2017–18 NATIONAL POSTSECONDARY STUDENT AID STUDY ADMINISTRATIVE COLLECTION (NPSAS:18-AC)

Supporting Statement Part B

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**Submitted by**

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# Collection of Information Employing Statistical Methods

This submission requests clearance for the 2017–18 National Postsecondary Student Aid Study Administrative Collection (NPSAS:18-AC). Specific plans are provided below.

## Respondent Universe

### Institution Universe

To be eligible for NPSAS:18-AC, an institution must meet the following requirements during the 2017–18 academic year:

* 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 are open to more than the employees or members of the company or group (e.g., union) that administered the institution;
* be located in at least one of the 50 states, the District of Columbia, or Puerto Rico;
* be other than a U.S. service academy; and
* have a signed Title IV participation agreement with the U.S. Department of Education.

Institutions providing only avocational, recreational, or remedial courses or only in-house courses for their own employees will be excluded. The seven U.S. service academies[[1]](#footnote-1) are excluded because of their unique funding/tuition base.

### Student Universe

The students eligible for inclusion in the NPSAS:18-AC sample are those who are enrolled in a NPSAS-eligible institution in any term or course of instruction between July 1, 2017 and April 30, 2018 who are

* enrolled in (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 who the institution has determined are eligible for Title IV aid; *or* (4) 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;
* not currently enrolled in high school; *and*
* not enrolled *solely* in a high school equivalency program.

## Statistical Methodology

### Institution Sample

The NPSAS:18-AC institution sampling frame will be constructed from the Integrated Postsecondary Education Data System (IPEDS) 2016–17 Header and Institutional Characteristics (IC) files, and 2015–16 12-month Enrollment file.[[2]](#footnote-2)

Several for-profit institutions and large chains of for-profit institutions, such as ITT Technical Institute campuses, have been closed or sold recently. During construction of the institution sampling frame, survey staff will use all available resources to identify institutions that are still in IPEDS but are no longer eligible for NPSAS:18-AC due to closure and will exclude these institutions from the institution sampling frame

For the small number of institutions in the frame that have missing enrollment information, survey staff will impute the data using the latest IPEDS imputation procedures to guarantee complete data for the frame.

The institution sampling strata will be the following three sectors within each state (50 states) and territory (two territories - the District of Columbia and Puerto Rico), for a total of 156 institution sampling strata (52 x 3):

1. public 2 year,
2. public 4 year,[[3]](#footnote-3) and
3. all other institutions, including:
4. public less than 2 year,
5. private nonprofit (all levels), and
6. private for profit (all levels).

The estimated institution sample sizes by these 156 institution sampling strata, presented in table 1, will allow us to have state-representative[[4]](#footnote-4) undergraduate student samples for public 2-year and public 4-year institutions as well as overall. The sample will be nationally-representative for both undergraduate and graduate students across all postsecondary institutions.

We will select a total of 3,103 institutions that will include a census of all public 2-year and all public 4-year institutions and a sample of 1,390 institutions from the “all other institutions” stratum. Within the “all other institutions” stratum, our goal is to sample at least 30 institutions per state so that schools in this stratum will be sufficiently represented within the state and national samples. We will use the following criteria to determine institution sample sizes within the “all other institutions” stratum:

1. In states with 30 or fewer institutions in the “all other institutions” strata, we will take a census of institutions in the “all other institutions” strata.
2. In states with more than 30 institutions in the “all other institutions” strata and where selecting only 30 institutions would result in a very high sampling fraction, we will take a census of institutions. We have arbitrarily chosen 36 institutions as the cutoff to avoid high sampling fractions. This cutoff will result in taking a census of institutions in states that have between 31 and 36 institutions in the “all other institutions” strata.[[5]](#footnote-5)
3. In states with more than 36 institutions in the “all other institutions” strata, we will sample 30 institutions in the “all other institutions” strata.

Within the “all other institutions” stratum, we will select institutions using stratified random sampling with probabilities proportional to a composite measure of size.[[6]](#footnote-6) This is the same methodology that we have used since NPSAS:96. Institution measures of size will be determined using the most recent IPEDS 12-month enrollment data. Using a composite measure of size will ensure that the target sample sizes are achieved within institution and student sampling strata while also achieving approximately equal student weights across institutions.

Within the “all other institutions” stratum, additional implicit stratification is accomplished by sorting the sampling frame by the following classifications: institution sector, Historically Black Colleges and Universities (HBCU) indicator, Hispanic Serving Institutions (HSI) indicator[[7]](#footnote-7), Carnegie classifications of postsecondary institutions[[8]](#footnote-8), and the institution measure of size. The objective of this implicit stratification is to approximate proportional representation of institutions on these measures.

Table 1. NPSAS:18-AC estimated institution sample sizes

|  | Number of institutions |
| --- | --- |
|  | Public 2-year |  | Public 4-year |  | Other sectors |  | All sectors |
| State | Population estimate | Sample size |  | Population estimate | Sample size |  | Population estimate | Sample size |  | Population estimate | Total sample size |
| Alabama | 25 | 25 |  | 14 | 14 |  | 50 | 30 |  | 89 | 69 |
| Alaska | 1 | 1 |  | 3 | 3 |  | 6 | 6 |  | 10 | 10 |
| Arizona | 20 | 20 |  | 9 | 9 |  | 95 | 30 |  | 124 | 59 |
| Arkansas | 22 | 22 |  | 11 | 11 |  | 51 | 30 |  | 84 | 63 |
| California | 118 | 118 |  | 32 | 32 |  | 483 | 30 |  | 633 | 180 |
| Colorado | 15 | 15 |  | 14 | 14 |  | 86 | 30 |  | 115 | 59 |
| Connecticut | 13 | 13 |  | 9 | 9 |  | 62 | 30 |  | 84 | 52 |
| Delaware | 1 | 1 |  | 2 | 2 |  | 14 | 14 |  | 17 | 17 |
| District of Columbia | 0 | 0 |  | 1 | 1 |  | 17 | 17 |  | 18 | 18 |
| Florida | 38 | 38 |  | 38 | 38 |  | 306 | 30 |  | 382 | 106 |
| Georgia | 25 | 25 |  | 29 | 29 |  | 110 | 30 |  | 164 | 84 |
| Hawaii | 6 | 6 |  | 4 | 4 |  | 13 | 13 |  | 23 | 23 |
| Idaho | 4 | 4 |  | 4 | 4 |  | 33 | 33 |  | 41 | 41 |
| Illinois | 48 | 48 |  | 12 | 12 |  | 201 | 30 |  | 261 | 90 |
| Indiana | 1 | 1 |  | 15 | 15 |  | 108 | 30 |  | 124 | 46 |
| Iowa | 16 | 16 |  | 3 | 3 |  | 69 | 30 |  | 88 | 49 |
| Kansas | 25 | 25 |  | 8 | 8 |  | 56 | 30 |  | 89 | 63 |
| Kentucky | 16 | 16 |  | 8 | 8 |  | 75 | 30 |  | 99 | 54 |
| Louisiana | 16 | 16 |  | 16 | 16 |  | 90 | 30 |  | 122 | 62 |
| Maine | 7 | 7 |  | 8 | 8 |  | 23 | 23 |  | 38 | 38 |
| Maryland | 16 | 16 |  | 13 | 13 |  | 61 | 30 |  | 90 | 59 |
| Massachusetts | 16 | 16 |  | 13 | 13 |  | 143 | 30 |  | 172 | 59 |
| Michigan | 27 | 27 |  | 19 | 19 |  | 132 | 30 |  | 178 | 76 |
| Minnesota | 31 | 31 |  | 12 | 12 |  | 86 | 30 |  | 129 | 73 |
| Mississippi | 15 | 15 |  | 8 | 8 |  | 36 | 36 |  | 59 | 59 |
| Missouri | 17 | 17 |  | 13 | 13 |  | 150 | 30 |  | 180 | 60 |
| Montana | 11 | 11 |  | 6 | 6 |  | 14 | 14 |  | 31 | 31 |
| Nebraska | 8 | 8 |  | 7 | 7 |  | 36 | 36 |  | 51 | 51 |
| Nevada | 1 | 1 |  | 6 | 6 |  | 37 | 30 |  | 44 | 37 |
| New Hampshire | 7 | 7 |  | 5 | 5 |  | 26 | 26 |  | 38 | 38 |
| New Jersey | 19 | 19 |  | 13 | 13 |  | 122 | 30 |  | 154 | 62 |
| New Mexico | 19 | 19 |  | 9 | 9 |  | 20 | 20 |  | 48 | 48 |
| New York | 38 | 38 |  | 41 | 41 |  | 348 | 30 |  | 427 | 109 |
| North Carolina | 60 | 60 |  | 16 | 16 |  | 112 | 30 |  | 188 | 106 |
| North Dakota | 5 | 5 |  | 9 | 9 |  | 15 | 15 |  | 29 | 29 |
| Ohio | 33 | 33 |  | 34 | 34 |  | 273 | 30 |  | 340 | 97 |
| Oklahoma | 26 | 26 |  | 16 | 16 |  | 99 | 30 |  | 141 | 72 |
| Oregon | 17 | 17 |  | 9 | 9 |  | 64 | 30 |  | 90 | 56 |
| Pennsylvania | 18 | 18 |  | 42 | 42 |  | 298 | 30 |  | 358 | 90 |
| Puerto Rico | 5 | 5 |  | 14 | 14 |  | 123 | 30 |  | 142 | 49 |
| Rhode Island | 1 | 1 |  | 2 | 2 |  | 20 | 20 |  | 23 | 23 |
| South Carolina | 20 | 20 |  | 13 | 13 |  | 70 | 30 |  | 103 | 63 |
| South Dakota | 5 | 5 |  | 7 | 7 |  | 18 | 18 |  | 30 | 30 |
| Tennessee | 39 | 39 |  | 10 | 10 |  | 125 | 30 |  | 174 | 79 |
| Texas | 60 | 60 |  | 44 | 44 |  | 323 | 30 |  | 427 | 134 |
| Utah | 5 | 5 |  | 7 | 7 |  | 63 | 30 |  | 75 | 42 |
| Vermont | 1 | 1 |  | 5 | 5 |  | 16 | 16 |  | 22 | 22 |
| Virginia | 24 | 24 |  | 15 | 15 |  | 124 | 30 |  | 163 | 69 |
| Washington | 17 | 17 |  | 26 | 26 |  | 74 | 30 |  | 117 | 73 |
| West Virginia | 10 | 10 |  | 12 | 12 |  | 51 | 30 |  | 73 | 52 |
| Wisconsin | 17 | 17 |  | 14 | 14 |  | 76 | 30 |  | 107 | 61 |
| Wyoming | 7 | 7 |  | 1 | 1 |  | 3 | 3 |  | 11 | 11 |
| **Total** | **1,012** | **1,012** |  | **701** | **701** |  | **5,106** | **1,390** |  | **6,819** | **3,103** |

NOTE: For some states, the institution population counts represent systems of schools instead of individual campuses (i.e. the public 2-year schools in Indiana are all counted under the Ivy Tech Community College system, so IPEDS only contains one record for public 2-year institutions in Indiana)

SOURCE: Population estimates based on 2015-2016 IPEDS Institutional Characteristics files.

### Student Sample

#### Student Enrollment List Collection

To begin NPSAS data collection, sampled institutions are asked to provide a list of all their NPSAS-eligible undergraduate and graduate students enrolled in the targeted academic year, covering July 1 through June 30 (methods for contacting the sampled institutions are described below in section B.3). Since NPSAS:2000, institutions have been asked to limit listed students to only those enrolled through April 30. This truncated enrollment period excludes students who first enrolled in May or June, but it allows lists to be collected earlier and, in turn, data collection to be completed in less than 12 months. Any lack of coverage resulting from the truncated enrollment period will be accounted for by the poststratification weight adjustment.

#### Student Stratification

The student sampling strata will be

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

To be comparable to NPSAS:16, survey staff are keeping the graduate student sampling strata for NPSAS:18-AC similar to the graduate student sampling strata used in NPSAS:16.

If students fall into multiple strata, such as graduate students who are veterans or with double majors, the ordering of the strata above will be used to prioritize the stratification.

Several student subgroups will be intentionally sampled at rates different from their natural occurrence within the population due to specific analytic objectives. The following groups will be oversampled:

* undergraduate students who are veterans,
* graduate students who are veterans,
* master’s degree students in STEM programs,
* doctoral-research/scholarship/other students in STEM programs, and
* master’s degree students enrolled in for-profit institutions.

Similarly, the following groups will be undersampled:

* master’s degree students in education and business programs, and
* doctoral-research/scholarship/other students in education and business programs.

Because these two groups are so large, sampling in proportion to the population would make it difficult to draw inferences about the experiences of other master’s degree and doctoral students, respectively.

As was done for NPSAS:16, we will match the student enrollment lists to two supplemental databases. To identify veterans, we will match the student enrollment lists with a list of veterans from the Veterans Benefits Administration (VBA). We will also match the student lists to the National Student Loan Data System (NSLDS) and use the financial aid data for student-implicit stratification. Within the student-explicit strata, we will sort the students by federally aided/unaided, which will allow the sample proportions of aided and unaided students to approximately match the population within institution and student strata.

#### Sample Sizes and Student Sampling

NPSAS:18-AC is designed to sample a total of 400,000 students. NCES will sample 25,000 graduate students, and the remaining sample will be of undergraduate students. The undergraduate and graduate student samples will be nationally representative. The undergraduate-student sample will also be state representative for public 2-year and public 4-year institutions as well as overall.

The sample sizes for the undergraduate sample of 375,000 students are presented in table 2. We will divide the undergraduate sample evenly between states (resulting in 7,212 students per state) and proportionally within states to obtain the sample sizes for each stratum. The anticipated sample sizes for the graduate sample of 25,000 students are presented in table 3. If the sampling design changes substantively due to unexpected large shifts in the target population or changes in the sample sizes needed to meet precision goals based on the latest IPEDS data at the time, tables 2 and 3 will be updated by January 12, 2018 and submitted to OMB for review as a change request.

During the NPSAS:18-AC Technical Review Panel (TRP) meeting, panel members expressed an interest in being able to create their own groupings of institutions for analysis (i.e. institutions within specific university systems). We expect to sample approximately 120 undergraduates, on average, per institution. The minimum sample size will vary by institution depending on the strata and enrollment size of the institution. We also expect to collect student records for about 90 percent of the sampled students. Therefore, the sample size will be sufficient to achieve institution-level representation for undergraduate students in public 2-year and public 4-year institutions. We will take the institution-level representation into account when determining the weighting strategy, but institution-level weights will not be produced. Our goal is to have institution-level representation, but the study is not designed to yield institution-level estimates. Although institution-level weights will not be produced, the institution-level representation for undergraduates at 2-year and 4-year public institutions will allow researchers to aggregate institutions for analysis.

Institution-level student sampling rates will be set based on frame data. During the NPSAS:16 list receipt and sampling process, we discovered that the IPEDS data overestimated the enrollment counts for the student lists that we received from sampled institutions. To adjust for this overestimation, we will increase the institution-level student sampling rates by a fixed amount, e.g. 10% within sector. Based on these adjusted rates, students will be sampled on a flow basis as student lists are received. Stratified systematic sampling procedures will be used. Within the graduate-student strata for veterans, the students will be sorted by master’s and doctoral degree seekers to ensure that the sample will be roughly proportional to the frame. As mentioned above, all strata will be sorted (implicitly stratified) by federally aided/unaided students to maintain proportionality between the sample and frame. Sample yield will be monitored by institution and student sampling strata, and the sampling rates will be adjusted early, if necessary, to achieve the desired sample yields.

Table 2. NPSAS:18-AC estimated undergraduate-student sample sizes

|  | Number of students |
| --- | --- |
|  | Public 2-year |  | Public 4-year |  | Other sectors |  | All sectors |
| State | Population estimate | Sample size |  | Population estimate | Sample size |  | Population estimate | Sample size |  | Population estimate | Total sample size |
| Alabama | 121,004 | 2,577 |  | 147,299 | 3,137 |  | 70,320 | 1,498 |  | 338,623 | 7,212 |
| Alaska | 674 | 93 |  | 43,936 | 6,058 |  | 7,695 | 1,061 |  | 52,305 | 7,212 |
| Arizona | 318,634 | 2,769 |  | 143,592 | 1,248 |  | 367,755 | 3,195 |  | 829,981 | 7,212 |
| Arkansas | 75,655 | 2,832 |  | 92,391 | 3,458 |  | 24,634 | 922 |  | 192,680 | 7,212 |
| California | 2,135,031 | 4,619 |  | 638,215 | 1,381 |  | 560,176 | 1,212 |  | 3,333,422 | 7,212 |
| Colorado | 138,647 | 2,397 |  | 173,258 | 2,996 |  | 105,200 | 1,819 |  | 417,105 | 7,212 |
| Connecticut | 77,368 | 2,456 |  | 61,101 | 1,939 |  | 88,725 | 2,816 |  | 227,194 | 7,212 |
| Delaware | 19,163 | 2,200 |  | 24,980 | 2,868 |  | 18,669 | 2,143 |  | 62,812 | 7,212 |
| District of Columbia | 0 | 0 |  | 6,043 | 741 |  | 52,760 | 6,470 |  | 58,803 | 7,212 |
| Florida | 97,374 | 496 |  | 916,792 | 4,671 |  | 401,189 | 2,044 |  | 1,415,355 | 7,212 |
| Georgia | 182,978 | 2,191 |  | 293,617 | 3,516 |  | 125,588 | 1,504 |  | 602,183 | 7,212 |
| Hawaii | 37,891 | 3,315 |  | 28,624 | 2,504 |  | 15,926 | 1,393 |  | 82,441 | 7,212 |
| Idaho | 34,508 | 1,786 |  | 53,336 | 2,760 |  | 51,502 | 2,665 |  | 139,346 | 7,212 |
| Illinois | 620,056 | 4,244 |  | 159,171 | 1,089 |  | 274,481 | 1,879 |  | 1,053,708 | 7,212 |
| Indiana | 173,371 | 2,355 |  | 231,002 | 3,138 |  | 126,485 | 1,718 |  | 530,858 | 7,212 |
| Iowa | 138,562 | 3,034 |  | 67,330 | 1,474 |  | 123,497 | 2,704 |  | 329,389 | 7,212 |
| Kansas | 132,133 | 3,472 |  | 89,169 | 2,343 |  | 53,121 | 1,396 |  | 274,423 | 7,212 |
| Kentucky | 116,784 | 2,914 |  | 117,158 | 2,923 |  | 55,107 | 1,375 |  | 289,049 | 7,212 |
| Louisiana | 108,481 | 2,654 |  | 134,078 | 3,280 |  | 52,252 | 1,278 |  | 294,811 | 7,212 |
| Maine | 24,500 | 2,130 |  | 32,152 | 2,795 |  | 26,316 | 2,287 |  | 82,968 | 7,212 |
| Maryland | 186,058 | 3,392 |  | 159,423 | 2,906 |  | 50,108 | 913 |  | 395,589 | 7,212 |
| Massachusetts | 140,096 | 2,110 |  | 114,859 | 1,730 |  | 223,810 | 3,371 |  | 478,765 | 7,212 |
| Michigan | 271,086 | 2,783 |  | 298,515 | 3,065 |  | 132,823 | 1,364 |  | 702,424 | 7,212 |
| Minnesota | 179,592 | 3,071 |  | 132,557 | 2,267 |  | 109,541 | 1,873 |  | 421,690 | 7,212 |
| Mississippi | 101,573 | 3,742 |  | 72,189 | 2,659 |  | 21,992 | 810 |  | 195,754 | 7,212 |
| Missouri | 139,273 | 2,244 |  | 143,810 | 2,317 |  | 164,433 | 2,650 |  | 447,516 | 7,212 |
| Montana | 13,823 | 1,687 |  | 38,769 | 4,730 |  | 6,513 | 795 |  | 59,105 | 7,212 |
| Nebraska | 70,261 | 3,279 |  | 51,300 | 2,394 |  | 32,978 | 1,539 |  | 154,539 | 7,212 |
| Nevada | 16,269 | 786 |  | 112,211 | 5,419 |  | 20,858 | 1,007 |  | 149,338 | 7,212 |
| New Hampshire | 23,325 | 1,301 |  | 26,731 | 1,491 |  | 79,262 | 4,420 |  | 129,318 | 7,212 |
| New Jersey | 233,758 | 3,377 |  | 165,972 | 2,398 |  | 99,412 | 1,436 |  | 499,142 | 7,212 |
| New Mexico | 110,106 | 4,421 |  | 57,345 | 2,303 |  | 12,151 | 488 |  | 179,602 | 7,212 |
| New York | 463,231 | 2,365 |  | 397,405 | 2,029 |  | 551,889 | 2,818 |  | 1,412,525 | 7,212 |
| North Carolina | 338,587 | 3,705 |  | 200,275 | 2,192 |  | 120,161 | 1,315 |  | 659,023 | 7,212 |
| North Dakota | 9,500 | 1,167 |  | 41,902 | 5,146 |  | 7,324 | 899 |  | 58,726 | 7,212 |
| Ohio | 267,657 | 2,435 |  | 322,655 | 2,935 |  | 202,463 | 1,842 |  | 792,775 | 7,212 |
| Oklahoma | 95,662 | 2,576 |  | 119,139 | 3,208 |  | 53,003 | 1,427 |  | 267,804 | 7,212 |
| Oregon | 164,145 | 3,860 |  | 104,894 | 2,467 |  | 37,604 | 884 |  | 306,643 | 7,212 |
| Pennsylvania | 198,623 | 1,787 |  | 258,704 | 2,328 |  | 344,173 | 3,097 |  | 801,500 | 7,212 |
| Puerto Rico | 3,494 | 92 |  | 57,766 | 1,517 |  | 213,281 | 5,602 |  | 274,541 | 7,212 |
| Rhode Island | 22,917 | 1,870 |  | 24,143 | 1,970 |  | 41,300 | 3,371 |  | 88,360 | 7,212 |
| South Carolina | 130,413 | 3,262 |  | 97,973 | 2,450 |  | 59,953 | 1,499 |  | 288,339 | 7,212 |
| South Dakota | 8,159 | 937 |  | 41,868 | 4,809 |  | 12,752 | 1,465 |  | 62,779 | 7,212 |
| Tennessee | 136,279 | 2,642 |  | 129,509 | 2,511 |  | 106,181 | 2,059 |  | 371,969 | 7,212 |
| Texas | 1,024,312 | 3,909 |  | 617,874 | 2,358 |  | 247,703 | 945 |  | 1,889,889 | 7,212 |
| Utah | 60,324 | 1,234 |  | 161,444 | 3,303 |  | 130,719 | 2,674 |  | 352,487 | 7,212 |
| Vermont | 10,774 | 1,621 |  | 20,290 | 3,054 |  | 16,853 | 2,536 |  | 47,917 | 7,212 |
| Virginia | 263,888 | 2,983 |  | 191,942 | 2,170 |  | 182,109 | 2,059 |  | 637,939 | 7,212 |
| Washington | 135,326 | 2,081 |  | 279,097 | 4,291 |  | 54,607 | 840 |  | 469,030 | 7,212 |
| West Virginia | 25,068 | 920 |  | 63,631 | 2,335 |  | 107,844 | 3,957 |  | 196,543 | 7,212 |
| Wisconsin | 156,751 | 2,775 |  | 179,827 | 3,184 |  | 70,720 | 1,252 |  | 407,298 | 7,212 |
| Wyoming | 32,353 | 5,167 |  | 11,305 | 1,806 |  | 1,496 | 239 |  | 45,154 | 7,212 |
| **Total** | **9,585,497** | **128,1151** |  | **8,148,568** | **144,060** |  | **6,117,414** | **102,827** |  | **23,851,479** | **375,000** |

NOTE: Sample sizes may not sum to totals due to rounding.

SOURCE: Population estimates based on 2015-2016 IPEDS 12-month Enrollment files

Table 3. NPSAS:18-AC estimated graduate-student sample sizes

| Institution sector | Population estimate | Sample size |
| --- | --- | --- |
| Public 4-year non-doctorate-granting primarily subbaccalaureate  | 276 | 78 |
| Public 4-year non-doctorate-granting primarily baccalaureate  | 175,397 | 1,510 |
| Public 4-year doctorate-granting | 1,600,792 | 7,040 |
| Private not-for-profit 4-year non-doctorate-granting | 238,137 | 2,623 |
| Private not-for-profit 4-year doctorate-granting | 1,382,473 | 6,490 |
| Private for-profit 4-year | 442,272 | 7,260 |
| **Total** | **3,839,347** | **25,000** |

NOTE: Sample sizes may not sum to totals due to rounding.

SOURCE: Population estimates based on 2015-2016 IPEDS 12-month Enrollment files

#### Sampling Students at Multiple Institutions

NCES will pursue student records from only one institution per student, and the institution sample sizes presented in this section are based on this assumption. However, using prior cohort data, we estimate that approximately 10 percent of the undergraduate student sample in NPSAS:18-AC will attend two or more institutions during the academic year. In order to create key measures of state and institution financial aid and net price for these students, NCES is considering the option of obtaining student records from all schools attended in the NPSAS year for students who were sampled from public institutions. To obtain a list of these institutions, the data collection contractor would match sampled students to the National Student Clearinghouse prior to fielding the sample. Student records data would then be requested from every postsecondary institution that each student attended in the 2017–2018 academic year. If NCES opts to pursue student records data from all institutions attended by sampled students, we will submit this revision to OMB as a change request by January 12, 2018.

#### Quality Control Checks for Lists and Sampling

The number of enrollees on each institution’s student list will be checked against the latest IPEDS full-year enrollment. The comparisons will be made for each student level: undergraduate and graduate. Based on experience with past rounds of NPSAS, we recommend that, in order for an institution’s student list to pass quality control (QC) and be moved on to student sampling, the student counts must be within 50 percent of non-imputed most recent IPEDS counts.

Institutions that fail QC will be contacted again to resolve the discrepancy and to verify that the institution coordinator who prepared the student list clearly understood our request and provided a list of the appropriate students and data items. If we determine that the initial list provided by the institution was not satisfactory, we will request a replacement list. We will proceed with selecting sample students when we have either confirmed that the list received is correct or have received a corrected list.

To improve the quality of the student lists and reduce the number of requests for replacement lists, we will inform institutions of how many students we are expecting based on IPEDS counts. This will happen as part of the list request communication with the institutions. Institutions will then be able to tell us reasons for discrepancies prior to list receipt and the IPEDS counts will act as a guide for institutions as they prepare their lists.

All statistical procedures will undergo thorough quality-control checks. The data collection contractor, has technical operating procedures in place for sampling and general programming. These procedures describe how to properly implement statistical procedures and QC checks. All statisticians will employ a checklist to ensure that all appropriate QC checks are done for student sampling.

Some specific sampling QC checks include, but are not limited to, checking that the

* institutions and students on the sampling frames all have a known, non-zero probability of selection;
* distribution of implicit stratification for institutions is reasonable; and
* number of institutions and students selected match the target sample sizes.

## Methods for Maximizing Response Rates

**NPSAS:18-AC Institutional Contacting.** Establishing and maintaining contact with sampled institutions throughout the data collection process is vital to the success of NPSAS:18-AC. Institutional participation is required in order to draw the student sample and collect institutional student records. The process in which institutions will be contacted is depicted in figure 1 and described below.

The data collection contractor will be responsible for contacting institutions on behalf of the National Center for Education Statistics (NCES), U.S. Department of Education. Each staff member will be assigned a set of institutions that is their responsibility throughout the data collection process. This allows the contractor's staff members to establish rapport with the institution staff and provides a reliable point of contact at the contractor’s call center. Staff members are thoroughly trained in basic financial aid concepts and in the purposes and requirements of the study, which helps them establish credibility with the institution staff.

The first step in the process is verification of the chief administrator’s contact information. Web searches and verification calls will be conducted as needed to confirm eligibility and confirm contact information obtained from the IPEDS header files before study information is mailed. Once the contact information is verified, we will prepare and send an information packet to the chief administrator of each sampled institution. A copy of the letter and brochure can be found in appendix D. The materials provide information about the purpose of the study and the nature of subsequent requests. Additionally, the letter acknowledges that during 2018 NCES is also collecting postsecondary transcripts from institutions attended by 2011-12 Beginning Postsecondary Students Longitudinal Study (BPS:12) sample members. A few days after the information packet is mailed, institutional contactors will conduct follow-up calls to secure study participation.

Figure 1. Flow chart of institutional contacting activities



The choice of an appropriate coordinator at each institution will be left to the chief administrator, but institution contactors will work with the chief administrator’s office in attempting to designate the most appropriate coordinator. If the institution is part of the BPS:12 transcript collection, and the coordinator selected for NPSAS:18-AC is not the same person as the BPS:12 transcript coordinator, the data collection contractor’s staff will contact the BPS:12 transcript coordinator and coordinate the addition of the new user to the Postsecondary Data Portal.

NCES and its contractor will identify relevant multi-campus systems within the sample because these systems can supply enrollment list data at the system level, minimizing burden on individual campuses. Even when it is not possible for a system to supply data from a centralized office, the system can lend support in other ways, such as by prompting institutions under its jurisdiction to participate.

The institution coordinator will receive a mailing containing study materials and, as a first step, will be asked to complete the online Institution Registration Page (IRP). There will be two versions of the letter (pp. D-9-12 in appendix D): one for coordinators who are also the coordinator for the BPS:12 transcript collection that acknowledges their role on the other collection, and one for all other coordinators that acknowledges the BPS:12 transcript collection is occurring in 2018. The primary function of the IRP is to confirm the date the institution will be able to provide the student enrollment list. Based on the information provided, a customized timeline will be created for each institution.

After the IRP is completed, the coordinator is sent a letter requesting an electronic enrollment list of all students enrolled during the academic year. The earliest enrollment lists will be due in April 2018. As described above, the lists will serve as the frame from which the student sample will be drawn. Follow-up contacts with institutions include telephone prompts, reminder emails, typically sent two weeks prior to a deadline, and touch-base emails typically sent when 3-4 weeks have passed with no outbound contact from study staff (see appendix D).

**Overlap with BPS:12 Transcript Collection.** While NPSAS:18-AC and the BPS transcript collection are separate studies collecting different types of data, it is important to note that: they will share the same data collection website, the Postsecondary Data Portal (described below); their data collection periods will overlap; and there will be many institutions that are sampled for both studies. When NPSAS:18-AC begins data collection in 2018, BPS:12 transcript collection will already be underway. As noted above, the NPSAS:18-AC contacting materials will acknowledge the BPS:12 Postsecondary Education Transcript Study (PETS) collection for institutions that are sampled for both studies. Figure 2 shows the overlap between data collection activities on both studies.

Figure 2. NPSAS:18-AC and BPS PETS data collection overlap



**Matching to Administrative Databases.** Information about NPSAS:18-AC sampled students will be matched with their data from several administrative databases. The administrative data sources for NPSAS:18-AC will be the National Student Loan Data System (NSLDS), Central Processing System (CPS) including the Free Application for Federal Student Aid (FAFSA), National Student Clearinghouse (NSC), Veterans Benefits Administration (VBA), ACT and SAT test scores, and student records obtained directly from postsecondary institutions[[9]](#footnote-9). Further details about these matches are provided in the Supporting Statement Part A (sections A.1, A.2, A.10, and A.11) and in appendix C of this submission.

**Postsecondary Data Portal (PDP).** NPSAS:18-AC data collection will utilize NCES’ Postsecondary Data Portal (PDP) website. The PDP is used across NCES postsecondary institution data collections. The flexible design of the website allows it to be used for multiple studies that are in data collection at the same time, even when those studies collect different types of data. For example, when NPSAS:18-AC begins enrollment list and student records collection in 2018, the BPS:12 transcript collection will already be underway using the PDP to collect postsecondary transcripts.

There are two types of content on the PDP: general-purpose content and study-specific content. General-purpose pages provide overview information about NCES postsecondary studies and use of the website. These pages are identified in appendix D as the “pre-login” pages (starting on page D-37). Once a user logs in, they see pages with study-specific content. These pages are identified in appendix D as the “after login” content (starting on page D-44). The NPSAS:18-AC study-specific content includes FAQs about NPSAS:18-AC and instructions for providing data (appendix D), and the student records instrument (appendix E).

Institutions see study-specific PDP content *only* for the study or studies for which they have been sampled. For example, institutions sampled for both NPSAS:18-AC *and* BPS:12 PETS will see the NPSAS:18-AC FAQs that are included in appendix D of this submission, plus the BPS PETS FAQs approved as part of the BPS:12/17 clearance package (OMB #1850-0631 v.10). Institutions that are sampled for NPSAS:18-AC only will see the NPSAS:18-AC FAQs, but not the BPS PETS FAQs.

*Data Security on the PDP.* Because of the risks associated with transmitting confidential data on the internet, the latest technology systems will be incorporated into the web application to ensure strict adherence to NCES confidentiality guidelines. The web server will include a Secure Sockets Layer (SSL) certificate and will be configured to force encrypted data transmission over the Internet. All data-entry modules on this site will be password protected, requiring the user to log in to the site before accessing confidential data. To access restricted pages containing confidential information, the user will be required to log in by entering an assigned ID number and password. Through the PDP, the primary coordinators at the institution will be able to use a “Manage Users” link, available only to them, to add and delete users, as well as reset passwords and assign roles. Each user will have a unique user name and will be assigned to one e-mail address. Upon account creation, the new user will be sent a temporary password by the PDP. Upon logging in for the first time, the new user will be required to create a new password. The system automatically will log out the user after 20 minutes of inactivity. Files uploaded to the secure website will be stored in a secure project folder that is accessible and visible to authorized project staff only.

**Student Records Collection**. After the students are sampled, the institution coordinator will receive a mailing containing a letter requesting student records data for those sampled students. The data collection contractor’s institution contacting staff will follow up after the mailing to ensure receipt of the package and to answer any questions. Follow-up contacts include telephone prompts, reminder emails, typically sent two weeks prior to a deadline, and touch-base emails typically sent when 3-4 weeks have passed with no outbound contact from study staff. Contact materials are included in appendix D. Staff will also be available by telephone and e-mail to help when institution staff have questions or encounter problems.

The following options will be offered to institutions for collecting student records:

* *Web-based data entry interface*. The web-based data entry interface allows the coordinator to enter data by student, by year.
* *Excel workbook*. An Excel workbook will be created for each institution and will be preloaded with each sampled student’s ID, name, date of birth, and last four digits of SSN (if available). To facilitate simultaneous data entry by different offices within the institution, the workbook contains a separate worksheet for each of the following topic areas: Student Information, Financial Aid, Enrollment, and Budget. The user will download the Excel worksheet from the PDP, enter the data, and then upload the data. Validation checks will occur both within Excel as data are entered and when the data are uploaded. Data will be imported into the web application so that institution staff can check their submission for quality control purposes.
* *CSV (comma separated values) file*. Institutions with the means to export data from their internal database systems to a flat file may use this method of supplying student records. Institutions that select this method will be provided with detailed import specifications, and all data uploading will occur through the PDP. Like the Excel workbook option, data will be imported into the web application so that institution staff can check their submission before finalizing.

The instrument content is provided in appendix E.

## Tests of Procedures or Methods

There will be no tests of procedures or methods as part of NPSAS:18-AC.

## Reviewing Statisticians and Individuals Responsible for Designing and Conducting the Study

NPSAS:18-AC is being conducted by NCES. The following statisticians at NCES are responsible for the statistical aspects of the study: Dr. Sean Simone, Dr. Tracy Hunt-White, Dr. David Richards, Mr. Ted Socha, Dr. Elise Christopher, and Dr. Gail Mulligan. NCES’s prime contractor for NPSAS:18-AC is RTI International (Contract# ED-IES-13-C-0070), and subcontractors include Coffey Consulting; HR Directions; KForce Government Solutions, Inc.; Research Support Services; and Strategic Communications, Inc. Dr. Anthony Jones is a consultant on the study. The following staff members at RTI are working on the statistical aspects of the study design: Mr. Peter Siegel, Dr. Jennifer Wine, Ms. Ruby Johnson, and Dr. T. Austin Lacy. Principal professional RTI staff, not listed above, who are assigned to the study include Ms. Kristin Dudley, Ms. Jamie Wescott, Ms. Tiffany Mattox, Mr. Austin Caperton, Mr. Johnathan Conzelmann, and Ms. Nichole Smith.

1. The seven U.S service academies are 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. [↑](#footnote-ref-1)
2. A preliminary sampling frame has been created using 2015-16 IPEDS 12-month enrollment data, and population estimates in tables 1-3 are based on this preliminary frame. The frame will be recreated with the most up-to-date IPEDS data prior to sample selection. [↑](#footnote-ref-2)
3. The public 4-year institution stratum includes all eligible institutions that IPEDS classifies as public 4-year institutions, including those that are non–doctorate-granting, primarily subbaccalaureate institutions. [↑](#footnote-ref-3)
4. From this point forward, the word “state” will refer to the 50 states, the District of Columbia, and Puerto Rico. [↑](#footnote-ref-4)
5. Based on the latest IPEDS data, there are only three states (Idaho, Mississippi, and Nebraska) that have between 31 and 36 institutions in the “other” stratum and will be affected by this cutoff. [↑](#footnote-ref-5)
6. Folsom, R.E., Potter, F.J., and Williams, S.R. (1987). Notes on a Composite Size Measure for Self-Weighting Samples in Multiple Domains*.* In *Proceedings of the Section on Survey Research Methods of the American Statistical Association*. Alexandria, VA: American Statistical Association (pp. 792–796). [↑](#footnote-ref-6)
7. A Hispanic-serving institutions indicator is no longer available from IPEDS, so we will create an indicator following the logic that was previously used for IPEDS. [↑](#footnote-ref-7)
8. We will decide what, if any, collapsing of the categories is needed for the purposes of implicit stratification. [↑](#footnote-ref-8)
9. Data from the NSC, VBA, ACT, and SAT scores are pending contracts or agreements with those organizations. If NCES is unable to secure an agreement with any of these organizations, a change memo will be submitted by December 17, 2018. [↑](#footnote-ref-9)