

Chapter 3

Outcomes of Data Collection

This chapter presents the overall outcomes of the study procedures described in Chapter 2, including institutional participation rates and “yield” rates for each of the sources of student data accessed through these procedures. Factors related to these outcomes, including the results of planned evaluations, are examined further in subsequent chapters of this report.

3.1 Institutional Participation

Only 11 (1 percent) of the 1,083¹ institutions initially selected for the full-scale study were found to be ineligible for NPSAS:2000. The percentage ineligible was substantially less than in previous NPSAS rounds because institutions not participating in Title IV aid programs were excluded from eligibility in NPSAS:2000. Of the 11 NPSAS-ineligible sampled institutions, 7 failed to meet one or more of the NPSAS institutional eligibility criteria specified in Chapter 2, 2 closed between the time sampling frame information was collected and institutions were first contacted about participation in the study, and 2 were duplicated because of mergers with other sampled institutions. Institutional eligibility rates are shown in table 3-1, by institutional level of offering, control, and sector.² Institutional eligibility varied considerably with level of offering and control; it was lowest for less-than-2-year institutions and for the private for-profit institutions. These differences were expected, and are consistent with results from prior NPSAS rounds.

The 1,072 eligible sample institutions were asked to participate in NPSAS:2000 by (1) providing comprehensive lists of students for sample selection and (2) assisting in abstracting data from student records for sampled students. Hence, the potential for institutional nonresponse existed at these two points in the survey process. Table 3-1 shows that 999 (93.2 percent) of the 1,072 eligible sample institutions provided a student enrollment list or database that could be used for sample selection.³ List provision rates (among eligible institutions) varied by type of institution considered.

¹ During institutional contacting, it was discovered that part of one institution had recently split off and formed a separate institution. Both institutions were considered to be in the sample and therefore increased the sample size from 1,082 to 1,083.

² In this and subsequent tables, institutional classification errors on the sampling frame were corrected; consequently, counts within corrected classifications differ somewhat from those in Chapter 2 based on sampling strata.

³ One institution provided only a baccalaureate list, which was not sufficient for sample selection.

Table 3-1.—Overall institutional eligibility and enrollment list participation rates

Type of institution ¹	Institutions sampled ²	Eligible institutions ³		Institutions providing lists		
		Number	Percent ⁴	Number	Percent ⁵ unweighted	Percent ⁵ weighted
All institutions	1,083	1,072	99.0	999	93.2	91.3
Institutional level						
Less-than-2-year	123	117	95.1	103	88.0	87.5
2-year	247	244	98.8	232	95.1	95.9
4-year non-doctorate-granting	317	315	99.4	292	92.7	86.1
4-year doctorate-granting	396	396	100.0	372	93.9	96.2
Institutional control						
Public	580	576	99.3	545	94.6	94.4
Private not-for-profit	376	371	98.7	339	91.4	88.6
Private for-profit	127	125	98.4	115	92.0	91.0
Institutional sector						
Public less-than-2-year	34	32	94.1	28	87.5	79.1
Public 2-year	198	196	99.0	185	94.4	96.4
Public 4-year non-doctorate-granting	127	127	100.0	123	96.9	94.0
Public 4-year doctorate-granting	221	221	100.0	209	94.6	95.0
Private not-for-profit 2-year or less	35	32	91.4	30	93.8	97.6
Private not-for-profit 4-year non-doctorate-granting	173	171	98.8	153	89.5	81.6
Private not-for-profit 4-year doctorate granting	168	168	100.0	156	92.9	96.5
Private for-profit less-than-2-year	77	75	97.4	67	89.3	88.4
Private for-profit 2-year or more	50	50	100.0	48	96.0	94.8

¹Institutional classifications were verified by the institutions to correct classification errors on the sampling frame.

²During institutional contacting, we discovered that part of one school had recently split off and formed a separate institution. Both institutions are included.

³Among the 11 sampled institutions considered ineligible, 2 had closed since the sampling frame reference period, 2 were duplicates with other selected institutions, and the remaining 7 failed to meet one or more of the criteria for institutional NPSAS eligibility.

⁴Percentages are based on the number of institutions sampled within the row under consideration.

⁵Percentages are based on the number of eligible institutions sampled within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Weighted participation rates were calculated based on the institutional probabilities of selection and are also shown in table 3-1.⁴ The overall weighted participation rate of 91.3 percent and the weighted rates for most institution categorizations in table 3-1 are similar to the unweighted rates. However, NPSAS:2000 was designed to produce efficient estimates only at the student level. Institutions were selected with probabilities proportional to size; therefore, weighted institution-level estimates are subject to a high level of sampling variation.

⁴ The weighted response rates can be interpreted as the estimated percentages of institutions in the population that would have provided a usable student sampling list, if asked.

3.2 Matching to the Central Processing System

Table 3-2 summarizes the results of matching and downloading student data from the Department of Education's Central Processing System (CPS). The CPS contains data provided to ED by students and their families when they complete the Free Application for Federal Student Aid (FAFSA). The matching process required the use of the Federal Data Request (FDR) component of ED's EDConnect software. This component allowed RTI staff to dial into the CPS mainframe computer and to upload/download files on a regular basis. Submitting a record to the CPS required a valid Social Security number and a valid last name. A successful match required that the student have a valid application record within the CPS database.

The initial CPS matching process occurred after the student sample had been selected for an institution, but before institutional record (CADE) data collection activities had begun. This matching was against the CPS data for the 1999–2000 financial aid year. As shown in table 3-2, not all sample students were submitted to the CPS for matching. This was primarily because some institutions were unwilling or unable to provide valid Social Security numbers and last names. Following CADE, a small number of student cases that had not previously matched successfully to CPS were resubmitted, based on either a newly obtained Social Security number or the evidence in the institution records that the student had, in fact, applied for federal student aid for the 1999–2000 year. These matching processes included the matching of 1,141 cases to the CPS that were subsequently identified as ineligible for NPSAS, because the sample members did not meet all of the study eligibility criteria (e.g., not enrolled during the study year).

As can be seen from table 3-2, the overall matching rate for the 1999–2000 CPS data was 49 percent. Federal aid applications at public community colleges and technical institutions were expected to be proportionately less than in other sectors. Moreover, first-professional students tend to rely more on federal aid (primarily loans) whereas graduate students generally rely on institutional aid (teaching and research assistantships).

The NPSAS:2000 sample students were also matched to the 2000–2001 CPS files. It was expected that fewer sample students would successfully match to the 2000–2001 CPS files, primarily due to students who received degrees or certificates during the 1999–2000 NPSAS year and exited postsecondary education. Approximately 500 cases were excluded from matching to the 2000–2001 CPS files, because SSNs required for such matching were not available until after completion of these activities. Table 3-2 shows that, overall, 52.7 percent of sample students matched to either CPS 1999–2000 or CPS 2000–2001, and 25.3 percent matched to both data files.

The proportion of the sample that successfully matched to the CPS 2000–2001 (28.9 percent) was somewhat lower than the corresponding match rate to CPS 1996–97 obtained during the NPSAS:96 study (36.3 percent). This result is not surprising, because the NPSAS:96 sample included a large number of beginning postsecondary students, who were likely to still be enrolled in postsecondary education the following year, whereas the NPSAS:2000 sample included a proportionately larger number of baccalaureate recipients, who were more likely to be leaving postsecondary education the following year.

Table 3-2.—Matching sample students to CPS data for 1999–2000 and 2000–2001, by selected institutional and student classifications

Type of student ¹	Eligible students ²	Matched to 1999–2000		Matched to 2000–2001 ³		Matched to both years		Matched to either year	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
All students	68,925	33,831	49.1	19,942	28.9	17,436	25.3	36,337	52.7
Institution level									
Less-than-2-year	6,478	4,265	65.8	1,763	27.2	1,616	24.9	4,412	68.1
2-year	13,145	5,502	41.9	3,754	28.6	3,034	23.1	6,222	47.3
4-year non-doctorate-granting	18,245	9,895	54.2	5,735	31.4	5,176	28.4	10,454	57.3
4-year doctorate-granting	31,057	14,169	45.6	8,690	28.0	7,610	24.5	15,249	49.1
Institutional control									
Public	43,445	18,508	42.6	11,896	27.4	10,044	23.1	20,360	46.9
Private not-for-profit	18,700	10,287	55.0	5,922	31.7	5,399	28.9	10,810	57.8
Private for-profit	6,780	5,036	74.3	2,124	31.3	1,993	29.4	5,167	76.2
Institutional sector									
Public less-than-2-year	1,502	529	35.2	249	16.6	198	13.2	580	38.6
Public 2-year	10,593	3,583	33.8	2,724	25.7	2,088	19.7	4,219	39.8
Public 4-year non-doctorate-granting	9,840	4,798	48.8	2,980	30.3	2,628	26.7	5,150	52.3
Public 4-year doctorate-granting	21,510	9,598	44.6	5,943	27.6	5,130	23.8	10,411	48.4
Private not-for-profit 2-year or less	1,770	1,223	69.1	719	40.6	648	36.6	1,294	73.1
Private not-for-profit 4-year non-doctorate-granting	7,751	4,636	59.8	2,514	32.4	2,313	29.8	4,837	62.4
Private not-for-profit 4-year doctorate-granting	9,179	4,428	48.2	2,689	29.3	2,438	26.6	4,679	51.0
Private for-profit less-than-2-year	4,364	3,298	75.6	1,302	29.8	1,217	27.9	3,383	77.5
Private for profit 2-year or more	2,416	1,738	71.9	822	34.0	776	32.1	1,784	73.8
Student level									
Total undergraduate	56,069	29,874	53.3	17,466	31.2	15,303	27.3	32,037	57.1
B&B	15,263	7,925	51.9	2,095	13.7	1,641	10.8	8,379	54.9
Other undergraduate	40,806	21,949	53.8	15,371	37.7	13,662	33.5	23,658	58.0
Graduate	11,538	3,001	26.0	1,827	15.8	1,518	13.2	3,310	28.7
First-professional	1,318	956	72.5	649	49.2	615	46.7	990	75.1

¹Both institutional and student classifications were verified to correct classification errors on the sampling frame.

²Includes all sampled students for whom *apparently* legitimate Social Security numbers, obtained either before or during CADE, were submitted to CPS for matching for 1999–2000. This figure includes approximately 500 cases who were rematched to CPS 1999–2000 because a Social Security number was obtained while ISIR data were being collected in CADE.

³ Only the original set of cases (having a valid Social Security number prior to CADE) was sent to CPS 2000–2001. This figure excludes approximately 500 cases that were sent for rematching to CPS 1999–2000 because a Social Security number was obtained while ISIR data were being collected in CADE.

NOTE: All percentages are unweighted and based on the number of eligible students within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

3.3 Abstracting Students' Institutional Records

As previously indicated, 999 of the 1,072 eligible sample institutions provided a student enrollment list or database that could be used for sample selection. These institutions were therefore eligible to participate in the student record abstraction phase of the study referred to as CADE (computer-assisted data entry). Table 3-3 shows the weighted and unweighted CADE participation rates by several domains of interest. NPSAS:2000 included four CADE abstraction methods—Web, data file, field interviewer, and abbreviated CADE—each of which is described below.

At the institution level, an institution was classified as a participating institution if sufficient data were obtained for at least one sample student to be classified as a CADE record respondent. Only one institution provided CADE data for a single sample member.

3.3.1 Web-CADE

Both NPSAS:93 and NPSAS:96 included a computer-based option for NPSAS institutions to provide student record data. This has traditionally been known as “self-CADE.” For the first time, NPSAS:2000 employed a Web-based methodology for obtaining data from student records. Figure 3-1 presents the home page of the NPSAS CADE Web site. As can be seen, visitors to the Web site were provided with links to frequently asked questions, information about the study, and a mechanism to log into the CADE system. Each Institutional Coordinator was mailed a unique CADE identifier, and then was given a password by phone. The login page, and all further-nested pages within the CADE application, were protected via a Secure Socket Layer (SSL) encryption safeguard. Further security was provided by an automatic “time out” feature, through which the user was automatically logged out of the CADE application if the system was idle for 20 minutes or longer. The system did not use any persistent “cookies,” thus adhering to ED’s privacy policy. Selected Central Processing System (CPS) data were preloaded into the web-CADE application before data collection began to reduce data entry burden for institution staff.

In total, 707 of the 999 CADE institutions agreed to provide student data via Web-CADE. Ultimately, 694 (74 percent) of the 937 institutions that provided CADE data did so via the NPSAS CADE Web site. This proportion was somewhat higher than anticipated, since in NPSAS:96, 57 percent of institutions completed “self-CADE.” However, given the availability of Web browsers and access to the Internet within the postsecondary education environment, it is assumed that the overall familiarity with the Web as a communication medium led to this increase.

**Table 3-3.—Institution-level rates for obtaining institutional record data (CADE),
by institutional sector and method of data abstraction**

Type of institution ¹	Number of institutions providing lists	Institutions providing CADE ²		
		Number	Unweighted percent ³	Weighted percent ³
All institutions	999	937	93.8	95.0
Institution level				
Less-than-2-year	103	89	86.4	91.1
2-year	232	222	95.7	98.6
4-year non-doctorate-granting	292	274	93.8	94.6
4-year doctorate-granting	372	352	94.6	94.1
Institutional control				
Public	545	514	94.3	95.8
Private not-for-profit	339	317	93.5	93.6
Private for-profit	115	106	92.2	95.6
Institutional sector				
Public less-than-2-year	28	25	89.3	88.2
Public 2-year	185	176	95.1	97.3
Public 4-year non-doctorate-granting	123	117	95.1	95.4
Public 4-year doctorate-granting	209	196	93.8	93.8
Private not-for-profit 2-year or less	30	27	90.0	93.8
Private not-for-profit 4-year non-doctorate-granting	153	141	92.2	93.3
Private not-for-profit 4-year doctorate-granting	156	149	95.5	94.0
Private for-profit less-than-2-year	67	58	86.6	92.4
Private for profit 2-year or more	48	48	100.0	100.0
Abstraction method				
Web	707	694	98.2	97.5
Data file	71	29	40.8	33.0
Field interviewer	221	214	96.8	98.9

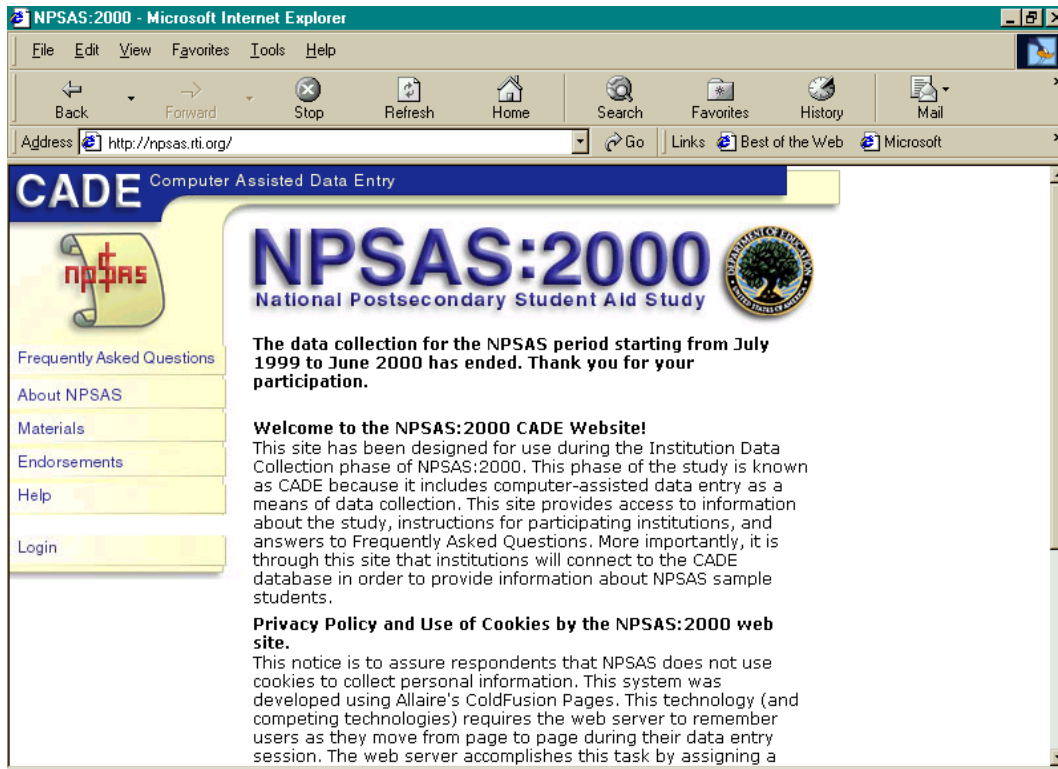
¹Institutional classifications were verified by participating institutions to correct classification errors on the sampling frame.

²Provided institutional record data for at least one sampled student.

³Percentages are based on the number of eligible institutions that provided a list for sampling.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Figure 3-1.—NPSAS CADE home page



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

3.3.2 Datafile-CADE

As an alternative to keying data into the Web-CADE application, institutions were given detailed specifications for developing a set of data files containing student record data. Twenty-nine institutions, predominantly 4-year institutions, opted for this method of CADE abstraction. The specifications were customized for each institution so that they would have their own coding schemes for reporting various types of institution and state aid (the names of which were obtained from the Institutional Coordinator during the institution contacting phase of the study). Eight data files, including student-level, term-level, and aid award-level files, were required from each datafile-CADE institution in order to accurately match the identical data structure of the database underlying the Web-CADE application. Upon completion of the datafile-CADE file preparation, institutions submitted their data files back to RTI via the Web-CADE application. Upon submission, an automated quality control system processed the files and instantly reported back to the institutions any anomalies in the data (e.g., incorrect student ID variables, lack of term-level data for sample students, incorrect file names, etc.).

3.3.3 Field-CADE

Consistent with procedures implemented in both NPSAS:93 and NPSAS:96, institutions were given the option of having an RTI-employed field data collector visit the institution and provide student record data-entry services at no expense to the institution. This CADE abstraction method is referred to as field-CADE. In total, 214 institutions opted for field-CADE. In most instances, field data collectors were able to complete the data collection activities in 1 week or less, although certain institutions with a relatively high number of sample students required as much as 2 weeks of field data collector activity to complete the collection.

Field data collectors used a laptop-based CADE system for entering data abstracted from student records. The system included real-time edit features to help detect out-of-range or inconsistent entries. Data previously obtained from the Central Processing System were preloaded into the system before data collection began, to reduce the data collectors' level of effort.

3.3.4 Abbreviated CADE

A fourth method of CADE abstraction was used for the first time in NPSAS:2000. This procedure, known as "abbreviated CADE," was intended as a last-ditch effort to obtain participation by sample institutions. Essentially, institutions that had not provided an enrollment list by late fall of 2000 were given the option of being excluded from the separate, complete CADE process. Instead, they were allowed to provide an enhanced enrollment list containing not only the data necessary for sampling, but also selected student attributes and locating data.⁵ This set of 17 variables was considered sufficient for use in initializing the telephone interviewing system for the sample students, thus providing an opportunity to interview the students. These data were considered insufficient for defining the student-level case as a CADE respondent. Although not shown in table 3-3, 40 institutions chose to participate in this manner; these instructions are included in the "data file" count.

Rates for obtaining CADE data for the NPSAS:2000 sample students are shown in table 3-4. Again, both weighted and unweighted results are shown. The CADE data collection phase of the study was restricted to those students enrolled in the institutions providing an enrollment list from which a student sample could be selected. About 5,800 of the 70,200 sampled were subsequently determined not to meet the study eligibility requirements. Hence, the eligible CADE student sample consisted of about 64,500 students.

⁵ The 17 variables requested on the enrollment list for purposes of classifying an institution as participating in the study included student SSN, first name, last name, middle initial, student level, local phone and address variables, permanent phone and address variables, IPEDS ID of school attended, bachelor's degree recipient status, total institution grant aid, total state grant aid, and student major/field of study.

Table 3-4.—Student-level rates for obtaining institutional record data (CADE), by selected institutional and student classifications

Type of student ¹	Number of eligible students ²	CADE completion		
		Number ³	Unweighted percent ⁴	Weighted percent ⁴
All students	64,471	59,290	92	97
Institution level				
Less-than-2-year	5,810	4,640	80	86
2-year	11,548	10,970	95	95
4-year non-doctorate-granting	17,383	16,280	94	92
4-year doctorate-granting	29,730	27,400	92	94
Institutional control				
Public	39,984	37,200	93	93
Private not-for-profit	17,995	16,440	91	94
Private for-profit	6,492	5,650	87	94
Institutional sector				
Public less-than-2-year	1,169	910	78	82
Public 2-year	9,167	8,690	95	94
Public 4-year non-doctorate-granting	9,132	8,680	95	91
Public 4-year doctorate-granting	20,516	18,920	92	93
Private not-for-profit 2-year or less	1,659	1,480	89	97
Private not-for-profit 4-year non-doctorate-granting	7,481	6,840	91	92
Private not-for-profit 4-year doctorate-granting	8,855	8,130	92	95
Private for-profit less-than-2-year	4,096	3,320	81	87
Private for profit 2-year or more	2,396	2,330	97	98
Student level				
Undergraduate	52,033	48,010	92	94
Graduate	11,155	10,150	91	92
First-professional	1,283	1,130	88	91
Abstraction method ⁵				
Web	42,421	41,130	97	99
Data file ⁵	3,592	2,940	82	86
Field interviewer	16,016	15,210	95	96

¹Institutional classifications were verified by participating institutions to correct classification errors on the sampling frame.

²Includes all 70,232 sampled students minus the 5,761 found to be NPSAS-ineligible at any stage of data collection.

³A student was classified as a CADE record completion if key demographic, enrollment, and financial aid data were provided.

⁴Percentages are based on eligible students within the row under consideration.

⁵Excludes 2,442 students with abbreviated CADE information.

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

A student record was considered to represent a CADE record respondent if it met the following criteria:

- the CADE financial aid gate question was answered (Yes or No, including derived answer from abbreviated CADE cases), AND
- some amount of CADE enrollment data was provided (as indicated by at least one of the 12 monthly enrollment indicators being nonzero), AND
- the CADE student characteristics section had at least one valid response for the set of items (date of birth, marital status, race, sex). If the case was a CPS match, it was considered to have successfully met this criterion.

Overall, the unweighted CADE student record response rate (the percentage of study-eligible cases for whom a sufficiently complete CADE record was obtained) was 92 percent. The rate was lowest among students from public less-than-2-year institutions (78 percent) and highest among students from private for-profit 2-year-or-more institutions (97 percent). As was previously mentioned, institutions classified as abstracted through abbreviated CADE did not actually complete the record abstraction process. Rather, these institutions provided a more thorough set of data as part of the enrollment list. However, this set of 17 variables was not considered sufficient for a student to be considered a CADE record respondent.

3.4 Matching to NSLDS for Loan and Grant Data

Results of the National Student Loan Data System (NSLDS) attempted loan matching are shown in table 3-5. Because NSLDS files are historical, information about receipt of such loans was available not only for the NPSAS year but also for prior years of postsecondary education (where applicable); therefore the table shows match rates for both the NPSAS year and historically. In total, 21,410 study respondents (34.9 percent of those submitted) were matched for the NPSAS year. This is consistent with the NPSAS:96 result of 34.2 percent. Over all years, 34,089 study respondents (55.6 percent) were matched, including both undergraduate and graduate students.

Table 3-5.—Results of NSLDS loan matching, by selected institutional and student classifications

Type of student ¹	Study respondents ²	Matched to loan data ³			
		Loan during NPSAS year		Loan historically ⁴	
		Number	Percent	Number	Percent
All students	61,330	21,410	35	34,090	56
Institution level					
Less-than-2-year	5,080	1,840	36	2,860	56
2-year	11,150	2,320	21	4,460	40
4-year non-doctorate-granting	16,760	6,700	40	10,170	61
4-year doctorate-granting	28,340	10,550	37	16,590	59
Institutional control					
Public	38,570	11,140	29	19,300	50
Private not-for-profit	16,910	7,330	43	10,630	63
Private for-profit	5,850	2,940	50	4,160	71
Institutional sector					
Public less-than-2-year	1,050	90	8	280	27
Public 2-year	8,910	1,030	12	2,810	32
Public 4-year non-doctorate-granting	8,940	3,040	34	5,010	56
Public 4-year doctorate-granting	19,680	6,990	36	11,200	57
Private not-for-profit 2-year or less	1,470	630	43	860	58
Private not-for-profit 4-year non-doctorate-granting	7,130	3,260	46	4,640	65
Private not-for-profit 4-year doctorate-granting	8,320	3,440	41	5,130	62
Private for-profit less-than-2-year	3,590	1,600	45	2,360	66
Private for profit 2-year or more	2,260	1,340	59	1,800	80
Student level					
Undergraduate	49,620	18,140	37	27,360	55
Graduate	10,510	2,430	23	5,760	55
First-professional	1,200	840	70	980	81

¹Both institutional and student classifications were verified to correct classification errors on the sampling frame.

²Includes study respondents for whom an *apparently* legitimate Social Security number was available. Study respondents were defined as eligible sample students for whom completed CADE and/or student interview data were obtained.

³The loan transaction matches for any year do not necessarily reflect a loan during the year. They may represent a consolidation or cancellation transaction.

⁴Over all years of postsecondary education reflected in the NSLDS files.

NOTE: To protect confidentiality, some numbers have been rounded. All percentages are unweighted and based on the total number of study respondents within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

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For NSLDS matches for the NPSAS year and within the student classifications considered, the relative numbers of matches followed a pattern quite similar to that seen for the CPS matching. The table shows low match rates for graduate students and for those in public institutions with program offerings of 2 years or less, but high match rates for first professional students and those in private for-profit institutions. This was not surprising given the expectation that federal aid applications at public community colleges and technical institutions would be less than for other types of institutions. In addition, graduate students generally depend on institutional aid such as assistantships, while first-professional students tend to depend primarily on federal loans.

Results of attempted matches to the NSLDS Pell grant data are shown in table 3-6. Matches were obtained for 13,500 study respondents (22 percent of those submitted) for the NPSAS year.

Table 3-6.—Results of NSLDS Pell grant matching, by selected institutional and student classifications

Type of student ¹	Study respondents ²	Matched to Pell data			
		Grants during NPSAS year		Grant historically ³	
		Number	Percent	Number	Percent
All students	61,330	13,550	22	21,430	35
Institution level					
Less-than-2-year	5,080	2,670	52	3,180	63
2-year	11,150	2,750	25	4,090	37
4-year non-doctorate-granting	16,760	3,990	24	6,370	38
4-year doctorate-granting	28,340	4,150	15	7,790	28
Institutional control					
Public	38,570	7,320	19	12,510	32
Private not-for-profit	16,910	3,360	20	5,390	32
Private for-profit	5,850	3,870	66	3,520	60
Institutional sector					
Public less-than-2-year	1,050	280	27	390	37
Public 2-year	8,910	1,760	20	2,830	32
Public 4-year non-doctorate-granting	8,940	2,070	23	3,430	38
Public 4-year doctorate-granting	19,680	3,210	16	5,870	30
Private not-for-profit 2-year or less	1,470	690	47	880	60
Private not-for-profit 4-year non-doctorate-granting	7,130	1,740	24	2,670	38
Private not-for-profit 4-year doctorate granting	8,320	920	11	1,840	22
Private for-profit less-than-2-year	3,590	2,090	58	2,440	68
Private for profit 2-year or more	2,260	780	35	1,080	48
Student level					
Undergraduate	49,620	13,490	27	19,750	40
Graduate	10,510	60	1	1,410	13
First-professional	1,200	10	1	260	22

¹Both institutional and student classifications were verified to correct classification errors on the sampling frame.

²Includes study respondents for whom an *apparently* legitimate Social Security number was available. Study respondents were defined as eligible sample students for whom completed CADE and/or student interview data were obtained.

³Over all years of postsecondary education reflected in the NSLDS files.

NOTE: To protect confidentiality, some numbers have been rounded. All percentages are unweighted and based on the total number of study respondents within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

This is consistent with the NPSAS:96 result of 22 percent. Over all years, 21,400 study respondents (35 percent) were matched. A handful of the matches for the NPSAS year involved graduate and first-professional students, who were not eligible for this form of financial aid. However, the matched graduate and first-professional sample members were undergraduates at some time during the year (and as such were eligible for this type of aid during the year). Consistent with expectations, the Pell match rate was highest among students at private for-profit less-than-2-year institutions.

3.5 Matching to ACT and SAT Data

Interview data pertaining to standard test scores have typically been characterized by high rates of nonresponse. To overcome this problem and provide this additional information to the student characteristics profile, student records were matched to the ACT and SAT files. Results of the ACT and SAT score matching are shown in table 3-7. A total of 16,500 unique cases matched to ACT data in the years 1991–92 through 1999–2000 (27 percent). If a student matched to more than one year, only the most recent test year information was kept on the file. SAT matches were acquired for 14,700 of the respondent cases (24 percent). This matching was conducted for test years 1995 through 1999. Similar to the ACT, if a student matched to more than one SAT test year, only the most recent record was kept in the file.

The highest rate of matches to the ACT file occurred with the public, 4-year institutions. These are the types of institutions that typically require the ACT, particularly in the middle part of the country. Students from schools with program offerings of 2 years or less experienced the lowest match rates. These students usually do not need to take the ACT. Another difference in match rates occurred among student levels. The graduate student match rate was much lower than the first-professional rate, and one would expect these to be comparable. This may be explained by looking at the average student age within the student levels. The first-professional average age was 27.8 years, while the graduate average age was 33.4 years. The graduate students were, on average, 5.6 years older than the first-professional students were. Therefore, the much lower rate for graduate students probably occurred because the matches of graduate test records did not extend far enough back in time to capture them.

The highest match rate to the SAT file was for students at schools with program offerings of 4 years. The rates were lowest for the 2-year-or-less institutions. In addition, rates were fairly low for the private for-profit schools. Consistent with the ACT matches, these rates reflect the type of institutions requiring the SAT. The low graduate and first-professional rates (as well as the difference between those two) can probably be explained by the average age differences among the different student levels, as described in the ACT discussion above.

3.6 Student Locating and Interviewing

Collecting data directly from student sample members in NPSAS:2000 consisted of three sequential steps: locating (identifying an initial telephone number or address at which the sample member could be reached), contacting (making the necessary attempts to reach the sample member), and interviewing (convincing the sample member to cooperate and participate in the interview). The amount of time and level of effort required to complete these steps with any

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given sample member varied considerably. Some sample members were reached and interviewed on the first attempt at contact. Others required considerable tracing (contacting of parents, former roommates, etc.) before they were successfully located and interviewed. Student interviewing for NPSAS was also complicated by the two-tiered study design (separate institutional and student data collections) and the varying rates of cooperation at the institution level. As a result, not all cases were available to be worked at the start of CATI data collection. Rather, the cases flowed into CATI after student lists were obtained from schools, students were sampled from the lists, and CADE information (particularly locating information) was collected from the participating institutions.

Figure 3-2 illustrates outcomes of student locating and interviewing and related case-resolution activities. Student data were collected primarily by computer-assisted telephone interview (CATI), with follow-up of nonrespondents by computer-assisted personal interview (CAPI) and/or self-administered mail survey. The data collection period ran from May 22, 2000, to February 28, 2001.

One week before a student case was released into CATI production, sample members were sent an advance mailing, which included a cover letter and study leaflet. These letters were mailed in batches twice a week as new cases were loaded into CATI to be worked. Letters were mailed to 64,800 sample. Additionally, 6,300 sample members requested that a letter be remailed during data collection, because they had either misplaced the letter or not received it.

Attempts were made to locate 66,300 of the original 70,200 sampled (3,300 cases were determined to be ineligible for NPSAS during CADE and 640 were sampled but not loaded into CATI because they had no locating/tracing information and/or such information was obtained too late). Overall, 54,400 (82 percent), including CATI ineligibles and exclusions, of the initial CATI sample were located; 12,000 (18 percent) of the original sample were not located. Of those located, 44,500 completed all or part of the interview; 6,500 were located, but did not complete the interview; 2,500 were determined to be ineligible for NPSAS based on their responses to the interview; and, about 900 were considered exclusion cases.⁶

Student interviewing results for those students who were located are also shown schematically in figure 3-2. Approximately 40,400 completed the entire interview, while 3,300 completed either a paper-copy mail questionnaire or an “abbreviated” interview (that is, a version of the questionnaire containing key data elements), and 750 completed only part (including at least section A) of the NPSAS interview.⁷

⁶ Exclusion cases consisted of students who were out of the country, unavailable during survey period, institutionalized, incapacitated or who had a language barrier.

⁷ A large percentage (2,450 of 3,300) of the “abbreviated” interviews were conducted with Spanish-speaking-only sample members.

Table 3-7.—Results of ACT and SAT score matching, by selected institutional and student classifications

Type of student ¹	Study respondents ²	Matched to ACT ³		Matched to SAT ⁴		Matched to Either ACT and SAT	
		Number	Percent ⁵	Number	Percent ⁵	Number	Percent ⁵
All students	61,330	16,540	27	14,680	24	26,180	43
Institution level							
Less-than-2-year	5,080	560	11	280	6	770	15
2-year	11,150	2,150	19	1,610	15	3,330	30
4-year non-doctorate-granting	16,760	4,890	29	4,490	27	8,100	48
4-year doctorate-granting	28,340	8,940	32	8,290	29	13,980	49
Institutional control							
Public	38,570	11,630	30	9,160	24	17,540	46
Private not-for-profit	16,910	4,240	25	5,080	30	7,630	45
Private for-profit	5,850	670	12	440	8	1,010	17
Institutional sector							
Public less-than-2-year	1,050	160	15	20	2	180	17
Public 2-year	8,910	1,680	19	1,240	14	2,570	29
Public 4-year non-doctorate-granting	8,940	2,750	31	2,310	26	4,440	50
Public 4-year doctorate-granting	19,680	7,050	36	5,580	28	10,350	53
Private not-for-profit 2-year or less	1,470	350	24	270	19	540	37
Private not-for-profit 4-year non-doctorate-granting	7,130	2,010	28	2,100	30	3,470	49
Private not-for-profit 4-year doctorate-granting	8,320	1,880	23	2,710	33	3,620	44
Private for-profit less-than-2-year	3,590	360	10	220	6	530	15
Private for profit 2-year or more	2,260	310	14	220	10	490	22
Student level							
Undergraduate	49,620	15,410	31	14,330	29	24,840	50
Graduate	10,510	840	8	260	2	1,000	10
First-professional	1,200	290	24	90	8	340	28

¹Both institutional and student classifications were verified to correct classification errors on the sampling frame.

²Includes study respondents for whom an apparently legitimate Social Security number was available. Study respondents were defined as eligible sample students for whom completed CADE and/or student interview data were obtained.

³Matching attempts included ACT's taken between 1991–1992 and 1999–2000.

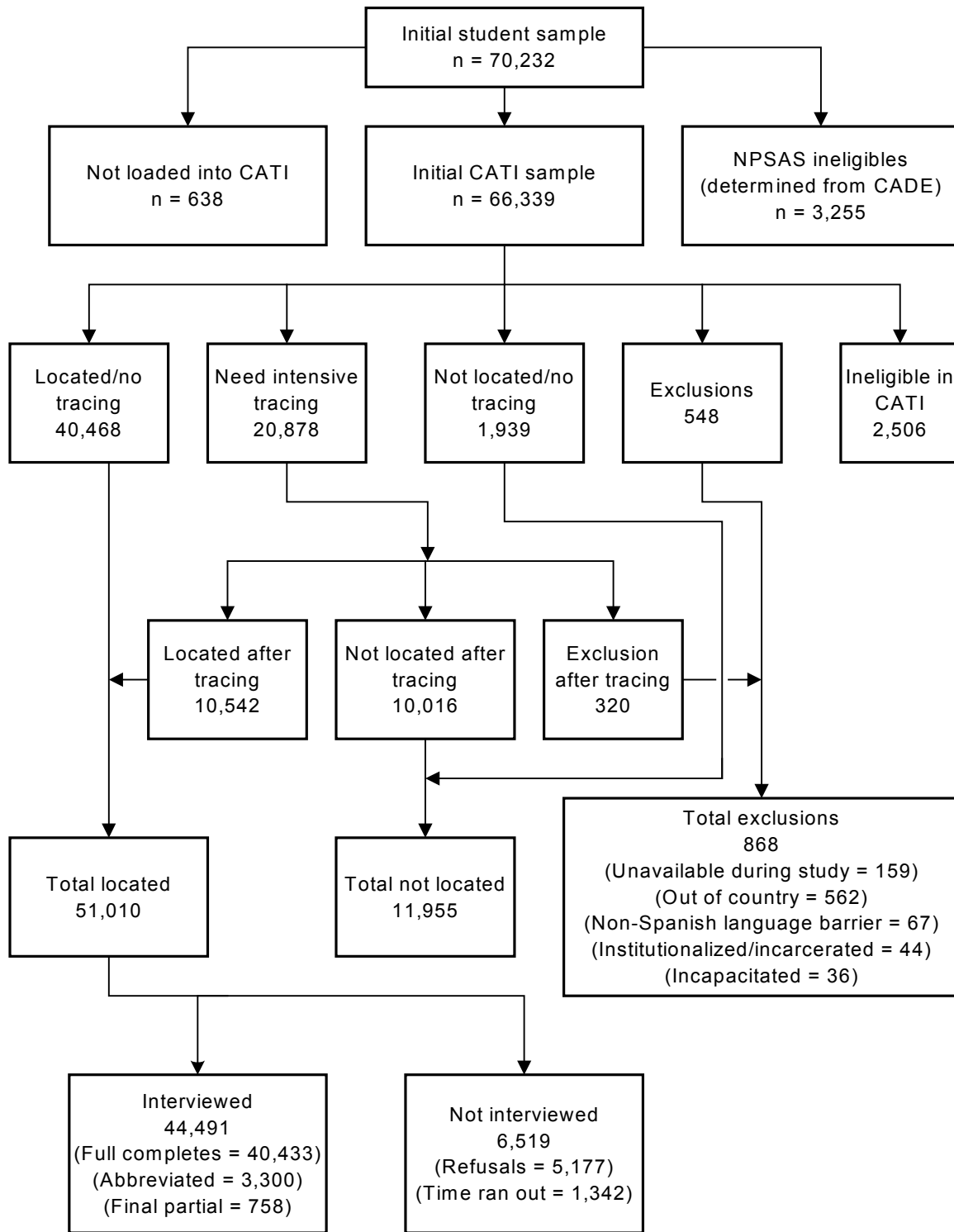
⁴Matches attempts included SAT's taken from 1995–1999

⁵Percentages are unweighted and based on the total number of study respondents within the row under consideration.

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Figure 3-2.—Student sample case flow through locating, CATI interviewing, and related case resolution



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

A total of 6,500 potentially eligible students who were located were not interviewed. Of these, about 5,200 were explicit final refusals. These cases represent situations in which subsequent attempts at interviewing were determined to be infeasible or unwise. Also not interviewed were 1,340 sample members for whom time ran out before they could complete the interview. These cases were loaded late in the data collection period (in January or February 2001), restricting the time to adequately work them.⁸

NPSAS:2000 student locating and interviewing (for those located) results by institution type and student type are provided in table 3-8, for eligible sample members for whom CATI locating was attempted. Students in private for-profit institutions proved to be more difficult to find (locate rates: 72 percent private for-profit; 82 percent private not-for-profit; 82 percent public) and slightly less willing to participate once the student was located (interviewed-when-located rates: 85 percent private for-profit; 88 percent private not-for-profit; 87 percent public). Similarly, the locate rates were lower for students in less-than-2-year schools (71 percent) and 2-year institutions (78 percent) than they were for either 4-year doctorate-granting (88 percent) or 4-year non-doctorate-granting (89 percent) institutions. In terms of student type, baccalaureate recipients (84 percent) and graduate and first-professional students (83 percent) were easier to locate than were non-baccalaureate-receiving undergraduates (79 percent). Once they were located, however, there were only slight differences among these groups in terms of the percentage interviewed.

Weighted overall CATI response rates are provided in table 3-9 and constitute the target population directly represented by the NPSAS:2000 study respondents. This rate was computed as the product of the weighted institution and student response rates. Coverage of entire clusters of students was lost when sample institutions did not participate. Additionally, coverage was lost when individual students in participating institutions failed to respond. The cumulative effect on coverage of the student population is reflected by the overall weighted student CATI response rate of 66 percent, ranging from 72 percent for students attending private, not-for-profit, doctorate-granting institutions to 57 percent for students attending public, less-than-2-year institutions.

3.7 Overall Study Participation

The students included in the final NPSAS:2000 analysis database were defined to be the overall “study respondents,” meeting the requirements specified above for being a CADE record respondent and/or CATI respondent. Using this definition of the overall study response status, table 3-10 shows that about 62,000 of the 64,500 eligible sample students were classified as “study respondents” for an unweighted study response rate of 96 percent. This table also presents the study response rates, weighted and unweighted, by various institutional and student classifications. The weighted rates are based on the student sampling weights with adjustments for institutional nonresponse and for student multiplicity (attendance at more than one NPSAS-eligible institution during the NPSAS year). The overall weighted study response rate in table 3-

⁸ This group likely contains, however, an unknown number of implicit refusal cases, individuals who after first contact used answering machines or friends/relatives as gatekeepers, as well as those who continued to make (and then break) appointments for an interview.

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10 was 89 percent. Both weighted and unweighted response rates shown in table 3-10 are quite consistent.

Table 3-8.—NPSAS:2000 student locating and interview results by institution and student type

Type of student ¹	Total ²	Located		Interviewed when located	
		Number located	Percent located	Number interviewed	Percent interviewed
All students	62,970	51,010	81	44,490	87
Institution level					
Less-than-2-year	5,560	3,940	71	3,360	85
2-year	11,350	8,890	78	7,490	84
4-year non-doctorate-granting	17,090	14,280	84	12,630	89
4-year doctorate-granting	28,960	23,900	83	21,020	88
Institutional control					
Public	39,330	32,250	82	28,060	87
Private not-for-profit	17,340	14,200	82	12,540	88
Private for-profit	6,300	4,560	72	3,890	85
Institutional sector					
Public less-than-2-year	1,150	870	76	740	86
Public 2-year	9,050	7,130	79	5,950	84
Public 4-year non-doctorate-granting	9,040	7,620	84	6,730	88
Public 4-year doctorate-granting	20,090	16,630	83	14,640	88
Private not-for-profit 2-year or less	1,530	1,110	73	980	88
Private not- 4-year non-doctorate-granting	7,290	6,090	84	5,410	89
Private not-for-profit 4-year doctorate-granting	8,520	7,000	82	6,150	88
Private for-profit less-than-2-year	3,940	2,760	70	2,350	85
Private for-profit 2-year or more	2,360	1,800	76	1,550	86
Student type					
Total undergraduate	50,840	40,890	80	35,540	87
B&B	14,030	11,780	84	10,400	88
Other undergraduates	36,810	29,110	79	25,130	86
Graduate	10,870	9,080	84	8,040	89
First-professional	1,250	1,040	83	920	88

¹Both institution and student classifications were verified to correct classification errors on the sampling frame.

²Statistics exclude 5,761 NPSAS-ineligible sample members (as determined during record extraction or in CATI); 868 sample members who were either unavailable for the duration of the survey, out of country, or institutionalized; and 638 cases that were sampled but never worked in CATI.

NOTE: To protect confidentiality, some numbers have been rounded. All percentages are unweighted and based on the eligible count within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 3-9.—Student interview (CATI) response rates, by selected institutional and student classifications

Type of student	Eligible students ²	Student interview completed			Weighted institutional response rate	Overall weighted response rate ³
		Number	Unweighted percent	Weighted percent		
All students	63,600	44,490	70	72	91	66
Institutional level						
Less-than-2-year	5,740	3,540	62	68	88	59
2-year	11,400	7,490	66	69	96	66
4-year non-doctorate-granting	17,210	12,630	73	75	86	65
4-year doctorate-granting	29,530	21,020	71	74	96	71
Institutional control						
Public	39,490	28,060	71	72	94	68
Private not-for-profit	17,700	12,540	71	74	89	66
Private for-profit	6,420	3,890	61	69	91	63
Institutional sector						
Public less-than-2-year	1,150	740	65	72	79	57
Public 2-year	9,050	5,950	66	69	96	66
Public 4-year non-doctorate-granting	9,050	6,730	74	76	94	71
Public 4-year doctorate-granting	20,240	14,640	72	74	95	70
Private not-for-profit 2-year or less	1,630	980	60	69	98	67
Private not-for-profit 4-year non-doctorate-granting	7,410	5,410	73	75	82	61
Private not-for-profit 4-year doctorate-granting	8,660	6,150	71	74	97	72
Private for-profit less-than-2-year	4,060	2,350	58	67	88	59
Private for-profit 2-year or more	2,360	1,550	66	70	95	66
Student level						
Undergraduate	51,340	35,540	69	71	93	66
Graduate	11,000	8,040	73	77	87	67
First-professional	1,270	920	73	78	96	75

¹Both institutional and student classifications were verified to correct classification errors on the sampling frame.

²The eligible group comprised all 70,200 sampled students minus the 5,800 found to be NPSAS-eligible at any stage of data collection and 900 CATI exclusions. However, in order to estimate student interview response rates most accurately, the 638 sample members who were never loaded into CATI were included in the eligible totals in this table.

³The overall CATI weighted response rate was computed as the product of the weighted student CATI yield and the weighted institutional yield.

⁴The weighted institutional response rate for a given student level was calculated as the response rate of all institutions with that level of offering.

NOTE: To protect confidentiality, some numbers have been rounded. Percentages are based on the eligible students within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 3-10.—Study respondents, by selected institutional and student classifications

Type of student ¹	Eligible students ²	Study respondents			Overall weighted response ³
		Number	Unweighted percent	Weighted percent ³	
All students	64,470	61,770	96	97	91
Institution level					
Less-than-2-year	5,810	5,140	89	94	88
2-year	11,550	11,220	97	97	96
4-year non-doctorate-granting	17,380	16,910	97	97	86
4-year doctorate-granting	29,730	28,490	96	97	96
Institutional control					
Public	39,980	38,680	97	97	94
Private not-for-profit	18,000	17,110	95	97	89
Private for-profit	6,490	5,980	92	97	91
Institutional sector					
Public less-than-2-year	1,170	1,060	91	95	79
Public 2-year	9,170	8,930	97	97	96
Public 4-year non-doctorate-granting	9,130	8,950	98	97	94
Public 4-year doctorate-granting	20,520	19,730	96	97	95
Private not-for-profit 2-year or less	1,660	1,510	91	98	98
Private not-for-profit 4-year non-doctorate-granting	7,480	7,190	96	97	82
Private not-for-profit 4-year doctorate-granting	8,860	8,410	95	97	97
Private for-profit less-than-2-year	4,100	3,630	89	93	88
Private for profit 2-year or more	2,400	2,350	98	99	95
Student level					
Undergraduate	52,030	49,930	96	97	93 ⁴
Graduate	11,160	10,640	95	97	87 ⁴
First-professional	1,280	1,200	93	95	96 ⁴

¹Both institutional and student classifications were verified to correct classification errors on the sampling frame.

²The eligible group comprised all 70,200 sampled students minus the 5,800 found to be NPSAS-ineligible at any stage of data collection. However, in order to estimate “study” response most accurately, CATI exclusions as well as sample members never loaded into CATI were included in the eligible totals in this table.

³The overall study weighted response rate was computed as the product of the weighted student yield and the weighted institutional yield and, thus, accounts for nonresponse at each stage of data collection.

⁴The weighted institution response rate for a given student level was calculated as the response rate of all institutions with that level of offering.

NOTE: To protect confidentiality, some numbers have been rounded. Percentages are based on the eligible students within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

3.8 Reinterviews

Among eligible sample members who completed the NPSAS:2000 interview, a random sample was selected to participate in a reliability reinterview that contained a small subset of the interview items. The reinterviews began approximately 1 month after the initial interview.⁹ A total of 275 respondents were selected for the reliability reinterview. The reinterview sample, together with rates of participation, are shown in table 3-11.¹⁰

Table 3-11.—Reliability reinterview results, by student and institution classifiers

Type of student ¹	Selected for reinterview		Participated in reinterview	
	Number	Percent ²	Number	Percent ³
All students	275	100.0	235	85.5
Institutional control				
Public	178	64.7	153	86.0
Private not-for-profit	75	27.3	66	88.0
Private for-profit	22	8.0	16	72.7
Student level				
Undergraduate	231	84.0	195	84.4
Graduate	39	14.2	35	89.7
First-professional	5	1.8	5	100.0

¹ Institutional classifications were verified by participating institutions to correct classification errors on the sampling frame.

² Percentage of total cases selected for reinterview.

³ Percentages are based on the number of students in the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

⁹ Unfortunately, because of delays in relocating and recontacting some individuals selected for this substudy, the actual time interval between initial interview and reinterview was as long as 6 months.

¹⁰ Due to the built-in delay in administering the reinterviews and the plan to complete the reinterviews during the same time frame as other interviews, the reinterview population was more heavily weighted with those who responded relatively early to the initial interview; consequently, reported response rates are probably biased upwards. Reinterview respondents were also disproportionately represented by those most easily located and most easily convinced to participate in the initial interview.

