	0.00	1.2
		Michigan	63.16	63.06	0.10	0.2
		Minnesota	0.99	0.99	0.00	0.2
		Mississippi	163.39	163.39	0.00	0.0
		Missouri	†	†	†	†
		Montana	†	†	†	†
		Nebraska	†	†	†	†
		Nevada	†	†	†	†
		New Hampshire	†	†	†	†
		New Jersey	1.26	1.26	0.00	0.0
		New Mexico	†	†	†	†
		New York	†	†	†	†
		North Carolina	†	†	†	†
		North Dakota	4.16	4.16	0.00	0.0
		Ohio	†	†	†	†
		Oklahoma	350.59	351.37	-0.77	-0.2
		Oregon	†	†	†	†
		Pennsylvania	6.87	6.87	0.00	0.0
		Puerto Rico	22.78	22.78	0.00	0.0
		Rhode Island	10.34	10.34	0.00	0.0
		South Carolina	†	†	†	†

See notes at end of table.

**Table N-2. Mean values of key continuous variables before and after imputation, by state:  
2017–18—Continued**

Variable	Variable label	State	Mean before imputation	Mean after imputation	Difference	Percent relative difference
STNDONLY	State need-based only grants	South Dakota	†	†	†	†
		Tennessee	79.39	79.39	0.00	0.0
		Texas	280.85	280.72	0.14	0.1
		Utah	10.38	10.38	0.00	0.0
		Vermont	†	†	†	†
		Virginia	73.64	73.64	0.00	0.0
		Washington	53.87	55.24	-1.37	-2.5
		West Virginia	230.29	230.27	0.01	0.0
		Wisconsin	†	†	†	†
		Wyoming	537.60	537.60	0.00	0.0
		United States	302.44	302.14	0.31	0.1
		Alabama	0.70	0.70	0.00	0.1
		Alaska	136.03	136.03	0.00	0.0
		Arizona	44.37	44.29	0.08	0.2
		Arkansas	23.66	23.66	0.00	0.0
		California	61.26	61.69	-0.43	-0.7
		Colorado	365.51	365.48	0.03	0.0
		Connecticut	2.40	2.40	0.00	0.0
		Delaware	114.66	114.66	0.00	0.0
		District of Columbia	11.04	11.04	0.00	0.0
		Florida	221.38	221.38	0.00	0.0
		Georgia	0.03	0.03	0.00	0.0
		Hawaii	†	†	†	†
		Idaho	7.50	7.50	0.00	0.0
		Illinois	434.14	434.14	0.00	0.0
		Indiana	872.66	872.64	0.02	0.0
		Iowa	215.71	215.71	0.00	0.0
		Kansas	76.76	76.76	0.00	0.0
		Kentucky	351.94	351.94	0.00	0.0
		Louisiana	111.62	111.62	0.00	0.0
		Maine	208.30	208.07	0.23	0.1
		Maryland	236.56	236.56	0.00	0.0
		Massachusetts	193.97	191.76	2.21	1.2
		Michigan	141.60	141.38	0.22	0.2
		Minnesota	507.92	506.93	0.99	0.2
		Mississippi	1.01	1.01	0.00	0.0
		Missouri	175.02	175.02	0.00	0.0
		Montana	0.43	0.43	0.00	0.0
		Nebraska	152.62	152.62	0.00	0.0
		Nevada	143.78	143.78	0.00	0.0
		New Hampshire	19.76	19.76	0.00	0.0
		New Jersey	1,040.07	1,040.07	0.00	0.0

See notes at end of table.

**Table N-2. Mean values of key continuous variables before and after imputation, by state:  
2017–18—Continued**

Variable	Variable label	State	Mean before imputation	Mean after imputation	Difference	Percent relative difference
		New Mexico	157.84	157.84	0.00	0.0
		New York	753.00	748.00	5.00	0.7
		North Carolina	719.65	719.44	0.20	0.0
		North Dakota	161.74	161.74	0.00	0.0
		Ohio	162.01	161.80	0.21	0.1
		Oklahoma	70.89	70.89	0.00	0.0
		Oregon	315.60	315.60	0.00	0.0
		Pennsylvania	567.54	567.54	0.00	0.0
		Puerto Rico	15.58	15.58	0.00	0.0
		Rhode Island	65.87	65.87	0.00	0.0
		South Carolina	258.12	258.12	0.00	0.0
		South Dakota	2.96	2.96	0.00	0.0
		Tennessee	45.31	45.31	-0.01	0.0
		Texas	365.25	365.32	-0.07	0.0
		Utah	6.61	6.61	0.00	0.0
		Vermont	370.23	370.23	0.00	0.0
		Virginia	725.44	725.44	0.00	0.0
		Washington	776.23	774.97	1.26	0.2
		West Virginia	24.57	24.57	0.00	0.0
		Wisconsin	362.66	362.66	0.00	0.0
		Wyoming	†	†	†	†

† Not applicable.

NOTE: Means were computed using the NPSAS:18-AC final analysis weight. Cases with legitimate skips for the item were not included in the estimated means. The difference was computed as the mean before imputation minus the mean after imputation. The percent relative difference was computed as the difference divided by the mean after imputation and then multiplied by 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table N-3. Percentage distributions of key categorical variables before and after imputation: 2017–18**

Variable	Variable label	Value	Label	Percent before imputation	Percent after imputation	Difference	Percent relative difference
DEPANY	Dependents: Has any dependents	0	No dependents	77.7	77.9	-0.26	-0.3
		1	Has dependents	22.3	22.1	0.26	1.2
LOCALRES	Residence while enrolled	1	On campus	21.1	18.6	2.54*	13.7
		2	Off campus	40.4	47.8	-7.40*	-15.5
		3	Living with parents	18.3	21.1	-2.82*	-13.4
		4	Attended more than one institution	20.2	12.5	7.69*	61.7
PINCOL	Dependent students: Number of family members in college	1	One	68.8	68.5	0.32	0.5
		2	Two	26.7	27.1	-0.37*	-1.4
		3	Three	4.0	4.0	0.01	0.2
		4	Four	0.5	0.4	0.05*	10.3
		5	Five	#	#	#	0.3
		6	Six or more	#	#	#	12.6
PMARITAL	Dependent students: Parents' marital status	1	Married/remarried	60.0	65.7	-5.69*	-8.7
		2	Single	11.8	9.7	2.07*	21.4
		3	Divorced/separated	24.8	21.6	3.20*	14.8
		4	Widowed	2.7	2.4	0.33*	14.0
		5	Unmarried and both parents living together	0.7	0.6	0.09*	14.0

# Rounds to zero.

\*  $p < .05$ .

NOTE: Distributions were computed using the NPSAS:18-AC final analysis weight. Cases with legitimate skips for the item are not included in the distributions. The difference is computed as the percentage before imputation minus the percentage after imputation. The percent relative difference is computed as the difference divided by the percentage after imputation and then multiplied by 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
AGE	Age as of 12/31/17	320,160	99.65	99.90	99.15	99.91	99.93	99.83	99.98	99.94	99.95	100.00	100.00	99.75
AGE_HSGRADYY	Age at high school graduation	318,810	76.99	40.30	83.90	83.59	80.62	81.01	93.34	68.50	58.16	85.00	48.87	57.55
AGE_PSECTYR	Age first enrolled in postsecondary education	320,160	84.58	62.74	87.54	87.82	81.91	81.87	64.74	85.99	88.08	63.31	78.19	83.88
AIDSECT	NPSAS institution sector (with multiple)	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
CAMPAMT	Federal campus-based aid (Perkins, SEOG, FWS)	320,160	96.78	100.00	96.66	96.10	97.68	96.49	99.90	96.98	95.13	99.93	98.05	99.76
CITIZEN2	Citizenship status	320,160	94.20	89.77	89.88	92.74	93.30	97.03	88.80	96.34	96.94	98.83	98.32	97.91
DEPANY	Dependents: Has any dependents	320,160	77.71	62.74	73.44	75.14	83.46	78.43	84.40	80.66	75.08	92.82	93.19	87.84
DEPCHILD	Dependents: Has dependent children	320,160	77.69	62.74	73.41	75.13	83.44	78.42	84.40	80.66	75.05	92.80	93.19	87.74
DEPCOL	Independent students: Number of dependents in college	119,370	72.26	51.96	66.41	64.48	73.08	69.87	77.77	78.96	73.89	86.26	90.53	83.25
DEPNUM	Dependents: Has any dependents (number)	320,160	77.69	62.74	73.40	75.13	83.44	78.42	84.40	80.66	75.05	92.80	93.19	87.73
DEPOTHER	Dependents: Has dependent(s) other than children	320,160	77.69	62.74	73.41	75.13	83.44	78.42	84.40	80.66	75.05	92.80	93.19	87.74

See notes at end of table.

**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
DERMAJ	Derived major: 2010 6-digit CIP code	301,820	98.24	89.20	97.22	95.13	97.45	99.27	99.84	99.83	99.24	98.41	99.75	99.26
DODAMT	Department of Defense (military) aid	320,160	97.59	100.00	97.46	98.29	99.89	98.11	100.00	96.92	93.87	100.00	94.74	100.00
EMPLWAIV	Institutional tuition waivers for staff	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
EMPLYAM3	Employer aid (student and parents)	320,160	97.59	100.00	97.46	98.29	99.89	98.11	100.00	96.92	93.88	100.00	94.74	100.00
ENR01	Monthly enrollment status (half-time) 2017/07	320,160	99.10	99.48	99.47	99.61	99.77	99.07	99.16	98.29	99.46	98.09	94.83	97.87
ENR02	Monthly enrollment status (half-time) 2017/08	320,160	99.02	99.41	99.28	99.45	99.65	99.07	99.80	98.07	99.30	98.46	95.24	98.22
ENR03	Monthly enrollment status (half-time) 2017/09	320,160	99.23	99.43	99.39	99.50	99.86	99.77	99.85	98.15	99.36	97.08	95.55	97.66
ENR04	Monthly enrollment status (half-time) 2017/10	320,160	99.22	99.43	99.43	99.65	99.82	99.76	99.83	98.14	99.47	96.11	93.39	97.85
ENR05	Monthly enrollment status (half-time) 2017/11	320,160	99.25	99.45	99.51	99.72	99.82	99.78	99.99	98.23	99.53	97.01	92.44	97.74
ENR06	Monthly enrollment status (half-time) 2017/12	320,160	99.34	99.38	99.52	99.70	99.82	99.73	99.99	98.24	99.54	97.08	94.53	98.74
ENR07	Monthly enrollment status (half-time) 2018/01	320,160	99.22	99.50	99.51	99.58	99.79	99.70	99.99	98.20	99.23	97.74	94.42	97.38

See notes at end of table.

**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
ENR08	Monthly enrollment status (half-time) 2018/02	320,160	99.27	99.33	99.58	99.64	99.83	99.73	99.99	98.23	99.34	97.33	93.42	97.79
ENR09	Monthly enrollment status (half-time) 2018/03	320,160	99.28	99.38	99.62	99.61	99.84	99.74	99.94	98.23	99.33	96.18	93.74	97.97
ENR10	Monthly enrollment status (half-time) 2018/04	320,160	99.31	99.37	99.64	99.53	99.88	99.76	100.00	98.26	99.37	96.43	94.17	98.17
ENR11	Monthly enrollment status (half-time) 2018/05	320,160	99.26	99.28	99.65	99.56	99.93	99.74	99.95	98.23	99.39	96.50	93.88	97.24
ENR12	Monthly enrollment status (half-time) 2018/06	320,160	99.38	99.25	99.70	99.57	99.86	99.80	99.94	98.28	99.47	97.43	93.99	98.37
GENDER	Gender	320,160	99.58	100.00	99.01	99.63	99.87	99.87	100.00	100.00	99.85	100.00	100.00	99.74
GPA	Estimated grade point average	320,160	63.02	3.84	55.27	73.80	65.46	68.09	17.16	64.93	74.39	15.91	53.43	69.31
HCHONORS	Number of honors subjects	273,740	45.88	16.85	31.20	36.75	52.18	60.07	19.96	52.89	61.04	20.67	20.68	19.41
HCMATHHI	Highest level of math completed or planned	273,740	48.75	22.79	35.26	39.89	55.85	63.04	31.81	55.14	60.40	24.32	21.91	19.63
HCSCINUM	Number of science courses taken	273,740	49.75	20.44	35.77	40.48	57.14	64.44	32.11	56.16	62.04	24.22	22.50	20.58
HCTKBIOL	Took or planned to take biology	273,740	52.05	22.18	38.28	42.41	60.02	66.60	33.04	59.08	64.05	27.95	24.93	21.25
HCTKCHEM	Took or planned to take chemistry	273,740	51.59	21.62	37.64	42.08	59.64	66.24	32.16	58.73	63.69	26.55	24.43	21.14
HCTKPHYS	Took or planned to take physics	273,740	50.04	20.57	36.19	40.74	57.46	64.70	32.12	56.35	62.20	24.69	22.71	20.66

See notes at end of table.

**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
HCYSENGL	Years completed or planned English	273,740	49.91	23.18	36.38	39.86	57.54	64.09	30.29	57.06	61.85	27.49	23.38	20.71
HCYSLANG	Years completed or planned foreign languages	273,740	34.38	16.42	25.08	27.21	40.29	43.84	16.67	39.02	43.92	18.20	15.21	14.15
HCYSMATH	Years completed or planned math	273,740	50.11	23.26	36.74	40.03	57.78	64.21	31.03	57.30	61.92	27.18	23.51	20.67
HCYSSCIE	Years completed or planned science	273,740	49.54	22.67	36.21	39.16	57.05	63.66	30.08	56.54	61.30	27.23	23.28	20.47
HCYSSOCI	Years completed or planned social studies	273,740	22.23	3.90	13.65	17.29	25.76	29.31	7.11	26.86	35.12	3.65	5.71	7.28
HISPANIC	Race: Hispanic or Latino origin	320,160	94.02	99.62	93.79	94.03	94.10	96.41	83.98	94.50	91.21	94.09	96.90	86.77
HOMELESS	Homeless or at risk of homelessness	235,690	68.15	41.69	61.99	66.48	76.71	71.30	70.49	74.30	67.20	77.10	66.31	62.81
HSDEG	High school degree type	320,160	87.94	81.57	87.19	89.35	88.41	89.14	93.93	87.58	81.53	96.14	97.69	89.66
HSGPA	Grade point average in high school	273,740	50.58	18.48	37.18	40.63	58.94	64.47	29.87	57.49	62.66	26.54	26.05	21.65
INATHAMT	Athletic scholarships	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98	100.00	100.00	100.00
INGRTAMT	Institutional grants total	320,160	99.86	100.00	99.99	99.99	99.75	99.89	100.00	99.38	99.89	100.00	100.00	99.32
INLNAMT	Institutional loans	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.99	100.00	100.00	100.00

See notes at end of table.



**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
INSMILAMT	Institution military/armed forces grants	320,160	99.96	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.32
INSTAMT	Institutional aid total	320,160	99.86	100.00	99.99	99.99	99.75	99.88	100.00	99.38	99.86	100.00	100.00	99.32
INSTCATGRT	Institution categorical grants	320,160	99.96	100.00	100.00	100.00	99.78	99.99	100.00	99.66	99.95	100.00	100.00	100.00
INSTNEED	Institutional need-based grants	320,160	99.97	100.00	100.00	99.99	99.99	99.98	100.00	99.74	99.97	100.00	100.00	100.00
INSTSTAT	NPSAS institution state	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
INSTWRK	Institutional work-study	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.99	99.99	100.00	100.00	100.00
INSVETAMT	Institutional Veterans' education benefits	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
LOCALRES	Residence while enrolled	320,160	61.85	42.94	52.07	54.75	66.88	64.94	45.28	77.67	76.14	90.12	82.15	47.86
MILTYPE2	Military type (for dependency)	320,160	99.71	99.94	99.81	99.68	99.61	99.63	100.00	99.80	99.72	99.93	99.75	99.47
MONTH_PSECTYM	Month first enrolled in postsecondary education	320,160	84.58	62.74	87.54	87.82	81.91	81.87	64.74	85.99	88.08	63.31	78.19	83.88
MULTIRACIAL	Student's multiracial status	320,160	82.73	95.43	81.11	80.38	86.60	85.33	83.81	88.02	82.66	93.05	72.71	70.88

See notes at end of table.

**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
ORPHAN	Orphan, ward of court, emancipated minor, or in legal guardianship	235,690	74.96	54.50	70.99	74.00	83.16	76.66	78.27	78.84	71.79	88.06	78.66	75.74
OTHFDGRT	Other federal grants (not Title IV)	320,160	93.02	100.00	94.46	92.08	92.41	91.07	100.00	93.37	91.19	94.89	88.25	99.47
PARED1B	Parent 1: Highest education level	320,160	70.94	58.30	65.61	66.93	77.76	73.97	75.98	75.67	70.46	74.09	76.46	77.31
PARED1_AC	Parent 1 highest education level	320,160	70.94	58.30	65.61	66.93	77.76	73.97	75.98	75.67	70.46	74.09	76.46	77.31
PARED2B	Parent 2: Highest education level	320,160	64.72	54.41	59.07	60.12	70.44	68.48	67.06	69.59	65.30	65.95	68.96	70.08
PARED2_AC	Parent 2 highest education level	320,160	64.72	54.41	59.07	60.12	70.44	68.48	67.06	69.59	65.30	65.95	68.96	70.08
PELLAMT	Federal Pell Grant	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
PFAMNUM	Dependent students: Family size	223,530	74.39	53.35	69.88	73.35	83.03	75.50	83.67	78.54	70.92	95.06	87.71	83.10
PHSLOAN	Federal health professions loans	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
PINCOL	Dependent students: Number of family members in college	223,530	67.26	41.69	59.49	64.60	76.17	69.48	80.28	74.41	65.74	90.67	82.98	80.38
PLUSAMT	Direct PLUS Loans to parents	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

See notes at end of table.

**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
PMARITAL	Dependent students: Parents' marital status	223,530	76.55	55.85	73.30	76.17	84.55	77.38	84.17	79.37	72.34	95.27	88.45	83.60
PRIVAIID	Private source grants	320,160	99.99	100.00	100.00	99.98	99.93	100.00	100.00	100.00	99.94	100.00	100.00	99.99
PROGSTAT2	Completed degree program in 2017-18	320,160	75.51	40.97	75.25	74.83	79.30	77.57	62.10	78.25	77.18	61.04	66.03	68.49
RAASIAN	Race: Asian	320,160	82.28	95.42	80.86	80.19	86.17	84.67	83.81	87.14	82.33	92.93	71.14	70.35
RABLACK	Race: Black or African American	320,160	82.28	95.42	80.86	80.19	86.17	84.67	83.81	87.14	82.33	92.93	71.14	70.35
RAINDIAN	Race: American Indian or Alaska Native	320,160	82.28	95.42	80.86	80.19	86.17	84.67	83.81	87.14	82.33	92.93	71.14	70.35
RAISLAND	Race: Native Hawaiian or other Pacific Islander	320,160	82.28	95.42	80.86	80.19	86.17	84.67	83.81	87.14	82.33	92.93	71.14	70.35
RAWHITE	Race: White	320,160	82.28	95.42	80.86	80.19	86.17	84.67	83.81	87.14	82.33	92.93	71.14	70.35
SEOGAMT	Federal Supplemental Educational Opportunity Grant (SEOG)	320,160	98.78	100.00	99.12	97.68	97.78	98.32	99.90	99.74	98.62	99.94	100.00	99.76
SINCOL	Independent students: Number of family members in college	171,590	84.23	74.22	80.04	79.62	87.06	87.38	86.64	86.95	86.01	91.48	93.75	89.22
SMARITAL	Marital status	320,160	77.60	60.02	72.64	74.74	83.07	77.96	86.36	82.52	75.63	95.09	93.86	89.63

See notes at end of table.

**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
SPINCOL	Independent students: Spouse attending college	100,740	56.64	44.34	47.59	47.53	63.26	58.13	74.61	70.16	66.14	80.13	73.91	65.80
STAFFAMT	Direct Subsidized and Unsubsidized Loans	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STAFSUB	Direct Subsidized Loans	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STAFUNSB	Direct Unsubsidized Loans	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STATEAMT	State aid total	320,160	97.58	100.00	97.44	98.30	99.89	98.08	99.63	96.92	93.95	99.99	94.74	100.00
STGTAMT	State grants total	320,160	99.98	100.00	99.98	100.00	99.99	99.98	99.63	100.00	99.98	100.00	100.00	100.00
STLNAMT	State loans	320,160	99.99	100.00	100.00	100.00	100.00	99.98	100.00	100.00	100.00	100.00	100.00	100.00
STMERIT	State merit-only grants	320,160	100.00	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STMILAMT	State military/armed forces grants	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STNDMRT	State grants based both on need and merit	320,160	99.99	100.00	100.00	100.00	100.00	99.98	99.63	100.00	100.00	100.00	100.00	100.00
STNDONLY	State need-based only grants	320,160	99.99	100.00	99.99	100.00	99.99	99.98	100.00	100.00	100.00	100.00	100.00	100.00
STNOND1	State non-need grants	320,160	99.99	100.00	100.00	100.00	100.00	99.98	100.00	100.00	99.98	100.00	100.00	100.00
STUSTATE	State of legal residence	320,160	94.01	82.27	89.94	92.87	93.68	96.77	92.75	96.66	96.29	95.29	95.45	98.00

See notes at end of table.

**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
STVETAMT	State Veterans' education benefits	320,160	99.99	100.00	100.00	100.00	100.00	99.98	100.00	100.00	100.00	100.00	100.00	100.00
STWKAMT	State work-study	320,160	99.99	100.00	100.00	100.00	100.00	99.98	100.00	100.00	100.00	100.00	100.00	100.00
TAXRATIO	Interim variable: Percentage of income used to pay federal tax	320,160	65.03	49.46	59.24	61.69	70.19	68.02	72.78	70.85	67.18	73.55	64.71	69.23
TEACTDER_AC	ACT derived composite score	273,740	63.05	27.27	47.16	50.64	75.88	79.34	43.29	72.32	77.40	31.42	32.25	25.92
TESATDER_AC	SAT derived composite score	273,740	63.05	27.27	47.16	50.64	75.88	79.34	43.29	72.32	77.40	31.42	32.25	25.92
TFEDAID	Total federal aid (excludes Veterans'/DOD aid)	320,160	92.73	100.00	93.68	92.03	92.41	91.03	99.90	93.34	91.18	94.83	88.25	99.23
TFEDGRT	Total federal grants (excludes Veterans'/DOD aid)	320,160	92.73	100.00	93.68	92.03	92.41	91.03	99.90	93.34	91.18	94.83	88.25	99.23
TFEDLN	Total federal loans (excludes Parent PLUS Loans)	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TFEDWRK	Federal work-study	320,160	97.96	100.00	97.54	98.42	99.90	98.17	100.00	97.24	96.12	100.00	98.05	100.00
TITIVAMT	Total federal Title IV aid	320,160	96.78	100.00	96.66	96.10	97.68	96.49	99.90	96.98	95.13	99.93	98.05	99.76
TOTAID	Total aid amount	320,160	92.60	100.00	93.65	92.00	92.31	90.90	99.53	93.03	90.97	94.82	88.25	98.54
TOTGRT	Total grants	320,160	92.60	100.00	93.65	92.00	92.31	90.90	99.53	93.04	91.00	94.83	88.25	98.54
TOTLOAN	Total loans (excludes Parent PLUS Loans)	320,160	99.99	100.00	100.00	100.00	100.00	99.97	100.00	100.00	99.99	100.00	100.00	100.00

See notes at end of table.

**Table N-4. Weighted undergraduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public					Private nonprofit			Private for-profit		
				Less-than-2-year	2-year	4-year, non-doctorate-granting, primarily subbaccalaureate	4-year, non-doctorate-granting, primarily baccalaureate	4-year, doctorate-granting	Less-than-4-year	4-year, non-doctorate-granting	4-year, doctorate-granting	Less-than-2-year	2-year	4-year
TOTWKST	Total work-study	320,160	97.95	100.00	97.54	98.42	99.90	98.15	100.00	97.24	96.11	100.00	98.05	100.00
UGDEG	Undergraduate degree program	320,160	98.91	100.00	98.11	97.83	97.95	99.41	99.84	99.95	99.90	98.51	99.79	99.99
UGLVL1	Class level	320,160	99.34	100.00	99.31	98.33	99.13	99.38	99.98	99.48	99.73	99.95	99.54	99.48
VETBEN	Federal Veterans' education benefits	320,160	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
VOCHelp	Vocational rehabilitation and training	320,160	97.59	100.00	97.46	98.30	99.90	98.08	100.00	96.92	93.97	99.99	94.74	100.00
WAIVNOEMP	Institution tuition and fee waivers except for those to staff	320,160	100.00	100.00	100.00	100.00	99.99	100.00	100.00	100.00	99.99	100.00	100.00	100.00

NOTE: CIP = Classification of Instructional Programs; DOD = Department of Defense; FWS = federal work-study; NPSAS: National Postsecondary Student Aid Study; SEOG = Supplemental Educational Opportunity Grant; VA = Department of Veterans Affairs. Response rates are weighted using the final analysis weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table N-5. Summary of weighted undergraduate student-level response rates across states, overall and by public 2-year and public-4-year institutions, for select imputed variables: 2017–18**

		All undergraduate students				Undergraduates in public 2-year institutions				Undergraduates in public 4-year institutions			
		Min	Median	Mean	Max	Min	Median	Mean	Max	Min	Median	Mean	Max
DODAMT	Department of Defense (military) aid	64.77	99.82	97.54	100.00	45.79	100.00	97.83	100.00	81.91	100.00	98.87	100.00
EMPLWAIV	Institutional tuition waivers for staff	99.97	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.94	100.00	100.00	100.00
EMPLYAM3	Employer aid (student & parents)	64.77	99.82	97.54	100.00	45.79	100.00	97.83	100.00	81.91	100.00	98.87	100.00
INATHAMT	Athletic scholarships	99.84	100.00	99.99	100.00	99.98	100.00	100.00	100.00	99.78	100.00	99.99	100.00
INLNAMT	Institutional loans	99.88	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.67	100.00	99.99	100.00
INSMILAMT	Institution military/armed forces grants	99.70	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
INSTCATGRT	Institution categorical grants	99.24	100.00	99.97	100.00	99.96	100.00	100.00	100.00	99.33	100.00	99.98	100.00
INSTNEED	Institutional need-based grants	95.47	100.00	99.89	100.00	99.89	100.00	100.00	100.00	99.12	100.00	99.97	100.00
INSTWRK	Institution work-study	99.98	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
INSVETAMT	Institutional Veterans' education benefits	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
OTHFDGRT	Other federal grants (not Title IV)	64.77	93.27	92.10	100.00	45.79	99.53	94.34	100.00	46.77	97.97	92.17	100.00
PHSLOAN	Federal health professions loans	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
PRIVAID	Private source grants	99.82	100.00	99.98	100.00	99.95	100.00	100.00	100.00	99.68	100.00	99.98	100.00
SEOGAMT	Federal Supplemental Educational Opportunity Grant (SEOG)	76.32	99.87	99.15	100.00	88.89	100.00	99.46	100.00	59.43	100.00	98.67	100.00
STLNAMT	State loans	99.94	100.00	100.00	100.00	99.95	100.00	100.00	100.00	99.83	100.00	100.00	100.00
STMERIT	State merit-only grants	99.94	100.00	100.00	100.00	99.85	100.00	99.99	100.00	99.98	100.00	100.00	100.00
STMILAMT	State military/armed forces grants	99.97	100.00	100.00	100.00	99.92	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STNDMRT	State grants based both on need & merit	99.91	100.00	100.00	100.00	99.92	100.00	100.00	100.00	99.83	100.00	100.00	100.00
STNDONLY	State need-based only grants	99.94	100.00	100.00	100.00	99.94	100.00	100.00	100.00	99.83	100.00	100.00	100.00
STNOND1	State nonneed grants	99.82	100.00	99.99	100.00	99.95	100.00	100.00	100.00	99.83	100.00	100.00	100.00
STVETAMT	State Veterans' education benefits	99.94	100.00	100.00	100.00	99.95	100.00	100.00	100.00	99.83	100.00	100.00	100.00
STWKAMT	State work-study	99.94	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83	100.00	100.00	100.00
TFEDWRK	Federal work-study	64.77	99.90	97.75	100.00	45.79	100.00	97.90	100.00	82.50	100.00	98.91	100.00
VOHELP	Vocational rehabilitation and training	65.07	99.80	97.58	100.00	46.25	100.00	97.84	100.00	81.91	100.00	98.86	100.00
WAIVNOEMP	Institution tuition and fee waivers except for those to staff	99.81	100.00	99.99	100.00	99.90	100.00	100.00	100.00	99.91	100.00	100.00	100.00

NOTE: Response rates are weighted using the final analysis weight. Response rates were calculated separately for each state, then summary statistics were calculated across states.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).

**Table N-6. Weighted graduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18**

Variable	Variable label	Sample size	All students	Public 4-year			Private nonprofit 4-year		
				Non-doctorate-granting, primarily subbaccalaureate	Non-doctorate-granting, primarily baccalaureate	Doctorate-granting	Non-doctorate-granting	Doctorate-granting	Private for-profit 4-year
AGE	Age as of 12/31/17	24,550	99.70	100.00	99.67	99.34	99.84	100.00	99.99
AGE_BAYEAR	Age received bachelor's degree	24,550	44.83	82.50	44.84	47.57	38.72	40.91	51.65
AIDSECTG	NPSAS institution type: Graduate (with multiple)	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
ATTNSTAT	Attendance pattern	24,550	98.64	96.85	99.17	98.69	98.18	98.94	97.40
CITIZEN2	Citizenship status	24,550	92.10	92.74	81.57	92.40	89.79	92.05	96.97
DEPANY	Dependents: Has any dependents	24,550	62.67	82.65	57.93	59.75	63.05	61.14	82.48
DEPCHILD	Dependents: Has dependent children	24,550	62.64	82.65	57.93	59.74	62.84	61.13	82.42
DEPCOL	Independent students: Number of dependents in college	10,790	50.12	70.51	37.92	43.21	53.63	44.89	72.05
DEPNUM	Dependents: Has any dependents (number)	24,550	62.63	82.65	57.93	59.74	62.83	61.10	82.42
DEPOTHER	Dependents: Has dependent(s) other than children	24,550	62.64	82.65	57.93	59.74	62.84	61.13	82.42
DERMAJ	Derived major: 2010 6-digit CIP code	23,830	98.55	88.90	98.37	97.98	97.45	99.22	99.24
DODAMT	Department of Defense (military) aid	24,550	96.05	100.00	99.56	98.67	95.83	91.65	100.00
EMPLWAIV	Institutional tuition waivers for staff	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
EMPLYAM3	Employer aid (student & parents)	24,550	96.05	100.00	99.56	98.67	95.83	91.65	100.00
EMPLYAMT	Employer aid (includes college staff)	24,550	96.05	100.00	99.56	98.67	95.83	91.65	100.00
ENR01	Monthly enrollment status 2017/07	24,550	99.27	98.41	99.52	99.11	99.14	99.33	99.77
ENR02	Monthly enrollment status 2017/08	24,550	99.38	98.50	99.96	99.15	98.89	99.54	99.82
ENR03	Monthly enrollment status 2017/09	24,550	99.39	98.50	99.96	99.58	99.01	99.32	98.90
ENR04	Monthly enrollment status 2017/10	24,550	99.36	98.50	99.96	99.58	99.05	99.44	98.09
ENR05	Monthly enrollment status 2017/11	24,550	99.33	98.50	99.95	99.58	99.05	99.33	98.13
ENR06	Monthly enrollment status 2017/12	24,550	99.51	98.50	99.96	99.48	99.05	99.58	99.55
ENR07	Monthly enrollment status 2018/01	24,550	99.57	96.94	99.68	99.69	98.61	99.58	99.66
ENR08	Monthly enrollment status 2018/02	24,550	99.64	98.50	99.71	99.74	98.69	99.63	99.85
ENR09	Monthly enrollment status 2018/03	24,550	99.68	98.50	99.71	99.74	98.70	99.73	99.85
ENR10	Monthly enrollment status 2018/04	24,550	99.69	98.50	99.71	99.74	98.76	99.74	99.82
ENR11	Monthly enrollment status 2018/05	24,550	99.54	98.50	99.94	99.74	98.75	99.58	98.93
ENR12	Monthly enrollment status 2018/06	24,550	99.72	98.50	99.94	99.92	98.80	99.70	99.47
GENDER	Gender	24,550	99.76	100.00	99.76	99.85	99.83	99.62	99.87
GPLUSAMT	Direct PLUS Loans to graduate students	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00

See notes at end of table.



**Table N-6. Weighted graduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public 4-year			Private nonprofit 4-year		
				Non-doctorate-granting, primarily subbaccalaureate	Non-doctorate-granting, primarily baccalaureate	Doctorate-granting	Non-doctorate-granting	Doctorate-granting	Private for-profit 4-year
GRADDEG	Graduate degree program	24,550	99.18	89.58	98.76	98.61	99.98	99.52	100.00
GRADLVL2	Graduate class level	24,550	79.34	57.00	72.83	80.54	77.90	77.58	84.56
GRASTAMT	Total assistantships amount	24,550	99.98	100.00	100.00	99.95	100.00	100.00	100.00
GRGRDAMT	Other graduate assistantship amount	24,550	99.98	100.00	100.00	99.95	100.00	100.00	100.00
GRINFEL	Graduate fellowship amount	24,550	99.95	100.00	99.82	99.90	100.00	99.99	100.00
GRRESAMT	Graduate research assistantship amount	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
GRTEAMT	Graduate teaching assistantship amount	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
HISPANIC	Race: Hispanic or Latino origin	24,550	85.46	95.26	91.17	88.96	88.49	82.01	79.03
INCOMEG	Total income (categorical)	24,550	50.82	77.47	47.70	44.93	53.50	49.99	78.42
INLNAMT	Institutional loans	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
INSMILAMT	Institution military/armed forces grants	24,550	99.98	100.00	100.00	100.00	100.00	100.00	99.79
INSTWRK	Institutional work-study	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
INSVETAMT	Institutional Veterans' education benefits	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
MILTYPE2	Military type (for dependency)	24,550	99.80	100.00	99.84	99.84	99.81	99.79	99.62
MONTH_BAYEARM	Month received bachelor's degree	24,550	44.83	82.50	44.84	47.57	38.72	40.91	51.65
MULTIRACIAL	Student's multiracial status	24,550	76.40	79.15	84.70	77.10	83.98	74.76	71.06
OTHFDGRT	Other federal grants (not Title IV)	24,550	90.31	63.14	86.66	90.98	93.40	86.99	99.52
PARED1B	Parent 1 highest education level	24,550	58.92	67.26	55.06	56.88	57.85	58.10	72.93
PARED1_AC	Parent 1 highest education level	24,550	58.92	67.26	55.06	56.88	57.85	58.10	72.93
PARED2B	Parent 2 highest education level	24,550	56.09	60.94	51.46	54.83	54.55	55.79	65.50
PARED2_AC	Parent 2 highest education level	24,550	56.09	60.94	51.46	54.83	54.55	55.79	65.50
PHSLOAN	Federal health professions loans	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
PRIVAIID	Private source grants	24,550	99.99	100.00	99.83	100.00	100.00	100.00	100.00
PROGSTAT2	Completed degree program in 2017-18	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
RAASIAN	Race: Asian	24,550	76.38	79.15	84.70	77.09	83.90	74.75	71.06
RABLACK	Race: Black or African American	24,550	76.38	79.15	84.70	77.09	83.90	74.75	71.06
RAINDIAN	Race: American Indian or Alaska Native	24,550	76.38	79.15	84.70	77.09	83.90	74.75	71.06
RAISLAND	Race: Native Hawaiian or other Pacific Islander	24,550	76.38	79.15	84.70	77.09	83.90	74.75	71.06
RAWHITE	Race: White	24,550	76.38	79.15	84.70	77.09	83.90	74.75	71.06
SINCOL	Independent students: Number of family members in college	24,550	80.64	81.80	74.63	81.85	74.13	81.10	80.57

See notes at end of table.

**Table N-6. Weighted graduate student-level item response rates for imputed and select analysis variables, by control and level of institution: 2017–18—Continued**

Variable	Variable label	Sample size	All students	Public 4-year			Private nonprofit 4-year		
				Non-doctorate-granting, primarily subbaccalaureate	Non-doctorate-granting, primarily baccalaureate	Doctorate-granting	Non-doctorate-granting	Doctorate-granting	Private for-profit 4-year
SMARITAL	Marital status	24,550	64.00	83.63	58.64	59.14	70.81	63.48	84.33
SPINCOL	Independent students: Spouse attending college	9,230	42.68	54.66	38.43	37.49	44.86	42.97	54.62
STAFUNSB	Direct Unsubsidized Loans	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STLNAMT	State loans	24,550	99.23	100.00	99.73	99.76	99.46	98.32	100.00
STMERIT	State merit-only grants	24,550	99.23	100.00	99.73	99.76	99.46	98.32	100.00
STMILAMT	State military/armed forces grants	24,550	99.23	100.00	99.73	99.76	99.46	98.32	100.00
STNDMRT	State grants based both on need and merit	24,550	99.23	100.00	99.73	99.76	99.46	98.32	100.00
STNDONLY	State need-based only grants	24,550	99.23	100.00	99.73	99.76	99.46	98.32	100.00
STNOND1	State nonneed grants	24,550	99.22	100.00	99.73	99.73	99.46	98.32	100.00
STUSTATE	State of legal residence	24,550	92.52	92.74	86.63	92.82	92.54	91.64	96.95
STVETAMT	State Veterans' education benefits	24,550	99.23	100.00	99.73	99.76	99.46	98.32	100.00
STWKAMT	State work-study	24,550	99.23	100.00	99.73	99.76	99.46	98.32	100.00
TAXRATIO	Interim variable: Percentage of income used to pay federal tax	24,550	48.32	66.48	39.65	45.51	48.54	47.45	66.93
TFEDWRK	Federal work-study	24,550	89.96	64.04	91.73	92.88	92.54	88.64	80.16
TOTAID	Total aid amount	24,550	87.57	63.14	86.49	89.91	91.28	86.43	79.94
TOTGRT	Total grants	24,550	90.14	63.14	86.49	90.74	93.36	86.87	99.30
TOTLOAN	Total loans (excludes Parent PLUS Loans)	24,550	99.23	100.00	99.73	99.76	99.46	98.32	100.00
WAVNOEMP	Institution tuition and fee waivers except for those to staff	24,550	100.00	100.00	100.00	100.00	100.00	100.00	100.00

NOTE: CIP = Classification of Instructional Programs; National Postsecondary Student Aid Study. Response rates are weighted using the final analysis weight.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2017–18 National Postsecondary Student Aid Study, Administrative Collection (NPSAS:18-AC).