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#### ABSTRACT

This report describes the methods and procedures used for the 1996 National Postsecondary Student Aid Study (NPSAS:96). NPSAS:96, which surveyed over 830 postsecondary education institutions and over 34,000 students and parents, included important changes from previous NPSAS studies conducted in 1987, 1990, and 1993 in its sample design and data collection. For example, this current study is the first to use a single-stage institutional sampling design and to select a subsample of students for telephone interviews. It is also the first of the NPSAS studies to take full advantage of extant data maintained in government data files. The introductory chapter describes the background, objectives, methodological issues, and products of the NPSAS:96. In chapter 2, study design and method are summarized. Descriptions and overall outcomes of the stages of data collection are presented in chapter 3. Chapter 4 presents evaluations of procedures used to collect information from institutions, students, and parents, and examines issues related to the quality of data collected. Chapter 5 provides descriptions of data editing, coding, variable construction, and other activities associated with producing data files. The final chapter describes the analysis weight construction and identifies the precision of study estimates. Materials used during the NPSAS:96 survey and related supporting material are provided as 10 appendixes. (Contains 57 tables and 12 figures.) (SLD)

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# NATIONAL CENTER FOR EDUCATION STATISTICS

Technical Report

November 1997

# National Postsecondary Student Aid Study 1995–96 (NPSAS:96), Methodology Report

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#### NATIONAL CENTER FOR EDUCATION STATISTICS

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# National Postsecondary Student Aid Study 1995–96 (NPSAS:96), Methodology Report

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#### **Foreword**

This report describes the methods and procedures used for the 1996 National Postsecondary Student Aid Study (NPSAS:96). NPSAS:96 included important changes from previous NPSAS surveys (conducted in 1987, 1990, and 1993) in its sample design and collection of data. For example, the current study is the first to employ a single-stage institutional sampling design and to select a subsample of students for telephone interviews. It is also the first in the NPSAS series to take full advantage of extant data maintained in government data files. Even so, sufficient comparability in survey design and instrumentation was maintained to ensure that important comparisons with past NPSAS studies could be made.

We hope that the information provided in this report will be useful to a wide range of interested readers. We also hope that the results reported in the forthcoming descriptive summary reports will encourage use of the NPSAS:96 data. We welcome recommendations for improving the format, content, and approach, so that future methodology reports will be more informative and useful.

Mary Frase
Acting Associate Commissioner
Data Development and Longitudinal Studies Group



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Particular thanks are also extended to the study technical review panel members, who provided considerable insight and guidance in development of the design and instrumentation of this study and an earlier major field test. Thanks are also extended to the project staff members of the three involved contractors--Research Triangle Institute (RTI), MPR Associates, and the National Association of Student Financial Aid Administrators (NASFAA). A cadre of staff from each of these organizations, including statisticians, analysts, survey managers, programmers, data collectors and interviewers--too numerous to list here worked long hours to produce the data files and reports of the 1996 NPSAS. At RTI, we are especially indebted to Ms. Lil Clark, who prepared the graphics, integrated the text, and produced the drafts and final version of this report.

We also wish to thank all of those from OERI/NCES, who reviewed earlier drafts of this report and offered many helpful suggestions, including: Robert Burton, Kathryn Chandler, Mary Frase, and Laurence Ogle. Julie Anne Cronin and Ann Parcell from the Office of Tax Analysis, U.S. Treasury Department also reviewed the report and provided helpful suggestions.

Most of all, we are greatly indebted to the staff of over 830 postsecondary education institutions who assisted in the institution records collection and to the over 34,000 students and parents who generously participated in the telephone survey. Their willingness to take the time to share information has made this study a success.



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# Chapter 1 Introduction, Background, and Objectives

This report describes methodological procedures and results for the 1995-96 National Postsecondary Student Aid Study (NPSAS:96). This study, which was preceded by a substantial field test, was conducted for the National Center for Education Statistics (NCES) of the U.S. Department of Education, by Research Triangle Institute (RTI), assisted by MPR Associates, Inc. and the National Association of Student Financial Aid Administrators (NASFAA), as principal subcontractors.

This introductory chapter describes briefly the background, objectives, methodological issues, and products of NPSAS:96. In Chapter 2, study design and method are summarized. Descriptions and overall outcomes of the several stages of data collection are presented in Chapter 3. Chapter 4 presents evaluations of procedures used to collect information from institutions, students, and parents, and examines issues related to the quality of the data collected. Chapter 5 provides descriptions of data editing, coding, variable construction and other activities associated with producing study data files. The final chapter describes the analysis weight construction and identifies precision of study estimates. Materials used during the NPSAS:96 survey, as well as other related supporting material, are provided as appendixes to the report and cited, where appropriate, in the text.

#### 1.1 BACKGROUND AND OBJECTIVES OF NPSAS

NPSAS is a comprehensive nationwide study to determine how students and their families pay for postsecondary education, and to describe some demographic and other characteristics of those enrolled. The study is based on a nationally representative sample of all students enrolled in postsecondary education institutions, including undergraduate, graduate, and first-professional students. Students attending all types and levels of institutions are represented in the samples, including public and private for-profit and not-for-profit institutions, and from less-than-2-year institutions to 4-year colleges and universities. The study is designed to address the policy questions resulting from the rapid growth of financial aid programs and the succession of changes in financial aid program policies since 1986. The first study (NPSAS:87) was conducted during the 1986-87 school year; subsequently, NPSAS has been conducted triennially as NPSAS:90, NPSAS:93, and the current NPSAS:96. Each study is designed to cover the July 1 through June 30 financial aid award year.

<sup>&</sup>lt;sup>1</sup>Research Triangle Institute, National Postsecondary Student Aid Study: 1996--Field Test Methodology Report, (Working Paper No. 96-17). National Center for Education Statistics: Washington, DC; Author; July 1996.



A main objective of the study is to produce reliable national estimates of characteristics related to financial aid for postsecondary students. The data are part of the NCES comprehensive information on student financial aid and other characteristics of those enrolled in postsecondary education. The data focus on three general questions with important policy implications for financial aid programs:

- How do students and their families finance postsecondary education?
- How does the process of financial aid work, in terms of both who applies and who receives aid?
- What are the effects of financial aid on students and their families?

The first and third questions address the basic purpose of financial aid and provide one measure of the success of financial aid programs, including the underlying strategies of students and families in financing postsecondary education (e.g., Do students avoid socially desirable career paths because of the need to repay higher levels of debt?) The Beginning Postsecondary Students and Baccalaureate and Beyond longitudinal studies, for which NPSAS provides base year information, also address the third question. The second question addresses the actual implementation of student aid programs. The implementation of Federal financial aid programs is greatly influenced by decisions and practices of school financial aid offices and banks which have the primary responsibility for providing information to students and awarding the various types of aid; consequently, information is needed regarding the types and amounts of aid awards being made by institutions.

#### 1.2 METHODOLOGICAL ISSUES

As described subsequently in Chapter 2, the NPSAS survey design is both large and complex. Data are collected from a very large and diverse set of respondents; over 950 postsecondary institutions, 50,000 students, and 8,800 parents were selected for participation in NPSAS:96. A major methodological concern underlying NPSAS is designing a data collection system that has the flexibility to gather comprehensive financial data from the most appropriate source and concurrently provide some assurance of comparability in data collection for each element. Of the potential sources for NPSAS data-government data files, institutions, students, or parents--none alone can provide a complete and accurate summary of postsecondary education financing.

Financial aid offices maintain accurate records of certain types of financial aid at that institution, but these records are not necessarily inclusive of all support and assistance. Such records may not contain financial aid provided at other institutions attended by the student and they cannot provide detailed information on sources of aid and educational financing other than those recorded by that financial aid office. (Two notable exceptions that are not maintained in many financial aid offices are employee benefits and graduate teaching or research assistantships.) Students and their parents are more likely than institutions to have a comprehensive picture of education financing, but may not have accurate memory or records of exact amounts and sources, which they may have earlier provided accurately to lending agencies



or aid providers (or clearinghouses), and which may exist in student financial aid records. Consequently, the NPSAS data requirements call for a survey design that builds a comprehensive and accurate understanding of postsecondary education financing from a number of different sources. To meet this challenge, NPSAS:96 relied on an integrated system of computer-assisted data capture instruments.

Innovative methodological solutions that were applied to NPSAS:96 challenges were tested and refined during a substantial field test conducted during the 1994-95 school year on a separate independent sample of students and institutions. Results of the field test have been reported separately.<sup>2</sup>

#### 1.3 SPECIAL FEATURES OF NPSAS:96

Although the general purposes of the NPSAS studies have remained quite consistent, all NPSAS implementations except the first also have served as the base year for a longitudinal study. For NPSAS:96 and NPSAS:90, the longitudinal cohort was comprised of students who began their postsecondary education during the NPSAS year. As in the past, the NPSAS:96 longitudinal cohort was over-sampled to support the subsequent longitudinal follow-up studies, the 1996 Beginning Postsecondary Students (BPS:96) survey series.

In implementing three prior rounds of NPSAS and their associated field tests, NCES and its contractors have developed and refined a number of systems and methods to facilitate subsequent rounds. Consequently, in NPSAS:96, methods that had both proved successful and remained applicable to current study needs were generally maintained or refined. Like prior NPSAS implementations, however, the current study also attempted to take advantage of new technologies and to access newly available data sources toward improving study efficiency and/or the quality of data collected. The major new features of the NPSAS:96 study were:

- enriching study data by obtaining, through electronic data interchange (EDI) with a Department of Education (ED) data system, financial data provided by federal aid applicants on the Free Application for Federal Student Aid (FAFSA) and resulting Student Aid Report (SAR) -- obtained for school years 1995-96 and 1996-97;
- enriching study data by obtaining, through EDI with the ED National Student Loan Data System (NSLDS) files, information available for loan recipients during the 1995-96 school year<sup>3</sup>;
- increasing precision of study estimates (at negligible cost) by eliminating the previously used first stage of student sampling (i.e., geographic area);

<sup>&</sup>lt;sup>3</sup>As in prior NPSAS studies, financial data were also obtained for aid recipients through EDI with the ED Pell Grant Files.



<sup>&</sup>lt;sup>2</sup>Research Triangle Institute, July 1996, Op. Cit.

- introducing cost efficiencies through a dynamic two phase sampling of students for telephone interview; and
- improving the quality of collected institutional data of record through an enhanced Computer Assisted Data Entry (CADE) procedure.

NPSAS:96 also introduced procedures to broaden the base of postsecondary student types for whom telephone interview data could be collected. In past NPSAS implementations, no mechanism existed for contacting and collecting information by telephone from students with severe hearing impairments; however, NPSAS:96 included the use of Telephone Display for the Deaf (TDD) technology to facilitate telephone communications with such students. Also, in NPSAS:96, a separate Spanish translation interview was prepared for administration to students with insufficient English language proficiency to complete the interview in English or with only moderate translation of terms by a bilingual interviewer<sup>4</sup>. This was particularly useful with the students from sampled postsecondary institutions in Puerto Rico.

#### 1.4 Major NPSAS:96 Products

By Spring 1998 the following products/reports will be available:

• Profile of Undergraduates in the U.S. Postsecondary Education Institutions: 1995-96

Report describing the characteristics of undergraduates enrolled during 1995-96, including age, race, gender, income, financial aid receipt, community service, veteran status, and more, based on the 1996 National Postsecondary Student Aid Study. The report will include a special section on student employment.

• Student Financing of Graduate and First-professional Education 1995-96

Based on data from the 1996 NPSAS, this report will describe the characteristics of graduate and first-professional students enrolled during 1995-96, including age, race, gender, income, financial aid receipt, community service, veteran status, and more. Also, the report will describe those graduate and first-professional students who received financial aid, including grants, loans, and work-study from federal, state, institution, or other sources, by selected student characteristics. The report will include a section on the timing of graduate education - the number of years between finishing undergraduate work and beginning graduate study.

<sup>&</sup>lt;sup>4</sup>English/Spanish bilingual interviewers were used in NPSAS:96 as in previous NPSAS studies to interview Spanish speaking sample members with limited English proficiency.



NPSAS:96 Methodology Report

## Student Financing of Undergraduate Education, 1995-96

This report will focus on undergraduate students, and examines how undergraduate students enrolled during 1995-96 financed their education. The report includes a section that explores undergraduate borrowing, including information from the National Student Loan Data System on cumulative borrowing. Other tables in the report will include information on total costs of attendance, the distribution of financial aid among students by type of institution, and the net cost of attendance.

 NPSAS:96 Undergraduate and Graduate/First-professional Data Analysis Systems

The Data Analysis System (DAS) is a Windows software application that provides public access to NCES survey data. Two DAS's have been created from the NPSAS:96 data -- an undergraduate DAS and a graduate/first-professional DAS. With the DAS, users can generate tables of percentages, means, or correlation coefficients simply by choosing the DAS variables (based on survey questionnaire items) that they would like to appear in a table and indicating what function should be used. Contact Aurora D'Amico at 202-219-1365 to obtain a NPSAS:96 DAS or one of the NPSAS:96 reports.

#### • NPSAS:96 Restricted Use Data Files

The survey data files used in to create variables in the Data Analysis Systems, and the associated electronic codebooks and file documentation, are available to researchers who have obtained a restricted data license from NCES. Information on obtaining a restricted data license may be found in the NCES Field Restricted Use Data Procedures Manual, available from Cynthia Barton at 202-219-2199. Her e-mail address is Cynthia\_Barton@ed.gov.

Information on NPSAS:96 products is available from the NCES Website http://www.ed.gov/NCES/.



# Chapter 2

# Design and Method of NPSAS:96

The implementation of NPSAS:96 posed a number of operational challenges in both selecting samples and in subsequent phases of data collection. Perhaps the largest challenge was the need to complete complex, sequentially dependent operations in an overlapping manner, due to the time differential of when student sampling lists were made available from institutions.<sup>1</sup>

Considerable planning and development of operational controls were required. To meet the challenge, NPSAS:96 relied on an integrated system of computer assisted data capture approaches, including: (a) Electronic Data Interchange (EDI) with extant data bases, (b) Computer Assisted Data Entry (CADE), and (c) Computer Assisted Telephone Interviewing (CATI). The NPSAS Integrated Management System (IMS) provided the framework for articulating modules developed to record, abstract, or transfer data. Additional modules of the IMS facilitated editing of these data, loading data from one module to another (e.g., from the CADE record to the student CATI record), and preparing, daily reports of production and case management. Communication modules of the IMS provided the capability for transfer of data from the field to a central office and also for routine communication via electronic mail between all members of the project team.

The several innovative methodological solutions that were applied to NPSAS:96 challenges were refined during a substantial field test conducted during the 1994-95 school year on a separate independent sample of students and institutions.<sup>2</sup>

#### 2.1 NPSAS:96 Target Population and Sampling Overview

The basic features of the NPSAS:96 Sampling Plan and the samples realized therefrom are summarized in the following two sections. Greater detail is provided in Appendix A for the interested reader.



<sup>&</sup>lt;sup>1</sup>Final 1995-96 enrollment lists were available from some institutions as early as February, 1996; however, other institutions did not provide final lists until August, 1996.

<sup>&</sup>lt;sup>2</sup>Research Triangle Institute, July 1996, op. cit.

#### 2.1.1 Target Population

The ideal target population for NPSAS:96 consists of all students who were enrolled in postsecondary institutions in the United States or Puerto Rico between July 1, 1995 and June 30, 1996.<sup>3</sup> Using this time period to define the survey population, however, would delay final sampling for many institutions until after the first 1996 summer session began. Consequently, the survey population was defined as those students who were enrolled in any term *beginning* between May 1, 1995 and April 30, 1996.<sup>4</sup> This definition of the survey population is completely consistent with that used for NPSAS:93. It also provides substantial comparability with the survey populations for NPSAS:90 and NPSAS:87.<sup>5</sup> Further constraints on this general population are provided subsequently.

#### 2.1.2 Sample Design Overview

Geographic-area-clustered, three-stage sampling designs were used for all previous NPSAS studies.<sup>6</sup> However, as part of the NPSAS:96 field test activities, the feasibility of increasing precision of study estimates by eliminating the geographic area stage of sampling was examined. Both a clustered sample of institutions and an unclustered sample of institutions were selected for NPSAS:96.<sup>7</sup> A comparison of expected costs and precision for these two sampling designs (i.e., three-stage vs. two-stage) indicated that: (1) the expected difference in cost between the two designs was not substantial<sup>8</sup> and (2) standard errors for important estimates were expected to be 10 to 25 percent smaller with the two-stage design than those

<sup>&</sup>lt;sup>8</sup>The relatively small cost differential between the two approaches results from greater use of two new procedures for collecting student financial aid information and other information from institutional records. The first of these procedures, introduced in the NPSAS:96 Field Test involved collecting, through EDI, SAR data from the ED central processing system (CPS) prior to any data collection at the involved institution. The second procedure, which was introduced in NPSAS:93, was the use of remote CADE, by institutional staff at most schools and by field staff only at the remainder, to obtain information from school records.



<sup>&</sup>lt;sup>3</sup>Excluding students who were enrolled solely in a GED program or who were concurrently enrolled in high school.

<sup>&</sup>lt;sup>4</sup>Nearly all members of the target population are also members of the survey population; however, the adopted definition of the survey population allowed the student lists needed for sample selection to be obtained in January or February for most institutions (e.g., those on a semester calendar system).

<sup>&</sup>lt;sup>5</sup>For NPSAS:90, the students sampled were those enrolled on August 1, 1989, October 15, 1989, February 15, 1990, or June 15, 1990 (however, the June 15 enrollees were not sampled for 4-year institutions because of budgetary limitations); for NPSAS:87, only Fall 1986 enrollees were sampled.

<sup>&</sup>lt;sup>6</sup>Stages were: (1) geographic areas constructed from 3-digit postal Zip code areas; (2) institutions within sample areas; and (3) students within sample institutions. An area clustered design was necessary for NPSAS:87 because a complete institution frame was not available at that time, and the frame was supplemented with local sources. An area clustered design was used for the 1990 and 1993 studies to reduce the costs associated with sending field staff to sample institutions to abstract registration and financial aid data for sample students.

<sup>&</sup>lt;sup>7</sup>The field test sample of institutions was selected from those that were in neither of the institutional samples selected for the full-scale study, to insure that no institution would be burdened by participation in both surveys.

with the three-stage design. Since a two-stage design can only improve precision and the cost penalty did not appear to be substantial, the two-stage design was fielded for the full-scale NPSAS:96. Comparisons of cost and precision estimates under the two sampling approaches are provided in Appendix A (Tables A.1 and A.2); greater detail on procedures and conclusions is provided in the NPSAS:96 field test report.<sup>9</sup>

An overview of the sequential statistical sampling process for NPSAS:96 is provided in Figure 2.1. The institutional sampling frame for NPSAS:96 was constructed from the 1993-94 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics (IC) file. This data base is considered to provide nearly complete coverage of the institutions in the target population. Listings in the file that were not eligible institutions (e.g., institutions located outside the U.S. and Puerto Rico; central offices) were not considered. The remaining institutions were then partitioned into nine institutional strata based on institutional control and highest level of offering:

- (1) Public, less-than-2-year;
- (2) Public, 2-year;
- (3) Public, 4-year, non-doctorate-granting;
- (4) Public, 4-year, doctorate-granting;<sup>10</sup>
- (5) Private, not-for-profit, less-than-4-year;
- Private, not-for-profit, 4-year, non-doctorate-granting;
- (7) Private, not-for-profit, 4-year, doctorate-granting; 10
- (8) Private, for-profit, less-than-2-year; and
- (9) Private, for-profit, 2-year or more.

A stratified sample of 973 institutions was then selected with probabilities proportional to size (pps); some of these institutions subsequently proved to be ineligible and others failed to participate.

The sampling frames for selecting sample students were hard-copy and machine-readable lists of students provided by the sample institutions for those students enrolled in terms or courses of instruction beginning during the previously defined NPSAS year. Student listings were sampled on a flow basis as received, using stratified systematic sampling; student sampling strata were:

- (1) potential first-time, beginning students (FTBs).
- (2) other undergraduate students.
- (3) graduate students; and
- (4) first-professional students.

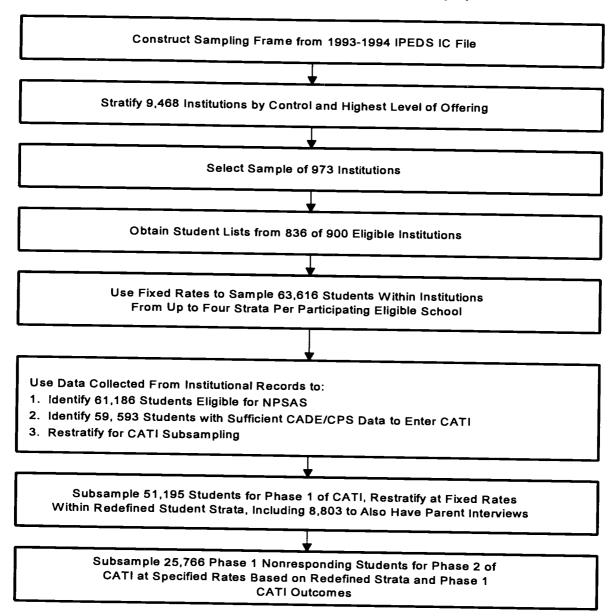
<sup>&</sup>lt;sup>11</sup>Quality control checks were performed on each listing received from a sample institution, by comparing the numbers of undergraduate, graduate, and first-professional students listed to the unduplicated head counts reported for the 1993-94 academic year in the 1994-95 IPEDS IC file.



<sup>&</sup>lt;sup>9</sup>Research Triangle Institute, July 1996, Op. Cit.

<sup>&</sup>lt;sup>10</sup>Institutions that award first-professional degrees are included in doctorate-granting institutions.

Figure 2.1—Schematic of sequential NPSAS:96 sampling operations





The list for each student stratum was sampled at a rate designed to provide approximately equal student-level probabilities under certain constraints (see below). Student sampling rates were revised after enough lists had been received to more accurately estimate the overall sample yield.

Due to budget limitations, CATI was attempted for only a subsample of the basic student sample. A two-phase, nonrespondent follow-up subsampling design was used to maximize the yield of completed student interviews obtained from the CATI subsample while achieving acceptable response rates. Previously collected student record data were used to partition the basic student sample into nine strata for the Phase 1 CATI subsampling:

- (1) potential first-time, beginning students (FTBs).
- (2) other undergraduate students who were financial aid applicants;
- (3) other undergraduate students who were not financial aid applicants;
- (4) graduate students who were financial aid applicants;
- (5) graduate students who were not financial aid applicants;
- (6) first-professional students who were financial aid applicants;
- (7) first-professional students who were not financial aid applicants;
- (8) students for whom no "records" data had been collected from any source; and
- (9) students identified as ineligible based on the CADE data.

Students were subsampled for CATI at fixed positive rates within each of the first seven strata (potential FTBs and federal aid applicants were selected with certainty, see Table 2.5); no students were selected from the last two listed strata.

Within the Phase 1 CATI subsample, *all* students in the below-listed categories (based on previously collected "records" data) were designated for parent interviewing. 12

- (1) Dependent undergraduate students not receiving federal aid.
- (2) Dependent undergraduate students receiving federal aid, whose parents' adjusted gross income was not available.
- (3) Independent undergraduate students who were 24- or 25- years old on December 31, 1995.

These sampling procedures resulted in selection of 51,195 students for Phase 1 of the student CATI. Among these students, 8,803 were also selected for parent interviewing. A sample of nonrespondents to Phase 1 of CATI were selected for Phase 2 of CATI with specified rates based on the outcome of the Phase 1 CATI efforts and the seven CATI sampling strata. If the student did not respond in Phase 1 of CATI and was not selected for Phase 2, the parent interview was not attempted; 25,766 students were selected for Phase 2 of CATI.

<sup>&</sup>lt;sup>12</sup>As suggested by the selection rules, the purpose of the parent data collection was primarily to complete data gaps regarding the parents' financial resources.



#### 2.2 **NPSAS:96 Sample Implementation**

The goal of all sampling activities was to attain sufficient numbers of eligible sample postsecondary students (within specified student and institution types). An important domain of the student sample was the set of students identified as FTBs, 13 who would comprise the baseline cohort for the BPS longitudinal study. The desired number of sample students was determined by accounting for expected (from prior NPSAS studies) rates of ineligibility among sample students and rates of FTB misclassification, (as determined from NPSAS:90 and the NPSAS:96 field test). Since the student samples were selected on a flow basis as sample institutions provided their enrollment lists (in order to meet the data collection schedule), the students were sampled at fixed rates. Under this approach, the actual numbers of students sampled are random variables; however, the sampling rates were set to meet or exceed the sample sizes shown in Table 2.1.

Table 2.1—Target numbers of sample students by institutional stratum and type of student

Institutional stratum	Total	Potential FTBs	Other undergraduates	Graduate students	First- professional students <sup>8</sup>
Total	59,509	22,677	23,908	9,924	3,000
Public, less-than-2-year	1,674	1,575	99	†	†
Public, 2-year	7,761	4,345	3,416	†	†
Public, 4-year, non-doctorate-granting	9,656	2,896	4,860	1,900	†
Public, 4-year, doctorate-granting	13,043	2,471	5,685	3,803	1,084
Private, not-for-profit, less-than-4-year	2,301	1,485	816	†	†
Private, not-for-profit, non-doctorate-granting	7,918	2,528	3,490	1,900	†
Private, not for profit, 4-year, doctorate- granting	10,691	2,588	4,031	2,198 i	1,874
Private, for-profit, less-than-2-year	3,455	3,318	137	_a	_a a
Private, for-profit, 2-year or more	3,010	1,471	1,374	_a	_a

<sup>&</sup>lt;sup>a</sup>Entries do not sum to total because a small sample of graduate and first-professional students was expected from private, for-profit institutions.

<sup>&</sup>lt;sup>13</sup>Students who began their postsecondary education during the NPSAS year.



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<sup>†</sup>Not applicable.

The NPSAS:96 sample was also designed to achieve at least 30 student CATI respondents from each sample institution that had at least that many eligible students enrolled during the NPSAS year. Consequently, institution sample sizes were determined to achieve an average of approximately 50 or more sample students per institution within each institutional stratum. Given these student sample size goals, it was determined that the survey should be based on approximately 850 participating institutions. Based on institutional eligibility and participation rates obtained in prior NPSAS implementations and the NPSAS:96 field test, an initial sample of 973 institutions was selected to yield at least the targeted 850 eligible and participating schools.

#### 2.2.1 Institutional Sample

The target population for NPSAS:96 includes nearly all postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Specifically, to be eligible for NPSAS:96 an institution is required, during the 1995-96 academic year, to:15

- offer an educational program designed for persons who have completed secondary education; and
- offer more than just correspondence courses; and
- offer at least one academic, occupational, or vocational program off study lasting at least 3 months or 300 clock hours; and
- offer courses that are open to more than the employees or members of the company or group (e.g., union) that administers the institution; and
- be located in the 50 states, the District of Columbia, or Puerto Rico; and
- be other than a U.S. Service Academy.<sup>16</sup>

Institutions providing only avocational, recreational, or remedial courses or only in-house courses for their own employees are excluded.

The student sample was allocated to the separate applicable institutional and student sampling strata, defined above. Student sampling rates (used to define institution measures of size) were defined based on 1993-94 IPEDS IC file counts, a modeling procedure to partition FTBs and other undergraduates, and the required sample sizes (see Appendix A for details).

<sup>&</sup>lt;sup>16</sup>These academies are not eligible for this financial aid study because of their unique funding/tuition base.



<sup>&</sup>lt;sup>14</sup>This was to allow NCES to send each participating institution a report using the results of the interviews with their students without violating confidentiality requirements.

<sup>&</sup>lt;sup>15</sup>The listed eligibility requirements are consistent with those used in previous NPSAS implementations.

An independent sample of institutions was selected for each institutional stratum using Chromy's<sup>17</sup> sequential, probability minimum replacement (pmr) sampling algorithm to select institutions with probabilities proportional to their computed measures of size. However, rather than allow multiple selections of sample institutions,<sup>18</sup> those with expected frequencies of selection greater than unity (1.00) were selected with certainty. The remainder of the institutional sample was selected from the remaining institutions within each stratum. The sampling algorithm was implemented with a random start for each institutional stratum to ensure the positive pairwise probabilities of selection that are needed for proper variance estimation.<sup>19</sup>

The numbers of certainty and noncertainty schools selected, within each of the nine institutional strata, are shown in **Table 2.2.** Within each institutional stratum, additional implicit stratification was accomplished by sorting the stratum sampling frame in a serpentine manner<sup>20</sup> by: (a) institutional level of offering (where strata had been collapsed one level); (b) the IPEDS IC-listed Bureau of Economic Analysis of the U.S. Department of Commerce Region (OBE Region); and (c) the institution measure of size. The objectives of this additional, implicit stratification were to approximate proportional representation of institutions on these measures. **Table 2.3**, shows that the geographic distribution of the sample is consistent with that of the subset of institutions from which the sample was selected.

#### 2.2.2 The Student Samples

In addition to the initial (basic) student sampling, additional student subsampling was implemented in NPSAS:96. Because of budgetary constraints, only a subsample of students were selected for interviewing; moreover, interviewing was conducted in two phases, and only a subsample of first phase nonrespondents were selected for the second interviewing phase. Additionally, certain students were selected for whom an interview with their parents would be required to obtain certain data elements. Finally, a small subsample of students was selected for reliability interviews.

<sup>&</sup>lt;sup>20</sup>c.f., Chromy, J.R. (1981). "Variance Estimators for a Sequential Sample Selection Procedure." In: D. Krewski, R. Platek, and J.N.K. Rao (Eds.), Current Top IMS in Survey Sampling. New York: Academic Press, 329-347.



<sup>&</sup>lt;sup>17</sup>Chromy, J.R. (1979). "Sequential Sample Selection Methods." Proceedings of the American Statistical Association Section on Survey Research Methods, 401-406.

<sup>&</sup>lt;sup>18</sup>By precluding institutions with multiple selections at the first stage of sampling, it was unnecessary to select multiple second-stage samples of students.

<sup>&</sup>lt;sup>19</sup>c.f., Williams, R.L. and Chromy, J.R. (1980). "SAS Sample Selection MACROs." Proceedings of the Fifth Annual SAS Users Group International Conference, 392-396.

Table 2.2—Institutional sampling rates and number of certainty and non-certainty institutions sampled, by institutional stratum

	- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-			Number of sample institutions			
	Institutional stratum	Size of Universe <sup>b</sup>	Sampling Rate	Total	Certainty	Non- certainty	
Total		9,468	0.10	973	131	842	
1.	Public, less-than-2-year	273	0.14	39	10	29	
2.	Públic, 2-year	1,265	0.13	165	7	158	
3.	Public, 4-year, non-doctorate-granting	376	0.33	125	14	111	
4.	Public, 4-year, doctorate-granting	243	0.51	124	29	95	
5.	Private, not-for-profit, less-than-4-year	902	0.06	56	6	50	
6.	Private, not-for-profit, 4-year, non-doctorate-						
	granting	1,306	0.09	120	2	118	
7.	Private, not-for-profit, 4-year, doctorate-granting	681	0.21	143	54	89	
8.	Private, for-profit, less-than-2-year	3,516	0.03	120	2	118	
9.	Private, for-profit, 2-year or more	906	0.09	81	7	74	

<sup>&</sup>lt;sup>a</sup>Stratum reflects institutional categorization as determined from the 1993-94 IPEDS IC file; some errors in this classification were uncovered when institutions were contacted.

Table 2.3— Distribution of NPSAS:96 institutional sample by OBE region

			Sample in	Sample institutions		stitutions <sup>b</sup>	
OB	E region <sup>a</sup>			Number	Percent	Number	Percent
1.	New England			62	6.4	542	5.7
2,	Mid-East			181	18.6	1,557	16.4
3.	Great Lakes			150	15.4	1,486	15.7
4.	Plains			70	7.2	801	8.5
5.	Southeast	٠		194	19.9	2,105	22.2
6.	Southwest			89	9.1	878	9.3
7.	Rocky Mountains		-	34	3.5	322	3.4
8.	Far West			170	17.5	1,622	17.1
9.	Outlying Areas		7.00	23	2.4	155	1.6

<sup>&</sup>lt;sup>a</sup> 1 includes CT, ME, MA, NH, RI, VT; 2 includes DE, DC, MD, NJ, NY, PA; 3 includes IL, IN, MI, OH, WI; 4 includes IA, KS, MN, MO, NE, AND, SD; 5 includes AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV; 6 includes AZ, NM, OK, TX; 7 includes CO, ID; 7 includes MT, UT, WY; 8 includes AK, CA, HI, NV, OR, WA; and 9 includes PR.



<sup>&</sup>lt;sup>B</sup>Based on the 1993-94 IPEDS IC file.

b Counts obtained from the 1993-94 IPEDS IC file, subsetted to those from which the sample was selected.

#### 2.2.2.1 Basic Student Sample

The postsecondary students eligible for NPSAS:96 were those who attended a NPSAS-eligible institution during the previously defined NPSAS year and who were:

- enrolled in *either* (a) an academic program; (b) at least one course for credit that could be applied toward fulfilling the requirements for an academic degree; or (c) an occupational or vocational program that required at least 3 months or 300 clock hours of instruction to receive a degree, certificate, or other formal award;
- not concurrently enrolled in high school; and
- not enrolled solely in a GED or other high school completion program.

#### **Construction of Initial Sampling Frames**

Each sampled institution was that was verified as NPSAS-eligible was asked to provide lists of all its students who satisfied all the NPSAS eligibility conditions, preferably nonduplicated, machine-readable lists (diskette, magnetic tape, or electronic mail file), together with identifying and classifying information (see section 2.3.2 below). Although machine-readable files were preferred, the preferences of sample institutions were accommodated, and whatever type(s) of student list(s) they were able to provide were accepted. Separate, unduplicated lists (in which each student's name appears only once) were requested for first-time beginning, other undergraduate, graduate, and first-professional students (the basic strata) were requested of those providing hard copy lists. As expected, however, many institutions sent separate lists for each term or course of instruction; in which cases an individual student's name could appear on more than one list. In such cases, selected samples were "unduplicated" to ensure that each student received only one chance of selection.

As student lists were received from institutions, students were sampled.<sup>21</sup> Stratified systematic sampling was used to ensure comparable sampling procedures for both hard-copy and machine-readable lists. In the case of duplicated hard-copy lists, a stratified systematic sample was selected from each list provided (typically separate lists by term) and the *samples* selected were "unduplicated" against master lists (see Appendix A).<sup>22</sup> After the sample of students had been selected for an institution, Social Security numbers of those sampled were compared to those of students who had already been selected from other institutions to eliminate cross-institution duplication. Multiplicity adjustments in the sample weighting (see below, Chapter 6) accounted for the fact that any students who attended more than one institution during the NPSAS year had more than one chance of selection.

<sup>&</sup>lt;sup>22</sup>The fall term was given precedence in this process for comparability with NPSAS:87. If the institution did not have standard terms, other orderings of the student lists were used to achieve unduplication of the sample.



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<sup>&</sup>lt;sup>21</sup>Machine-readable lists were unduplicated by sorting on the student ID number and deleting duplicates prior to sample selection.

Initial student sampling rates were calculated for each sample institution using refined overall rates (see Appendix A) to approximate equal probabilities of selection within the ultimate institution-by-student sampling strata. However, these rates were sometimes modified for reasons listed below.

- The student sampling rates were increased, as needed, so that the sample size achieved at each sample institution would be at least 40 sample students, where possible.<sup>23</sup>
- The student sampling rates were decreased if the sample size was more than 50 greater than the institution had been told to expect.<sup>24</sup>
- The sample yield was monitored throughout the several months during which student lists were received, and the student sampling rates were adjusted periodically to ensure that the desired student sample sizes were achieved.

These adjustments to the initial sampling rates (especially the first two types of adjustments) resulted in some additional variability in the student sampling rates, and, hence, in some increase in survey design effects (variance inflation--see Chapter 6).

The actual sample sizes achieved in total and within each institutional and student stratum are shown in **Table 2.4.** In general, the 836 eligible and participating institutions classified fewer students than expected as potential FTBs; consequently, sampling rates for FTBs were increased to obtain the needed sample yield.<sup>25</sup> By comparing Table 2.4 with Table 2.1, it can be seen that the rate adjustment procedures were generally effective; the overall sample yield was actually greater than expected (63,616 students as compared to the target of 59,509).

#### 2.2.2.2 Student Interview Subsample

The student interview sampling design for NPSAS:96 required subsampling of those eligible students for whom CADE data had been obtained. In this subsampling, an attempt was made to maximize sample yield (completed interviews) without sacrificing response rates by using a two-phase, nonresponse subsampling design.

<sup>&</sup>lt;sup>25</sup>For 35 four-year institutions, this rate was increased by selecting a supplemental sample.



<sup>&</sup>lt;sup>23</sup>The reason for this constraint was to facilitate obtaining at least 30 responding students for most participating institutions, enabling NCES to send a report to the institution regarding its sample students, as a "Thank You" for participation without violating NCES confidentiality guidelines.

<sup>&</sup>lt;sup>24</sup>This was to facilitate continued participation by the institutions for CADE data abstraction.

Table 2.4—Realized student sample, by institutional and student strata

The second secon			tratum		
Institutional stratum	Total	Potential FTBs	Other undergraduates	Graduate students	First- professional students
Total	63,616	23,612	27,536	9,689	2,779 <sup>a</sup>
1. Public, less-than-2-year	1,662	1,016	646	†	+
2. Public, 2-year	8,476	4,434	4,042	+	+
3. Public, 4-year, non-doctorate-granting	10,891	3,629	5,454	1,805	+
4. Public, 4-year, doctorate-granting	14,751	3,631	6,228	3,757	1,135
5. Private, not-for-profit, less-than-4-year	2,507	1,404	1,103	†	+
<ul> <li>6. Private, not-for-profit, 4-year, non-doctorate granting</li> <li>7. Private, not-for-profit, 4-year, doctorate-</li> </ul>	7,734	2,253	3,614	1,857	†
granting	10,668	2,639	4,353	2,049	1,627
8. Private, for-profit, less-than-2-year	3,414	2,933	481	†	†
9. Private, for-profit, 2-year or more	3,513 <sup>a</sup>	1,673	1,615	221	, +

Note: The student sample was drawn from 836 schools determined to be eligible and providing lists.

When EDI from the ED Central Processing System (CPS) and CADE data collection were completed for a sample institution, the students who had not been identified as ineligible through previously collected data, and for whom such previously collected data were sufficient, were considered eligible for CATI.<sup>26</sup> Basically, all eligible sample students from schools that provided institutional records data were eligible for Phase 1 interviewing.<sup>27</sup> Interview-eligibles were partitioned into seven previously identified strata for the Phase 1 interviewing subsampling.

The student subsample for Phase 1 of interviewing is shown in Table 2.5. Potential FTBs and federal aid applicants were selected for Phase 1 interviewing with certainty. Excepting potential FTBs, 28 the Phase 1 (and subsequent Phase 2) subsampling rates were set to yield an appropriate compromise between high sample yield (high Phase 1 sampling rates and low Phase 2 sampling rates) and low variance inflation (comparable Phase 1 and Phase 2 sampling rates).

<sup>&</sup>lt;sup>28</sup>All potential FTBs were also retained for both Phase 1 and Phase 2 because of the need to obtain as many interviews with FTBs as possible for the BPS longitudinal follow-up study.



<sup>&</sup>lt;sup>a</sup>Totals shown include a small number of first-professional students, not shown separately.

<sup>&</sup>lt;sup>†</sup>Not applicable.

<sup>&</sup>lt;sup>26</sup>For the few institutions that either provided no records data or provided them only after the interview subsamples, this determination of eligibility was based on CPS data alone.

<sup>&</sup>lt;sup>27</sup>Among the institutions that did not provide institutional record data (or provided them late), most sample students with CPS matches were eligible for interviews. The weight adjustment for records data/CPS nonresponse accounts for the fact that only students with CPS matches (aid applicants) were eligible for interviewing in these institutions (see Chapter 6).

Table 2.5—Phase 1 student interview subsampling

Student interview sampling stratum <sup>a</sup>	Number eligible for phase 1 <sup>b</sup>	Sampling rate <sup>c</sup>	Number selected
All students	59,593	0.859	51,195
Potential FTB	20,555	1.000	20,555
Other undergraduate, federal aid applicant	13,758	1.000	13,758
Other undergraduate, not federal aid applicant	13,554	0.703	9,532
Graduate student, federal aid applicant	2,065	1.000	2,065
Graduate student, not federal aid applicant	7,202	0.416	2,999
First-professional, federal aid applicant	1,893	1.000	1,893
First-professional, not federal aid applicant	566	0.694	393

<sup>&</sup>lt;sup>a</sup>Reflects student reclassification as a result of records data.

Phase 1 of CATI was defined to end when six telephone calls had been attempted without obtaining a completed interview, or the student:

- or his/her parent had been interviewed;
- was determined to be ineligible for NPSAS;
- initially refused to participate;
- required intensive tracing procedures, or
- was determined to be in a special population (i.e., deaf or language barrier).

All students for whom the sixth call in Phase 1 resulted in a "hard" appointment or for whom a partial interview had been completed (with either the sample student or the student's parent—see **Chapter 3**) were retained for Phase 2 with certainty, as were all students in the potential FTB stratum. The remaining Phase 1 nonrespondents, who had not been determined ineligibles or exclusions during Phase 1, were subsampled for Phase 2 using specified rates. The numbers of eligible cases for Phase 2, numbers of certainty selections, sampling rates for noncertainty selections, and total Phase 2 selections are shown in **Table 2.6**.

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<sup>&</sup>lt;sup>b</sup> Excludes 1,593 CADE nonrespondents and 2,403 sample members determined ineligible for NPSAS from records data.

<sup>&</sup>lt;sup>c</sup>Reflects average rate across all sequential samples implemented.

Table 2.6—Phase 2 student interview subsampling

Student interview sampling stratum <sup>a</sup>	Number eligible <sup>b</sup>	Certainty selection	Sampling rate <sup>c</sup>	Total selection
All students	37,814	23,402	0.262	27,178
Potential FTB	14,248	14,248	*	14,248
Other undergraduate, federal aid applicant	10,515	4,312	0.264	5,952
Other undergraduate, not federal aid				
applicant	7,544	2,733	0.261	3,989
Graduate student, federal aid applicant	1,493	598	0.287	855
Graduate student, not federal aid applicant	2,220	864	0.255	1,210
First-professional, federal aid applicant	1,479	540	0.213	740
First-professional, not federal aid applicant	320	107	0.362	184

<sup>&</sup>lt;sup>a</sup>Reflects student reclassification as a result of records data.

#### 2.2.2.3 Other Subsamples

Some additional subsampling of students, described below, was accomplished during the course of NPSAS:96 in order to: (a) complete important gaps in available data about the student's family financial information, or (b) provide the basis for methodological studies.

#### **Reliability Reinterview Subsample**

Among eligible sample members who *completed* the NPSAS:96 interview, a subsample was selected to participate in a reliability reinterview. A random selection algorithm was programmed directly into the CATI instrument so that selected respondents could be informed of their selection and allowed an opportunity to agree to the reinterview or to refuse it at that time.

The selection rate was set to yield a sample of approximately 300 students among the expected respondents during the first three months of interviewing; the time factor was based on the built-in delay in administering the reinterview and the need to complete reinterviews within the same time frame as other interviews. Consequently, the sample was obviously most heavily weighted with students: (a) from institutions at which prior sequential operations (initial sampling, record abstraction) were completed earlier, and (b) who completed the first interview relatively early during the data collection period. Since fewer completions than anticipated were experienced during the first 3 months (see Chapter 3), the reinterview sample yield during that period was 273 students.



<sup>&</sup>lt;sup>b</sup>Excludes Phase 1 respondents and sample members determined to be NPSAS ineligible (N=521) or exclusions (N=57) during Phase 1.

<sup>&</sup>lt;sup>c</sup>Reflects average rate across all samples implemented, excluding certainty selections.

<sup>\*</sup>FTBs were not subsampled in Phase 2.

#### **Parent Interview Subsample**

A subsample of the students selected for Phase 1 interviewing also were selected to have their parents interviewed, in order to obtain valid data regarding parents' financial resources (typically not well known by the student). The main purpose of the parent interview was to reduce the number of students, especially dependent students, <sup>29</sup> for whom the parents' income would otherwise have to be imputed. Another purpose was to collect parent income data for students who had recently become independent students (for the purposes of federal financial aid applications) as a result of recently becoming 24 years old. <sup>30</sup>

Consequently, all the students in the three previously-identified student sampling strata were selected with certainty for parent interviews. The strata were developed at the conclusion of institutional records collection, and the parent interview subsample was identified among those students selected for Phase 1 interviewing. When the student had been selected for parent interview and either a student interview had been completed in Phase 1 or the student had been selected for Phase 2, the parent interview was attempted throughout the remainder of the CATI interview period. The numbers of students selected for parent interviewing in Phase 1 and in Phase 2, are shown in **Table 2.7** for each of the three parent sampling strata.

Table 2.7—Numbers of students selected for parent interviewing

	Phase 1			Phase 2		
Parent sampling stratum <sup>a</sup>	Number of students eligible	Number of students selected	Effective sampling rate <sup>c</sup>	Number of students eligible <sup>d</sup>	Number of students selected <sup>e</sup>	Effective sampling rate
Total	9,251	8,803	.952	7,687	6,197	0.806
Dependent undergraduate students not receiving financial aid	4,195	4,117	.981	3,520	2,991	0.850
Dependent undergraduate students, receiving financial aid, whose parents' adjusted gross income was missing from institutional records	1,731	1,710	.988	1,439	1,271	0.856
24- and 25-year-old (newly independent) undergraduate students	3,325	2,976	.895	2,728	1,935	0.709

<sup>&</sup>lt;sup>a</sup>Reflects student reclassification as a result of records data.

<sup>&</sup>lt;sup>30</sup>Parent data for these students will reduce reliance on imputed parent incomes when analyzing the effect that becoming classified as an independent student has on financing postsecondary education.



<sup>&</sup>lt;sup>b</sup>This represents all eligible students in defined strata prior to Phase 1 sampling.

<sup>&</sup>lt;sup>c</sup>This rate reflects only the overall Phase 1 student sampling (average rate across all sequential sampling implemented); all students within these defined strata, who were selected for Phase 1, were designated with certainty for parent interview.

<sup>&</sup>lt;sup>d</sup>Excludes Phase 1 respondents and sample members determined to be NPSAS ineligible or exclusions during Phase 1.

<sup>&</sup>lt;sup>e</sup>Includes certainty selections.

Reflects average rate across all samples implemented (consequently, this rate includes Phase 2 certainty selections).

<sup>&</sup>lt;sup>29</sup>An important historical gap in NPSAS student data has been the income of parents of dependent students who do not apply for financial aid; among those applying for (and/or receiving) aid, these data are usually obtained from existing records.

#### 2.3 Data Collection and Operational Design

NPSAS:96 involved a multistage effort in collecting information related to student aid. For the first time in the NPSAS series, an initial NPSAS:96 data collection stage was planned, which involved collecting electronic SAR (ESAR) information directly from the Department of Education Central Processing System (CPS) for federal aid applications.<sup>31</sup> A second stage involved abstracting information from the student's records at the school from which he or she was sampled; starting with NPSAS:93, these data have been collected through a Computer Assisted Data Entry (CADE) system (to facilitate both collection and transfer of the information to subsequent electronic systems). As in NPSAS:93, the CADE collection system was implemented, at institutional choice, by either school staff or field interviewers employed by the contractor.

A third stage involved interviews with students (and in some cases their parents); as in all prior implementations of NPSAS, this data collection activity was conducted through a Computer Assisted Telephone Interviewing (CATI) procedure. For the first time in NPSAS implementations, only a subsample of the initial student sample was selected for the interview stage (in order to reduce overall costs for the NPSAS study). Final stages (again, for all eligible initial sample members) involved collecting additional ESAR data for the following (1996-97) academic year, and collecting information from the Pell-Grant File and the NSLDS file maintained by ED. Both the "following year" ESAR data and the NSLDS data represented additions to the NPSAS data base that were first introduced during NPSAS:96.

A schematic of the operational flow of major data collection components of the NPSAS:96 study is shown in **Figure 2.2** and summarized in subsequent subsections. It should be noted that to meet established dates for conclusion of all study activities, while accommodating both differential dates at which student sampling could be initiated and differential timeliness of institutional turnaround, not all stages were implemented at the same time at all institutions. In fact the only fixed points in operations were: (a) selection of the institutional sample and initial institutional mailings; (b) cut-off of interviewing; and (c) the "Post CATI" collection of electronic data from existing ED data files.

Start and end dates for the several study activities are shown in **Table 2.8.** The extent of activity overlap is clearly evident from this table. As examples: (a) the CADE record abstraction procedures had been ongoing for five months before the last student sample was selected; and (b) the cut-off date from preloading CADE data into the CATI records (necessary for CATI operations to commence) occurred almost 6 months after the initiation of CATI.

<sup>&</sup>lt;sup>32</sup>It was actually necessary to obtain some of these data prior to the time CATI activities were concluded.



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<sup>&</sup>lt;sup>31</sup>The contractor for this service is National Computer Systems (NCS). Students complete a Free Application for Federal Student Aid (FAFSA), which is mailed to the CPS contractor; this information is entered into the computer file and electronic versions of the SAR are created. The SAR information is made available to all institutions that the student indicates.

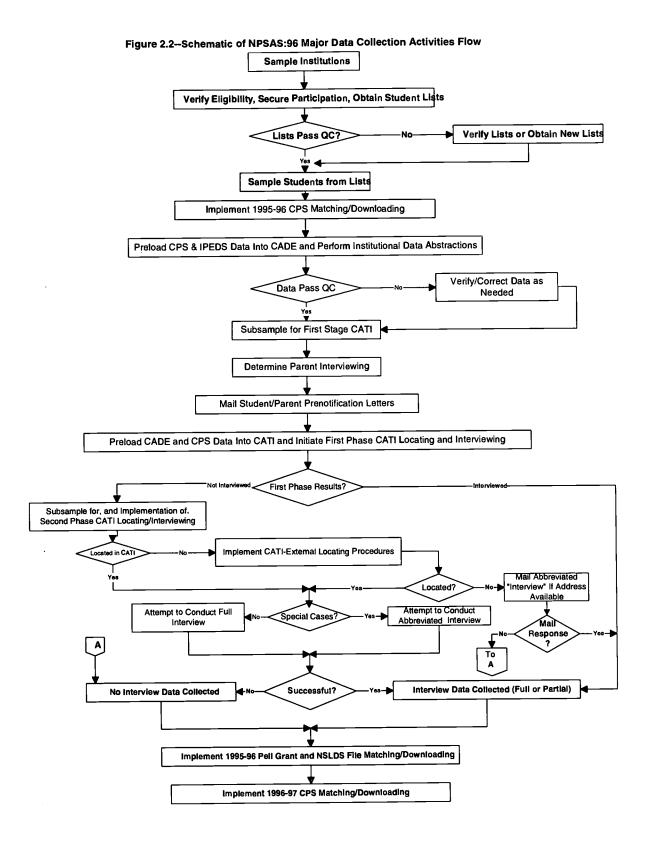




Table 2.8 — Start and end dates for major NPSAS:96 activities

Activity	Start date a	End date b
Select institutional sample <sup>c</sup>	12/10/94	12/10/94
Mail and phone contact with chief administrator	11/03/95	04/29/95
Mail and phone contact with institutional coordinator	01/11/96	08/22/96
Obtaining lists for student sampling	01/31/96	08/24/96
Select student samples	02/22/96	08/25/96
Request/obtain 1995-96 CPS data	03/05/96	09/05/96
Preload CPS data into CADE records	03/07/96	09/06/96
Implement CADE record abstraction d	03/22/96	12/12/96
Preload CADE data into CATI records <sup>d</sup>	05/06/96	10/25/96
Implement CATI interviewing (and related data collection) for students and parents	05/06/96	12/31/96
Request/obtain 1996-97 CPS data	02/18/97	02/27/97
Request/obtain 1995-96 Pell Grant data	12/03/96	01/27/97
Request/obtain historical NSLDS data (through fall 1996)	11/27/96	12/16/96

<sup>&</sup>lt;sup>a</sup>Date on which the activity was initiated for the first applicable school and/or its associated students (and parents).

## 2.3.1 Overview of Data Collection Instruments and Extant Data Sources

As noted previously, some study data were obtained from extant data bases. Information related to application for financial aid was obtained (for two academic years) from a central data system, the CPS (which is operated for ED by a separate contractor). This information is provided by students to the CPS contractor on a Free Application for Federal Student Aid (FAFSA) form and then converted to electronic form, analyzed, and provided to involved schools (and other approved parties) in ESAR or hard-copy SAR form. (To see the type of information available from the SAR, see the SAR section in Appendix C). Additionally, data on nature and amounts of received Pell Grant or NSLDS loans were obtained from other extant data bases maintained by ED. The Pell Grant file that was accessed was for the 1995-96 academic year. Data obtained from the NSLDS file were loan histories for each applicable student.



<sup>&</sup>lt;sup>b</sup>Date on which the activity was completed for the last applicable school and/or its associated students (and parents).

The institutional sample was drawn prior to selecting the field-test sample to ensure no overlap of the two.

<sup>&</sup>lt;sup>d</sup>Eight institutions provided CADE data after the cut-off date for using those data in CATI.

The record abstraction instrument was programmed for CADE implementation. Each CADE student record was divided into three major sections (reflecting typically different physical locations of the records on campus) and eight subsections; this structure is shown in Figure 2.3. CADE was programmed so that this structure was not restrictive in access; specifically, the record abstractor could access any subsection through a menu and enter (or change) any data element in the section through scrolling. A summary of the major data elements collected through CADE is summarized below, by subsection.

- Locating. Collected up to four addresses and telephone numbers for student and/or parent/guardian (if not the student, names and relationship to student were collected).
- Characteristics. Collected student demographics (e.g., race, ethnicity, marital status, gender, date of birth, citizenship), type of high school diploma, and high school graduation date.

Registration and Admissions

Enrollment and Tuition

Financial Aid

Awards

Characteristics

Tuition

Awards

Admissions

SAR

Figure 2.3—Structure of the NPSAS:96 CADE instrument



- Admissions. Collected standardized test scores.
- Enrollment. Collected dates of terms of enrollment during the NPSAS year, student level in first and last applicable term, degree program, and number of credits transferred.
- Tuition. Collected tuition accruing to student for each term enrolled.
- Awards. Collected the type/nature of all financial aid awards and the amount of aid associated with such awards.
- Need Analysis. Collected aid budget data, EFC, dependency status, and housing status.
- SAR. Collected selected information from the SAR; any such information collected through the CPS requests was preloaded (typically resulting in the completion of this subsection during preload).

A facsimile of the CADE instrument, identifying all data elements collected and the exact wording of the screens, is provided as Appendix C.

Several forms of student interview existed; however, the principal form was the full interview, which was programmed for CATI administration. The full interview consisted of 10 sections.<sup>33</sup> A depiction of the nature of, and the flow through the 10 student interview sections is shown in **Figure 2.4**. Progression through the sections is ordered to collect the most important data early in the interview. Of particular note is Section A; in this section final checks of study eligibility and FTB status were determined. A facsimile student interview is provided in Appendix D.

Three sets of abbreviated interviews were conducted, in special cases. First, the planned reliability reinterview study used an interview containing only a small subset of the items in the full student interview. Second, an abbreviated interview was developed (containing only selected items) for CATI administration to Spanish speakers with limited English proficiency.<sup>34</sup> The questions in this abbreviated interview were also reproduced, in Spanish and English language hard-copy versions, and mailed, for completion, to the hearing impaired (who completed only Section A--establishing study eligibility-- through TDD) and/or (if address was available) to those who could not be reached by phone or who indicated that they would complete a mailed copy but would *not* participate in a telephone interview.

<sup>&</sup>lt;sup>34</sup>Spanish speakers who were relatively comfortable with English were guided through the full interview by bilingual interviewers; however, translation "on the fly" of the full interview to one with severe limitations in oral English was considered inappropriate.



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<sup>&</sup>lt;sup>33</sup>While the logical flow within an interview is generally constrained to be linear (with forward branching as applicable), this is even more important in CATI, where previously supplied responses control subsequent branching items. Nonetheless, standard features were available to allow interviewers to back-up in the interview to change prior responses based on information provided subsequently.

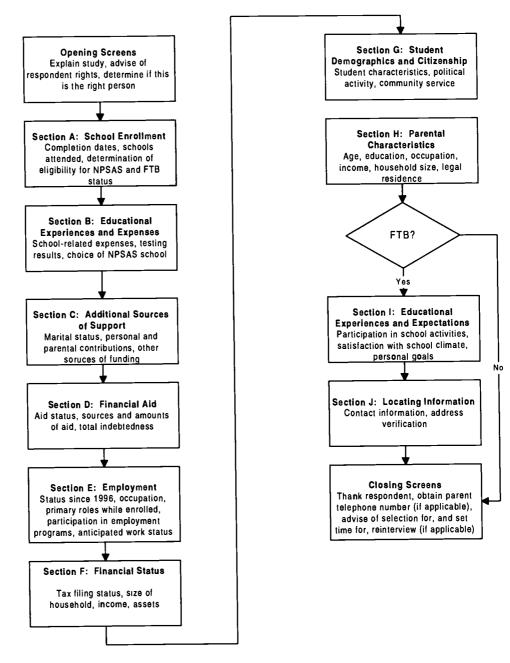


Figure 2.4--Structure and flow of NPSAS:96 field test student CATI

Note: In addition to SKIP patterns shown, which involve entire sections, many subsections of the interview were applicable only to specific student subgroups (e.g., FTBs, graduate students, aid recipients, married students).

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The abbreviated instruments contained 39 key questions, including some detailed multiple response questions regarding amounts of aid and expenses.

Finally, a minimal interview was developed for CATI administration to sample members who had refused to participate on *at least* two different occasions, but who agreed to "answer just a few questions (five minutes or less)." In addition to the information needed to establish NPSAS eligibility and FTB status, this interview collected only "broad stroke" data on degree program, student level, completion of programs, schools attended and how long (during NPSAS year), courseload, job load while enrolled, receipt of any aid, date of birth, marital status, number of dependents, amount ever borrowed for education, and disability status. A facsimile copy of the minimum interview as well as copies of other abbreviated interviews/questionnaires are provided in Appendix D.

The parent supplement interview (where applicable) was maintained within the same record as the student interview; this allowed the parent to be interviewed "on the spot" should that parent be contacted in attempting to locate the student.<sup>35</sup> The parent interview (a facsimile copy of which is included in Appendix D), contained five sections: (a) parental support; (b) total borrowing for education of all dependents; (c) employment and financial status; (d) reasons for not seeking financial aid, and activities in school selection; and (e) parent demographics.

### 2.3.2 Institutional Enlistment and Student List Acquisition and Sampling

Once institutions were sampled, attempts were made to contact the Chief Administrator of selected institutions to (a) advise on sample selection, (b) advise on study requirements and solicit participation, (c) request appointment of an Institutional Coordinator (IC), through which subsequent communication with, and requests of, the institution would be directed, and (d) verify institutional eligibility. The initial letter, on U.S. Deprtment of Education letterhead, included a study fact sheet and endorsement letters, as appropriate, from the National Association of Financial Aid Administrators (NASFAA), the American Association of College Registrars and Admissions Officers (AACRAO), the Career College Association (CCA), and the National Accrediting Commission of Cosmetology Arts and Sciences (NACCAS). Concurrently, NASFAA mailed directly a separate letter urging participation to the Financial Aid Officers of all member institutions sampled for the field test. (Copies of these letters and attachments, as well as all other correspondence mailed to sampled institutions, students, or parents during the course of the field test, are included in Appendix B). Follow-up telephone calls were made to the Chief Administrator one week after the mailing; if the IC had not been named by that time, he/she was urged to do so (with varying degrees of success) during the telephone conversation.

<sup>&</sup>lt;sup>35</sup>It was recognized that this procedure would result in some wasted effort if the student was subsequently determined to be ineligible for NPSAS; however, this was more than compensated for by the savings from not having to try to relocate the parent.



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Separate mailings to the ICs (containing all materials included in the initial mailing to the Chief Administrator) were initiated on a flow basis, as the ICs were designated. Follow-up telephone calls were, again, initiated one week following the mailing (the initial contact with the ICs typically involved a series of calls, including refusal conversion calls). ICs were advised of what would be expected from the school and asked to verify the IPEDS classification (institutional control and highest level of offering) and the calendar system used (including dates that terms started). ICs were also asked to (a) provide information on the school's record keeping approaches (including identifying the physical on-campus location of records needed for the subsequent record abstraction procedures), (b) identify their PC capabilities for operating the CADE software, and (c) set a date by which the school would provide student enrollment lists.

The list(s) requested (preferably a single unduplicated electronic list) were to contain all eligible students enrolled in any term starting within the study-defined year. (Sampled schools with additional NPSAS-year terms starting after the date of the request obviously could not provide complete lists until after the last applicable term began.) The data items requested for each listed student were:

- full name;
- student identification (ID) number;
- Social Security number (possibly identical with student ID);
- educational level -- undergraduate, graduate or first professional--during the *last* term of enrollment during the study-defined year; and
- an indication of FTB status: as an undergraduate student who first enrolled at the school during a term in the study-defined year; who was classified as freshman or first-year student at that time; and who had no transfer credits from another postsecondary institution.

Definitions of types of lists and information preferred, as well as instructions for preparing different forms of lists were included in the initial IC letter and further clarified, as needed, in follow-up telephone conversations. In such subsequent telephone contacts, contractor staff worked closely with the IC to determine the best reasonable alternative lists and student information that could be provided by the institution.

Prompting telephone calls were made to institutions that had not provided lists by one week following the most recent delivery date previously agreed upon by the IC. Throughout the list acquisition process, attempts were made by the contractor to accommodate school constraints and to reduce their burden, including contractor unduplication of lists. Where requested, institutions were reimbursed for personnel and computer time in list preparation.



Several checks on quality and completeness of provided student lists were implemented prior to actual student sampling. Institutions providing lists that failed these checks were called to rectify the detected problems. Completeness checks were failed if either of the below-listed conditions existed:

- potential FTBs were not identified (unless the institution explicitly indicated that no such students existed in their school); or
- student level--undergraduate, graduate, or first professional--was not clearly identified.

Quality checks were performed by checking the unduplicated count from provided lists against the *non-imputed* unduplicated counts from IPEDS IC files.<sup>36</sup> Nonimputed counts were available for quality checks for approximately 95 percent of the institutions. For applicable schools, separate checks were made for undergraduate, graduate, and first professional students; for schools serving only undergraduates, checks were made against total enrollment. Initially, the institution failed the check if the count for any unduplicated list differed by 25 percent from the IPEDS *non-imputed* count.<sup>37</sup> In early May, with NCES approval, the quality checks were considerably relaxed.<sup>38</sup> The revised checks remained in effect throughout the remainder of student sampling.

### 2.3.3 Student Record Abstraction

All prior NPSAS implementations have relied on collecting data of record regarding student financial need and aid as well as other features of his/her education, in order to: (a) reduce responding burden on the sampled students, and (b) obtain much more valid data than could be obtained through student interviews. In addition to collecting information from institutional files and from ED Pell Grant files (both of which have been accessed in prior NPSAS studies), NPSAS:96 also collected electronic SAR data of record from the ED CPS and from the ED NSLDS files. Both of these data collection activities also expanded the time horizon of data for the current NPSAS study. SAR data were obtained for both the NPSAS year (1995-96) and through February of the subsequent academic year (1996-97); NSLDS data were obtained historically over all years of postsecondary education through the 1995-96 academic year.

<sup>&</sup>lt;sup>38</sup>Revised procedures involved: (a) no checks for less-than-2-year institutions, since most (68 percent) were failing the checks but few (9 percent) were providing replacement lists; and (b) lists passed the checks if the student count differed from the IPEDS count for that type of student by 500 students or more and the IPEDS count was not zero.



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<sup>&</sup>lt;sup>36</sup>The order of preference was the 1994-95 IPEDS file or the 1993-94 IPEDS file (from which the institutional frame was constructed). If counts on both these files were imputed, no quality check was performed.

<sup>&</sup>lt;sup>37</sup>If provided lists were not unduplicated, the contractor estimated the unduplicated total by applying an empirically determined multiplicity factor to the count over provided lists; in these cases, the critical difference was also relaxed to 30 percent.

### 2.3.3.1 CPS Electronic Data Interchange (EDI) for SAR Data

To reduce institutional burden in the subsequent institutional record abstraction, the NPSAS:96 contractor, with the assistance of NCES, arranged to obtain, through EDI, information from the Central Processing System, the CPS (which is operated for the Department of Education by a separate contractor, National Computer Systems - NCS). The data accessed included information from the FAFSA (provided by all federal financial aid applicants) and SAR. Generally, all such initial EDIs of SAR data were completed for an institution before CADE record abstraction was attempted for that institution.

### 2.3.3.2 CADE Data Abstraction from Students' Institutional Records

Data from sampled students' records at the NPSAS institution were collected using CADE technology, representing a refinement the procedures first used in NPSAS:93. CADE was programmed in CASES 4.1, for compatibility with CATI (see Section 2.3.4) and the Data Elements Dictionary used (see Section 2.3.6). Institutions were urged to have their own staff accomplish these activities, using the software, since this provided both cost efficiencies and better confidentiality protection for records of students not selected for the study. However, institutions were given the option of having the abstraction done by field data collectors (FDCs) employed by the contractor. Following the receipt of CPS information for students from an eligible institution, CADE materials and related information were prepared and packaged for delivery to either the IC or FDC, depending on stated institutional preference (which subsequently changed in some cases).<sup>39</sup>

To reduce burden in the CADE record abstractions, a number of data elements were preloaded into the CADE records for a particular institution. These preloaded elements included (a) CPS data, including the full SAR (where obtained), (b) previously verified institutional characteristics and identifiers from the contractor sampling files (e.g., level of offering, control, calendar system, institution-specific dates for terms of enrollment, grading system, stratum, whether clock or credit hours were awarded), (c) student names, ID numbers, and sampling strata (from the contractor sampling files), and (d) customized additional financial aid sources/programs unique to the specific institution and associated state.

The preloaded CADE packages were distributed on a flow basis to either the IC (on floppy disks) or to the FDC (electronically). Packages also included a hard-copy Users' Guide, an embedded programmed Tutorial, and a Fact Sheet (which summarized information previously provided by the institution regarding the physical campus location of relevant data). Associated refinements to the CADE software included:

• installation checks, to determine if PC limitations would create problems in operation CADE (if so, a message was displayed stating the problem and providing a contractor "hot line" number to call for assistance);

<sup>&</sup>lt;sup>39</sup>Some institutions eventually photocopied relevant records and provided them to the FIs or contractor central staff for direct entry into CADE.



- quality control checks to identify (and notify the user of) student records that were incomplete (and the area of incompleteness) or had not yet been accessed (when trying to close either an individual student record or the entire CADE package); and
- a pop-up screen showing overall full and partial completion rates for record abstraction at the institution.

Weekly telephone calls were initiated to ICs or FDCs (as applicable) to determine completion status for each school that was still active at that time. While CADE receipt was on a flow basis over institutions, the CADE package for a specific institution was not returned until it was completed. On receipt of the CADE package, each record was subjected to edit checks for completeness of critical items. Data from an institution failed the edit check if 50 percent or more of the student records failed all edit checks or if any anomalous data patterns were observed.<sup>40</sup>

Study plans called for completion of the institutional record abstracting at a school before students from that school were interviewed (to allow preloading of the CADE data into the student CATI record). This was the case for all but 40 schools, which had agreed to provide CADE data but had not done so prior to the last date that CATI could be initiated. CATI was initiated for students from these schools prior to receipt of CADE data, but special requests were also made of these schools to provide hard copy transcript and financial aid information in hard copy form.<sup>41</sup>

### 2.3.3.3 Other Post Hoc Student Record Data Obtained

Two additional EDI operations were performed shortly before the conclusion of CATI. Consistent with prior NPSAS studies, data were obtained from the ED 1995-96 Pell Grant files regarding applications for, and receipt of, Pell Grants. To facilitate the timely preparation of data files, this operation was initiated about four weeks prior to the cut-off date for interviewing. All initial sample members<sup>42</sup> with "apparently" valid SSNs at time (62,717 sample members) were submitted for potential matching to the ED files.<sup>43</sup> Extracted data from matching Pell Grant records<sup>44</sup> were downloaded and added to the data base.

<sup>&</sup>lt;sup>44</sup>Some students yielded multiple record matches, indicating Pell Grant activity at two institutions during the NPSAS year.



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<sup>&</sup>lt;sup>40</sup>Institutional failure of the edit check procedure led to follow-up contact with the involved IC toward resolving the existing problems.

<sup>&</sup>lt;sup>41</sup>Response to this request considerably exceeded expectations (see Chapter 3).

<sup>&</sup>lt;sup>42</sup>Since this submission was accomplished prior to final data cleaning, even those sample members classified at that time as "ineligible" were submitted for matching.

<sup>&</sup>lt;sup>43</sup>Additional delay of this activity until completion of CATI would have resulted in only a handful of additional students for whom valid SSNs were available.

NPSAS:96 represented the first attempt to incorporate data from the ED NSLDS files. This EDI activity was accomplished in roughly the same time frame as the Pell Grant matching and again was attempted only for the 62,717 initial sample members with apparently valid SSNs at the time of matching. Because the NSLDS file is cumulative, full histories (through the 1995-96 academic year) of NSLDS activity were obtained for matches.

### 2.3.4 Student and Parent Locating and Interviewing

NPSAS:96 student and parent interviews were principally conducted by telephone, using CATI technology, as has been the case for all prior NPSAS interviews. Like CADE, CATI was developed using CASES 4.1 software to facilitate preloading full-screen data entry and editing of "matrix-type" questions. The CATI system presented interviewers with screens of questions to be asked of the respondents, with the software guiding the interviewer and respondent through the interview, automatically skipping inapplicable questions based on prior response patterns or suggesting appropriate wording for probes should a respondent pause or seem uncertain in answering a question. Unlike prior NPSAS studies, CATI was initiated for only a subsample of the original student sample (see Section 2.2.2.2).

Prior to initiating CATI, notification letters, on Department of Education stationery and with attachments, were mailed to students (and parents, where applicable). These letters (copies provided in Appendix B) notified sample member of the upcoming survey, pointed out the importance of the study, disclosed average time burden, and urged participation.

Associated with the interviewing (and partially imbedded in the CATI instrument) was the necessity (due to incomplete or incorrect telephone numbers), in many cases, to locate the sample members. A major locating challenge for sample members at many institutions was the fact that by the time CATI was initiated, those individuals had moved from their "local" (school) address. To facilitate the tracing component, each CATI record contained roster lines for up to 20 telephone numbers (including numbers for individuals identified as tracing sources); each such roster line was associated with a history of the dates and results of all calls made to that number and a number-specific comment field. Locating calls, as well as interviews, were initiated according to a calling plan using an automatic call scheduler imbedded within the CATI software. This system allowed calls to be scheduled on the basis of established case priority, time of day, and history of success of prior calls at different times and on different days. It also allowed "special queue" access of certain special cases (e.g., limited English proficiency, prior refusals) *only* by appropriate special interviewers (e.g., bilingual interviewers, special "refusal converters").

If initial CATI tracing efforts (using information preloaded) failed, then CATI external student/parent tracing activities were executed. Such activities generally involved searches, by subcontractors, of various electronic databases. The specific CATI-external tracing activities are listed below (the order of listing generally represents the order in which these activities were sequentially implemented and increasing unit costs of the activities).

- Referral to Fast Data. This is a service whereby telephone numbers are obtained for known names and/or addresses through matching to an exiting national telephone data base. Matched cases were returned within 24 hours of submission. 46
- Referral to Equifax. Equifax maintains credit files on a large number of individuals. Available databases include names, social security numbers, and current and former addresses and telephone numbers of individuals for whom credit histories have been assembled. Equifax also has arrangements with some states to access their drivers license databases. First, Equifax attempted a match with the electronic data; if this was unfruitful, an Equifax tracing expert reviewed the hard copy printout for possible leads, and implemented a check of such leads, if deemed appropriate. Turnaround was typically within two weeks.
- Referral to Telematch. This step was only used if Equifax returned an updated address without a telephone number. Tracing activity involved comparing the name and address to a database containing every published telephone number in the United States, with associated names and addresses. Turnaround was typically within 2 days.

To reduce interview burden and to guide the interview through appropriate branchings (e.g., questions appropriate only for graduate students), considerable information, in addition to tracing data, was preloaded into the CATI records prior to interviewing. Such preloaded information included (a) data previously collected through CPS and/or CADE; and (b) information from the sampling file (e.g., name, Social Security number, school name, school and student stratum). In a number of instances, specific questionnaire items were not asked (or only verified) if that information had been collected previously.<sup>47</sup>

Preloading and implementing CATI occurred on a flow basis, as the CADE results were received from the institutions. As indicated previously (section 2.3.3.2), this general approach did not hold for sample members at 40 institutions that delayed CADE submission beyond the deadline for CATI with initiation; CATI was attempted for such students without benefit of preloaded CADE data, but other preload data (e.g., CPS data) were included, where available. NCES-developed, on-line coding programs (for industry/occupation, IPEDS, and field of study coding) were imbedded in the overall interview administration system. These allow standard coding of responses while the respondent is still available to assist.

<sup>&</sup>lt;sup>47</sup>The NPSAS:93 experience suggested a number of areas in which interview information should be collected even though comparable data from student records had been collected.



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<sup>&</sup>lt;sup>45</sup>Effectively, this represented an outsourcing of directory assistance calls.

<sup>&</sup>lt;sup>46</sup>About halfway through the CATI operation, this step was dropped, since matches were waning (due to the time lag from the date initial tracing information was obtained).

Results of CATI interviewing were monitored daily through the study Integrated Management System (IMS--see Section 2.3.6). Daily reports of production, with revised projections of future production to satisfy study requirements, were available to both NCES and contractor staff. CATI interviewing was also monitored through a formal, work-sample-based quality control procedure. Data to determine system level error rates and individual interviewer departures from system rates were collected daily; and distributed no less frequently than on a weekly basis.

### 2.3.5 Training Data Collectors

In any survey, comprehensive training of those who collect study information is critical to the quality of the end-product data. In NPSAS:96, separate training was required for three different types of data collectors:

- contractor telephone interviewers who collected data through CATI, together with their supervisors and monitors;
- contractor field data collectors (FDCs) who collected records data through CADE, together with their field supervisors (FSs); and
- institutional staff who collected records data through CADE.

Training for the first two groups involved providing information regarding locating and dealing with students/parents or institutional staff, the nature of the data to be collected, and the nature of the computer program used for data collection; the latter group required only training regarding the computer program operation.

Initial **telephone staff training** for the full student and parent interviews was conducted in late April of 1996, immediately prior to the scheduled start date for CATI operations. All supervisors were trained separately prior to training any of the interviewers, so that they could assist during the interviewer and monitor training, conducted in early May. Additional training sessions for interviewers were conducted, as needed, through November 1996<sup>48</sup>. In total, 14 separate training sessions were held; four for day-shift interviewers and the remainder for night and weekend staff. In the initial training, 13 supervisors and 21 monitors were trained. Additionally, a total of 306 perspective telephone interviewers began training during NPSAS:96; of these, 269 successfully completed the training program and began interviewing.

<sup>&</sup>lt;sup>48</sup>Such additional training was required for unplanned replacement interviewers (to replace those who were dismissed or left the project), for planned supplemental interviewers (as students from additional schools were added to the CATI data base, operational efficiency required increasing the complement of interviewers), and for previously-trained interviewers found to need retraining.



Full interview training included 20 hours of instruction followed by 2 hours of observing supervisors conducting actual interviews. Instruction included an introduction to the nature and purpose of NPSAS:96, general interviewing techniques, general use of the CATI program, procedures for contacting sample members, review of all questions in both the student and parent interviews, practice with screens and subroutines requiring on-line coding or matrix entries, and practice with separate sections and the full interviews -- including participation in "mock" interviews and observations of both "mock" and actual interviews. As a training aid, each interviewer was issued an *Interviewer Manual*<sup>49</sup>. The Table of Contents of that manual as well as a copy of the training agenda for the full interview is provided in Appendix E.

Additional training was provided for administration of the reliability reinterviews, the abbreviated interviews, and the minimal interview. Reliability reinterview staff were chosen from among those who had shown high proficiency with the full interview, and the half-day training was restricted to familiarization with revised branching patterns and "fills" in the reinterview. Training for administration of the various abbreviated interviews was restricted to bilingual (Spanish/English) interviewers and "refusal converters," as appropriate. Since these specialty interviewers included only well-seasoned staff who had been trained for the full interview, the training was again restricted to familiarization with special procedures to access the specialty interviews and with the CATI screens for the abbreviated instruments themselves.

The initial **training for contractor CADE** staff was conducted during March, 1996; all 11 field supervisors (FSs) and 65 of the 79 field data collectors (FDCs) used in the study were trained at that time. As a result of some loss of FDCs and an unexpected propensity of institutions that requested a change from their initial choice of "self-CADE" to the use of contractor FDCs, supplemental training of 14 additional FDCs was conducted during June, 1996. To reduce training travel costs for field staff, the initial training was conducted at two sites: in Research Triangle Park, NC for the East Coast, and in San Francisco for the West Coast. Since the supplemental training group was relatively small, only a single training session was held, at the East Coast site.

The initial training sessions included a full day of training for the FSs prior to the FDC training; FDCs were subsequently trained, with assistance from the FSs, over three additional days (with after-class homework). Training consisted of an overview of NPSAS:96 objectives and time frame (including a brief explanation of how the financial aid process works on campuses), review of the architecture and nature of the CADE software, review of and practice with each section of the CADE instrument, procedures for dealing with the IC and other staff at the institutions, instruction in, and practice with, locating records (including, but not restricted to, use of the "location of records" lists provided by the ICs), and procedures for contacting FSs and electronic transmission of completed cases.

During this training, considerable use was made of location and abstraction of records using mock student folders developed to represent diversity in record keeping at different types

<sup>&</sup>lt;sup>49</sup>Research Triangle Institute, *Telephone Interviewer Manual and Supervisor Supplement: NPSAS:96 Main Study.* Author, Research Triangle Park, NC: April 1996.



of postsecondary institutions. Each trainee was also provided with: a laptop computer to be used during their training and subsequent field work, a *Field Data Collector Manual*, and a *CADE Users' Manual*. The Table of Contents for both these manuals as well as the training agenda are provided in Appendix E.

Training of Institutional Staff in use of CADE relied heavily on self-training, since the major objective of that training was familiarity with the CADE program. The program was self-installing (including an initial check of the host PC for sufficient memory), and a self-teaching tutorial was imbedded. Help screens were imbedded within the program and a "hot line" number was established through which users could obtain answers to specific or general questions from central contractor staff who developed the software. Additionally, institutional staff were provided with a *CADE Users' Manual*.

### 2.3.6 Evaluation and Quality Control Design

Evaluation of NPSAS:96 procedures have obvious implications for enhancements of subsequent waves of NPSAS and for possible methodological experiments within future NPSAS field tests. Each major component of the study was evaluated. Methodology consisted of both formative and summative evaluations. Formative evaluations were of an ongoing nature, designed to assess tasks at intermediate stages so that the effects of employing alternate methodologies could be analyzed and modifications and revisions could be employed and assessed prior to task completion. Such ongoing evaluations (many of which were imbedded within the study IMS) were a major part of NPSAS quality control. Summative evaluations assessed the results of the field test, including procedural changes instituted during the course of the study. A summary of NPSAS:96 field test evaluations that were planned and implemented is provided in Table 2.9.

A critical part of operational evaluation and quality control was regular quality circle meetings with field interviewers, telephone interviewers, interview monitors, and interviewer supervisors. These meetings provided an easily available forum for production staff and project management to address the important topic of work quality, discuss issues of concern, identify problems with the survey instruments, share ideas for improving the instruments, and suggest various approaches for improving operations and/or results. To implement suggested improvements arising from some such meetings, the operational features of the CATI instrument was refined a number of times over the course of the data collection period. On completion of data collection, final quality circle meetings were held, serving as debriefing sessions for the full operational period.

Table 2.9—Summary of NPSAS:96 evaluation approaches

Major area of evaluation	Evaluation approaches
System operation	Monitor (and correct) all anomalous systems operations.
Training	Debrief institutional coordinators.
	Debrief field interviewers/data abstractors.
	Debrief CATI staff.
Sampling	Analyze efficacy of CATI two phase subsampling approach.
	Monitor and adjust student sampling rates.
	Analyze accurateness of two-stage sampling approach assumptions.
List acquisition	Analyze overall response rate, accuracy, costs, and time to produce lists.
	Monitor accuracy of lists (completeness and multiplicities); resolve, where needed
	Analyze accurateness of assumptions regarding FTB identification under new rules.  Debrief institutional coordinators.
	Desirer mattational coordinators.
Record abstraction	Monitor all electronic data interchange (EDI) approaches.
	Monitor completeness of all returned CADE data; resolve, where needed.
	Analyze overall response rates, costs, and time to complete CADE.
	Analyze data quality (missing data) under conditions of self-CADE, field-CADE, and EDI approaches.
	Debrief institutional coordinators.
	Debrief field staff.

(Continued on next page)

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Table 2.9—Summary of NPSAS:96 evaluation approaches (continued)

Major area of evaluation	Evaluation approaches
Tracing activities	Monitor (silent) CATI tracing staff performance. Correct or retrain as needed.
	Debrief and conduct Quality Circle Meetings with tracing staff and supervisors
	Analyze all levels of tracing results and costs.
	Analyze costs and efficacy of CATI-external tracing activities.
Interview administration/data quality	Monitor (silent) CATI interviewer performance; correct or retrain as needed.
	Analyze silent monitoring quality control data.
	Analyze CATI operational parameters (e.g., numbers of calls per case, total interviewer hours per completed interview).
	Analyze effectiveness of refusal conversion approaches.
	Analyze efficacy of special case abbreviated interviews.
	Analyze effectiveness of mailings and leaving messages on answering machines.
	Debrief and conduct quality circle meetings with interviewers, monitors, and supervisors.
	Analyze rates and patterns of interview nonresponse.
	Analyze validity of student responses.
	Analyze response temporal stability (reliability) through reinterviews of selected items.
	Analyze times to complete interview sections.

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As indicated in Table 2.9, the study design included a number of components for direct evaluation of data quality. Among these, a reliability reinterview was conducted with students about four weeks after the initial interview; this involved a random subsample of 250 respondents to the initial interview. The reliability reinterview contained only a small subset of the initial interview items. Also, validity of information collected from CATI was evaluated by comparison of certain CATI responses to information items available from institutional records.<sup>50</sup>

Both evaluation and quality control were greatly facilitated by the use of an Integrated Management System (IMS). All operational and management activities, (including sampling, locating, collecting institutional records data, interviewing, and data processing) were under this system, which consisted of a series of PC-based, fully linked modules. The various modules of the IMS provided the means to conduct, control, and monitor the complex, interrelated activities required in the NPSAS:96 study. Report production, data analyses, and document archiving were also integrated into this system.

The IMS structure allowed for streamlining related tasks and served as a centralized, easily accessible repository for project data and documents. The IMS provided authorized project staff (and NCES staff as remote users) menu-driven access to all IMS modules quickly and easily. Its use also enabled the application of extensive quality control measures throughout the various project activities. **Table 2.10** provides a listing of major IMS processes and their purposes.

Figure 2.5 presents a schematic of various components and features of the IMS. The central system resided on a DEC PATHWORKS PC network, accessible to remote users through a dedicated network modem. Case-level status as well as routine summary reports were available across all components of the system. Summary reports and other project information were also accessible through the password-protected, restricted-use World-Wide Web page for the NPSAS:96 IMS. Information was integrated through the implementation of a case-level control system which monitored status in the various stages of production. Status from separate stages was incorporated in the master IMS to allow control of the flow of events in the system and monitoring of performance of study requirements.

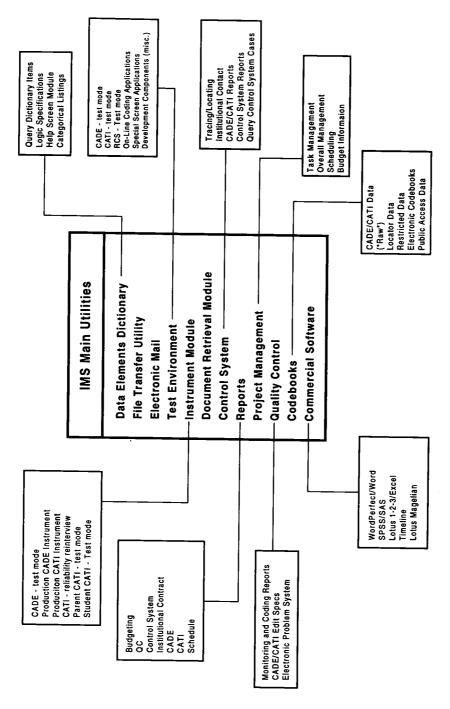
<sup>52</sup> 

<sup>&</sup>lt;sup>50</sup>Generally, students were not asked about items of information collected from institutions; however, some items were included in CATI to assess validity by having the student either (a) "verify" the institutional data, or (b) provide an independent response.

Table 2.10—Integrated management system processes and purposes

IMS process/system	Purpose
Instrument module	Run the current version of the CADE and CATI instruments
Data elements dictionary	Produce and query CATI/CADE instrument code, specifications, screen wording, and associated documentation
Electronic mail	Routine communications among project personnel
File transfer	Transmit CADE data and programs to/from field data collectors; transmit CPS and NSLDS requests; transmit data to subcontractors and client
Receipt control system (RCS)	Institution-level and student/parent-level tracking of all data collection activities; canned and customized status reporting and query capabilities
Web interface	Internet access for project staff and client to CATI and CADE daily production reports, frequencies, timing information, etc.
Management reporting	Budget/staffing reports; project schedule
Electronic problem tracking	Document problems experienced in administration of the CATI instrument
Quality control	Run the QC monitoring software; produce QC monitoring reports
Data library	Maintain and provide access to all products for the project





NOTE: Model is representative of IMS Modules but is not inclusive.

R.

### Chapter 3

### Overall Institution, Student, and Parent Data Acquisition Rates and Related Outcomes

Attaining the participation rates required for NPSAS:96, by NCES Statistical Standards, demands high levels of cooperation at all stages of the survey process. This chapter provides the overall participation outcomes; further examination of factors related to these outcomes, together with results of other evaluations, are provided in subsequent chapters of this report.

### 3.1 Institutional Participation

A total of 73 (7.5 percent) of the 973 institutions initially selected for the full scale study were found to be ineligible for NPSAS:96. Forty-six of these institutions failed to meet one or more of the NPSAS institutional eligibility criteria specified previously in Chapter 2; another 23 institutions had closed between the time sampling frame information was collected and institutions were first contacted about participation in the study; and four institutions were "duplicated" with other selected institutions. The latter group reflected either improper classifications on the sampling frame or a subsequent merger with another sampled institution. Eligibility rates are shown in **Table 3.1**, by institutional level of offering, control, and sector.

Institutional eligibility varies considerably with level of offering and control; it is markedly lower for less than 2-year institutions and for the private for-profit institutions. These differences were expected, and are directionally consistent with results from prior NPSAS studies.

The 900 eligible sample institutions were asked to participate in NPSAS:96 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. Participation at the list provision level is also shown in Table 3.1. From the table, it can be seen that nearly all (896 or 99.6 percent) of the 900 eligible institutions initially agreed to participate in the study.

<sup>&</sup>lt;sup>1</sup>In this and subsequent tables, institutional classification errors on the sampling frame have been corrected; consequently, counts within corrected classification will differ somewhat from those in Chapter 2 based on uncorrected sampling strata.



Table 3.1—Overall institutional eligibility and enrollment list participation rates

itution         a sampled         Number         Percent d         Number         Percent e         Number         Percent e         Number         Process         Windless         Windless         Number         Percent e         Number         Number         Percent e         P	<i>y</i>				Pa	· K nij		Eligible institutions <sup>b</sup>	titutions <sup>b</sup>	Institutions	Institutions agreeing to participate	Institu	Institutions providing lists <sup>c</sup>	g lists <sup>c</sup>
pe of institution a transmitted         Number         Percent d process         Number         Percent d process         Number         Percent d pp.6           granting         172         118         68.6         117         99.2           granting         264         251         95.1         249         99.2           granting         271         271         100.0         270         99.6           granting         321         303         94.4         302         99.8           r         197         149         75.6         147         98.7           r         197         149         75.6         147         99.8           r         197         149         75.6         147         99.7           r         197         149         75.6         147         99.4           r         197         149         75.6         147         99.4           r         167         165         98.8         164         99.4           r         167         165         98.8         164         99.4           r         167         167         167         100.0           2-year roll less <td< th=""><th>₹.'</th><th></th><th></th><th></th><th>ky.</th><th></th><th>Institutions</th><th></th><th></th><th></th><th></th><th></th><th>Perc</th><th>Percent e</th></td<>	₹.'				ky.		Institutions						Perc	Percent e
ranting		Type (	of institu	ıtion <sup>a</sup>		* 57	sampled	Number	Percent d	Number	Percent e	Number	Unweighted	Weighted
ranting 264 251 95.1 249 99.2 ranting 251 251 95.1 249 99.2 ranting 266 260 97.7 260 100.0 270 99.6 271 271 100.0 270 99.6 271 271 100.0 270 99.6 271 271 100.0 270 99.6 271 271 271 271 271 271 271 271 271 271	All institutions						973	006	92.5	968	9.66	836	92.9	91.1
ranting 264 251 95.1 249 99.2 ranting 266 260 97.7 260 100.0 99.6 271 271 100.0 270 99.6 99.5 100.0 271 100.0 270 99.6 99.7 260 100.0 271 271 100.0 270 99.6 99.7 260 100.0 271 271 100.0 271 271 100.0 271 271 271 100.0 271 271 271 100.0 2.9ear or less 27 48 98.8 164 99.4 100.0 2.9ear or less 57 45 78.9 45 100.0 4.9ear non-doctorate-granting 121 115 95.0 115 100.0 142 99.3 143 100.0 142 99.3 143 100.0 142 99.3 143 100.0 142 98.7 143 100.0 144 98.7 144 98.7 144 98.7 144 98.5 144 92.5 173 98.6 144	Institutional level		*		**				:					
ranting 264 251 95.1 249 99.2  ranting 266 260 97.7 260 100.0  271 271 100.0 270 99.6  448 98.5 447 99.8  321 303 94.4 302 99.7  197 149 75.6 147 98.7  rorate-granting 123 100.0 123 100.0  2-year or less 57 45 78.9 45 100.0  4-year doctorate-granting 121 115 95.0 115 100.0  4-year doctorate-granting 117 75 64.1 74 98.7  at or more 80 74 92.5 73 98.6	Less-than-2-yea	·,					172	118	9.89	117	99.2	100	84.7	92.1
ranting 266 260 97.7 260 100.0  ng	2-year	i kaj ka			1. 17		264	251	95.1	249	99.2	238	94.8	94.2
ng         271         271         100.0         270         99.6           455         448         98.5         447         99.8           321         303         94.4         302         99.7           197         149         75.6         147         98.7           r         187         149         75.6         147         98.7           rorate-granting         167         165         98.8         164         99.4           c-granting         123         123         100.0         123         100.0           2-year or less         57         45         78.9         45         100.0           4-year doctorate-granting         121         115         95.0         115         100.0           4-year doctorate-granting         143         143         100.0         142         99.3           4-than-2-year         117         75         64.1         74         98.6           ar or more         80         74         92.5         73         98.6	4-year non-doct	orate-gran	ting	200	۲.		266	260	7.76	260	100.0	242	93.1	87.1
r 321 303 94.4 302 99.7 30.1 30.1 30.1 30.2 30.1 30.2 30.1 30.2 30.1 30.2 30.1 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2	4-year doctorate	>-granting				2.	271	271	100.0	270	9.66	256	94.5	83.6
rofit       455       448       98.5       447       99.8         t       321       303       94.4       302       99.7         t       197       149       75.6       147       99.8         2-year       38       33       86.8       33       100.0         1-year       167       165       98.8       164       99.4         1-doctorate-granting       123       100.0       123       100.0         corate-granting       127       127       100.0       127       100.0         rofit, 2-year or less       57       45       78.9       45       100.0         rofit, 4-year mor-doctorate-granting       121       115       95.0       115       100.0         r, less-thain-2-year       117       75       64.1       74       98.7         t, 2-year or more       80       74       92.5       73       98.6	Institutional contr	ol 🦟				33							i.	
rofit     321     303     94.4     302     99.7       t     197     149     75.6     147     98.7       2-year     38     33     86.8     33     100.0       n-doctorate-granting     123     123     100.0     123     100.0       ctorate-granting     127     127     100.0     127     100.0       rofit, 4-year non-doctorate-granting     121     115     95.0     115     100.0       rofit, 4-year doctorate-granting     143     100.0     142     99.3       t, Jess-than-2-year     117     75     64.1     74     98.7       t, 2-year or more     80     74     92.5     73     98.6	Public			N.	ć.	\	455	448	98.5	447	8.66	434	6.96	97.6
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2-year       38       33       86.8       33       100.0         n-doctorate-granting       167       165       98.8       164       99.4         n-doctorate-granting       123       123       100.0       123       100.0         ctorate-granting       127       127       100.0       127       100.0         rofit, 2-year or less       57       45       78.9       45       100.0         rofit, 4-year non-doctorate-granting       121       115       95.0       115       100.0         rofit, 4-year doctorate-granting       143       143       100.0       142       99.3         t, less-than-2-year       117       75       64.1       74       98.7         t, 2-year or more       80       74       92.5       73       98.6	Private, for-pro	it :				7.1	197	149	75.6	147	7.86	128	85.9	87.8
ng     38     33     86.8     33     100.0       ng     123     123     100.0     123     100.0       127     127     100.0     127     100.0       s     57     45     78.9     45     100.0       rate-granting     121     115     95.0     115     100.0       rate-granting     143     143     100.0     142     99.3       80     74     92.5     73     98.6	Institutional secto		*	,		80 × 1								
ng         167         165         98.8         164         99.4           ng         123         123         100.0         123         100.0           s         57         45         78.9         45         100.0           cotcorate-granting         121         115         95.0         115         100.0           rate-granting         143         143         100.0         142         99.3           intra-granting         75         64.1         74         98.7           80         74         92.5         73         98.6	Public, less-than	1-2-year	* *		14		38	33	8.98	33	100.0	31	93.9	9.66
ng     123     123     100.0     123     100.0       s     57     45     78.9     45     100.0       octorate-granting     121     115     95.0     115     100.0       rate-granting     143     143     100.0     142     99.3       80     74     92.5     73     98.6	Public, 2-year						167	165	8.86	164	99.4	159	96.4	97.2
s 57 45 78.9 45 100.0 coctorate-granting 127 143 100.0 127 100.0 127 100.0 121 115 95.0 115 100.0 142 99.3 117 75 64.1 74 98.7 80 74 92.5 73 98.6	Public, 4-year n	on-doctora	ate-granti	Bu			123	123	100.0	123	100.0	119	2.96	0.96
s	Public, 4-year d	octorate-g	ranting		18		127	127	100.0	127	100.0	125	98.4	0.86
octorate-granting         121         115         95.0         115         100.0           rate-granting         143         143         100.0         142         99.3           117         75         64.1         74         98.7           80         74         92.5         73         98.6	Private, not-for-	profit, 2-y	ear or les	\$2			57	45	78.9	45	100.0	42	93.3	99.3
rate-granting 143 143 100.0 142 99.3 117 75 64.1 74 98.7 80 74 92.5 73 98.6	Private, not-for-	profit, 4-y	ear non-c	loctorate-g	ranting	, in the	121	115	95.0	115	100.0	102	88.7	83.5
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80 74 92.5 73 98.6	Private, for-prof	ft, less-tha	ın-2-year				117	75	64.1	74	7.86	61	81.3	8.68
	Private, for-prol	ît, 2-year (	or more				80	74	92.5	73	98.6	29	90.5	80.5

a. Institutional classifications used here were verified by the institutions to correct classification errors on the sampling frame.

Among the 73 institutions considered ineligible: 23 had closed since the sampling frame time frame; 4 were duplicates with other selected institutions (some through merger since the time frame of the sampling frame; and the remaining 46 failed to meet one or more of the criteria for institutional NPSAS eligibility.

<sup>c</sup>Unreadable electronic files were obtained from eight additional institutions.

dercent is based on the total number of institutions sampled within the row under consideration.

Percents are based on only the eligible institutions within the row under consideration.



However, this table also shows that not all of the institutions agreeing to participate actually provided a useable enrollment list; in fact, 60 did not.

Thus, 836 (92.9 percent) of the 900 eligible sample institutions actually provided a student enrollment list or data base that could be used for sample selection (another eight institutions provided electronic files that could not be processed). List provision (among eligible institutions) varied by type of institution considered; the percentage providing student sampling lists ranged from 81.3 percent of the private, for-profit, less-than-2-year institutions to 98.4 percent for public institutions with a doctoral or first-professional degree as the highest level of offering. As has been the case in prior NPSAS implementations, participation was highest among the public institutions and lowest among the private, for-profit institutions.

Weighted response rates were calculated based on the institutional probabilities of selection and are also shown in Table 3.1.<sup>2</sup> The overall weighted response rate of 91 percent and the weighted rates for all institution categorizations in Table 3.1 are similar to the unweighted rates. However, NPSAS:96 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, and the unweighted estimates may be more stable.

### 3.2 Obtaining Student Records

As indicated previously, obtaining information from student records was a sequential three-stage process. The first stage, implemented for the first time in NPSAS:96, involved an electronic data interchange (EDI) with the ED CPS database of electronic SARs). The second stage involved collection of information from student records at the postsecondary institutions in the NPSAS sample using a CADE software system<sup>3</sup>; and the third stage involved EDIs with the ED Student Pell Summary records and ED's NSLDS database. Outcomes for these three activities are considered in separate subsections below.

<sup>&</sup>lt;sup>3</sup>The CADE operation was implemented by either staff at the NPSAS institution or contractor field data collectors (FDCs).



<sup>&</sup>lt;sup>2</sup>The weighted response rates can be interpreted as the estimated percentages of institutions in the population that would have provided a useable student sampling list, if asked.

### 3.2.1 CPS SAR Data

Table 3.2 summarizes results of matching and downloading data for SAR 96 and SAR 97, in total and by selected student classifications. Obtaining a match was determined by whether or not: (1) the student was listed on the CPS files (i.e., had applied for Federal financial aid during the 1995-96 academic year and entered on the file by the time the request was made) and (2) a valid CPS ID and name<sup>4</sup> could be determined. While application for federal aid is one of the factors (and probably the principal one) affecting the match rate, differences shown in Table 3.2 should not be over-interpreted, since the percentages shown are unweighted.

From Table 3.2, it should be noted that the SAR 96 matching attempt involved only 61,932 of the total; specifically, those for whom a CPS ID had been determined from information on the institution's enrollment list<sup>5</sup>. (A total of 23 institutions failed to provide sufficient information to construct a CPS ID; other institutions provided no information or inaccurate information for differing numbers of students. No matches were obtained for 16 additional institutions.) Matches were obtained, and some SAR data obtained, for 30,821 of those submitted (about 50 percent).<sup>6</sup>

SAR 96 matching rates were lowest among students at public institutions offering less than 4-year programs and among graduate students; they were greatest among students attending private for-profit institutions and first-professional students. These results are not particularly surprising. Federal aid applications at public community colleges and technical institutions are expected to be proportionately less than other sectors, and federal aid applications at private for-profit institutions proportionately greater. Moreover, first-professional students tend to rely more on federal aid (primarily loans) whereas graduate students generally rely more on institutional aid (teaching and research assistantships).

<sup>&</sup>lt;sup>6</sup>For purposes of comparability, all percentages shown in Table 3.2 are based on the full set of 63,080 students with apparently valid CPS IDs; consequently the SAR-96 rates are depressed from the values obtained using only the subset of 61,932 actually submitted. Original plans called for resubmitting these students for SAR 96 data following CATI; however, at that time CPS processing of the 1995-96 year had been discontinued.



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<sup>&</sup>lt;sup>4</sup>For example, students who had changed their name (e.g., a female student who married) between application and the time that student lists were prepared, could create a non-match.

<sup>&</sup>lt;sup>5</sup>Recall that both CADE and CATI data collections were conducted only after the initial SAR 96 matching attempt; consequently the CPS IDs for the additional 1,148 students (obtained from either CADE or CATI data) were not available for the SAR 96 request.

# Table 3.2—Matching rates for CPS SAR data of 1995-96 (SAR 95-96) and of 1996-97 (SAR 96-97), by selected domains

		Matched to SAR 96	SAR 96	Matched to SAR 97	0 SAR 97	Matched on both	on both	Matched on either	on either
Type of student	Eligible	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All students	63,080	30,821	48.9	22,924	36.3	19,884	31.5	33,858	53.7
Institutional level						,	ļ	6	-
Less than 2-year	5,251	2,856	55.4	1,104	21.4	912	17.7	3,048	59.1
2-vear	12,947	5,823	45.0	4,101	31.7	3,348	25.9	9/2'9	20.8
4-vear non-doctorate-granting	19,360	9,819	50.7	7,850	40.5	6,923	35.8	10,746	55.5
4-vear doctorate-granting	25,614	12,323	48.1	698'6	38.5	8,701	34.0	13,491	52.7
Institutional control		0,031	,	13.060	33.8	10 105	28.5	17 136	48.0
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	35,737	10,805	42.7	9,630	71.7	7715	37.3	11.811	57.1
Private, not-for-profit	20,073	10,650	7.70	9666	33.4	1 974	20.6	4 9 1 4	73.7
Private, tor-profit	0,0,0	4,002	07.7	077,7	1000				
Institutional sector	1 510	446	707	200	13.6	148	67	505	33.2
Public, less than 2-year	8 512	2.750	30.3	2 172	25.5	1.668	19.6	3.254	38.2
Public, 2-year  Darlie A grant and doctorate granting	10.683	5.138	48.1	4.156	38.9	3,580	33.5	5,714	53.5
Fublic, 4-year doctorate granting	15,023	6.929	46.1	5,533	36.8	4,799	31.9	7,663	51.0
Drivate not-for-nrofit 2-vear or less	2.538	1,481	58.4	1,040	41.0	867	34.2	1,654	65.2
Private not-for-profit 4-year non-doctorate-granting	7,594	4,045	53.3	3,275	43.1	2,965	39.0	4,355	57.3
Private not-for-profit 4-year doctorate-granting	10,541	5,370	50.9	4,315	40.9	3,883	36.8	5,802	55.0
£.	3,166	2,221	70.2	803	25.4	689	21.8	2,335	73.8
	3,504	2,441	69.7	1,423	40.6	1,285	36.7	2,579	73.6
					6	, 1	,	00700	103
	20,590	27,027	53.4	20,189	39.9	17,536	34.7	080,67	38.7
Graduate	9,771	1,955	20.0	1,337	13.7	1,049	10.7	2,243	23.0
in the second of	2.719	1,839	9.79	1,398	51.4	1,299	47.8	1,938	71.3
A 11 St December 2									

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

(C)



<sup>&</sup>lt;sup>a</sup>Both institutional and student classifications used here have been verified to correct classification errors on the sampling frames.

bonly sampled students for whom an apparently legitimate social security number was available were submitted to CPS for matching. Of the 63,080 with valid CPS Ids, 3,643 were determined to be ineligible for NPSAS:96.

<sup>&</sup>lt;sup>c</sup>These matching rates are somewhat depressed, since the 63,080 students include 1,148 students for whom CPS IDs were not determined until after CPS processing for the 1995-96 year had been discontinued; such students did not have the opportunity to match to SAR 96.

dstudent level is based on the student's last term of enrollment at the NPSAS institution during the NPSAS year.

Following the completion of interviewing, the full set of 63,080 students was submitted for attempted matching to obtain SAR 97 data<sup>7</sup>. Matches were obtained for 22,924 (about 32 percent of the total). It is expected that the lower matching rate for SAR 97 represents changes in student status between the two academic years; e.g., leaving institution (through program completion or other reason) or changing status within institution (from undergraduate to graduate student). This hypothesis is supported by the fact that the match rate differential, while directionally consistent among all student classifications, is generally greatest among students at 2-year and less than 2-year institutions.

Overall, SAR data from either 95-96 or 96-97 were obtained for 54 percent of the students submitted, and SAR data for both years were collected for about 31 percent of them. The high rate of matches for either year signals a high reliability of analytic data constructed from SAR data (e.g., expected family contribution, family income); however, the lower rate of matches for both years suggest that data are probably insufficient to analyze trends over years.

### 3.2.2 Abstracting Students' Institutional Records

The record abstraction phase of the study was restricted to those students enrolled in the 836 sample institutions providing an enrollment list from which a student sample could be selected (i.e., 63,616 students). As indicated previously, these data were to be entered into magnetic form, on site at the institution, using a computer-assisted data entry (CADE) program. To reduce the burden associated with record data abstraction, SAR96 data, where obtained previously from CPS, were preloaded into that section of the CADE record into which such data were, otherwise, to be abstracted.

At all participating institutions, the Institution Coordinator (IC) was given two principal options as to how the student information was to be entered into CADE. One option ("self-CADE") was direct abstraction by institutional staff (guided by the CADE program<sup>8</sup>, with reimbursement on request); the second option ("field-CADE") was to provide contractor Field Data Collectors (FDCs) with access to the records and have the abstractions performed by the FDCs. Generally, self-CADE was the recommended option, since it was less expensive and ensured no contractor staff access, during abstraction, to records of students who had not been

<sup>&</sup>lt;sup>8</sup>While the CADE system was self-directing and contained a number of checks to ensure proper installation and use, training institutional staff on the proper use of the system was still needed. This was accomplished through a CADE Users' Manual and an electronic tutorial; also a hot-line number was established by the contractor to address specific questions as they arose.



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<sup>&</sup>lt;sup>7</sup>In an attempt to retrieve updated addresses and/or telephone numbers, 1,529 of these cases were actually submitted during CATI data collection.

sampled<sup>9</sup>. A total of 28 institutions did not use either of these CADE options; for various reasons<sup>10</sup> they chose to provide electronic or hard copy of selected records to the contractor, and contractor central staff then transferred (or keyed) relevant information from those records into the CADE format (these institutions are classified as field-CADE).

Initially, 663 (79 percent) of the 836 participating institutions opted for self-CADE; however, only 474 (57 percent) actually completed the procedure under self-CADE. Among the 836 institutions, 199 ICs (24 percent of the total) changed their minds about the method of abstraction during the CADE operation; 194 of these changed from self-CADE to field-CADE, and the remaining 5 changed in the opposite direction.

In addition to obtaining student financial aid data, enrollment data, and other factual postsecondary data from institution records (the most reliable and valid source available), CADE operations also were designed to obtain information necessary to contact the student. For these and other purposes, all data in the CADE record were preloaded into the CATI record, after final quality assurance checks and determination of student eligibility. During the CADE operation, 2,430 students were determined to be NPSAS-ineligible (in the bulk of these cases, some student record data had already been abstracted prior to that determination); an additional 1,326 sample members were determined to be NPSAS-ineligible during the subsequent interviewing stage (complete or partial CADE data had also been obtained for over half of these cases). Irrespective of the availability of CADE data, however, none of these 3,756 students are considered in discussions of rates for obtaining record data.

Institutional response to the CADE data collection is shown in **Table 3.3**. Among the 836 institutions providing student lists, 804 (96 percent) provided complete or partial record data for at least one NPSAS-eligible student selected from that institution. It should be noted that eight of the 804 institutions providing such data did so only after the interviewing stage had been initiated for their students; consequently, even though all students from such institutions with sufficient CADE data are represented in the CADE database, only those students at the institution with sufficient SAR96 data were selected for (and are represented through) student interviewing. For purposes of presentation completeness, both weighted and unweighted institutional-level rates for obtaining record data are provided in Table 3.3.

<sup>&</sup>lt;sup>10</sup>The typical reason expressed was unwillingness to have contractor staff accessing their files or unwillingness to perform self-CADE. Other institutions in this category resulted from those that initially attempted self-CADE but who admitted that they would be unable to do it too late in the process to schedule FDCs for field-CADE.



<del>3-7</del>

<sup>&</sup>lt;sup>9</sup>An exception to this generality was institutions with large samples (particularly those with samples of graduate and first-professional samples--records for whom are frequently maintained in separate physical locations from that for undergraduates). Past experience, in both NPSAS:93 and the NPSAS:96 field test, suggested that a sizeable number of such institutions initially choosing self-CADE would subsequently discover the task too demanding and then request field-CADE for the (remaining) abstractions; to avoid the delay so introduced, field-CADE was highly recommended to such institutions from the outset.

Table 3.3 —Institution-level rates for obtaining institutional record data (CADE), by selected classifications

		Prov	ided record o	lata <sup>c</sup>
			Perce	ent <sup>d</sup>
Type of institution <sup>a</sup>	Eligible b	Number	Unweighted	Weighted
All institutions	836	804	96.2	96.3
Institutional level				
Less than 2-year	100	93	93.0	94.6
2-year	238	229	96.2	97.7
4-year non-doctorate-granting	242	237	97.9	97.8
4-year doctorate-granting	256	245	95.7	97.1
Institutional control				
Public	434	424	97.7	98.7
Private, not-for-profit	274	261	95.3	97.6
Private, for-profit	128	119	93.0	93.5
Institutional sector			75.0	93.3
Public, less than 2-year	31	31	100.0	100.0
Public, 2-year	159	155	97.5	98.2
Public, 4-year non-doctorate-granting	119	117	98.3	99.4
Public, 4-year doctorate-granting	125	121	96.8	99.4 97.6
Private, not-for-profit, 2-year or less	42	38	90.5	98.4
Private, not-for-profit, 4-year non-doctorate-granting	102	100	98.0	
Private, not-for-profit, 4-year doctorate-granting	130	123	98.0 94.6	97.1
Private, for-profit, less than 2-year	61	56	2	96.8
Private, for-profit, 2-year or more	67		91.8	93.4
	0/	63	94.0	94.0

NOTE: All percentages are based on the eligible group for the row under consideration.



<sup>&</sup>lt;sup>a</sup>Institutional classifications were verified by participating institutions to correct classification errors in the sampling frame.

<sup>&</sup>lt;sup>b</sup>The eligible group is comprised of the 836 NPSAS-eligible institutions that provided lists for student sampling.

<sup>&</sup>lt;sup>c</sup>Includes institutions providing only partial data and those providing data for only a subset of sampled students; eight of the institutions provided these data only after interviewing had been initiated for students selected from their institution.

<sup>&</sup>lt;sup>d</sup>NPSAS:96 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, and the unweighted estimates may be more reliable.

Even though the sample was not designed to optimize the precision of institution-level estimates, the weighted and unweighted rates are quite comparable<sup>11</sup>. Among the types of institutions categorized in the table, some variation is evidenced; however, the range of variation is relatively small (between 90 percent and 100 percent). As has been the case in prior NPSAS studies (with notable exceptions among the public institutions), unweighted rates for obtaining record data were lowest among the for-profit institutions and institutions offering programs of 2-years or less.

Rates for obtaining institutional record data among the 59,860 NPSAS-eligible students sampled from the 836 participating institutions are shown in **Table 3.4**. Again, both weighted and unweighted results are shown; the weighted rates representing the CADE data coverage within the defined population of NPSAS-eligible students<sup>12</sup>. Overall, full or partial CADE data were obtained for about 93 percent of the selected students. Within the categories selected for presentation in the table, variations in rates is somewhat restricted, particularly among unweighted rates (unweighted rates range from a low of 88 percent to a high of 96 percent, while the weighted coverage rates range from a low of 81 percent to a high of 97 percent). Consistent with the institutional-level results, rates are generally lowest among students from institutions that offer less than a 4-year program or that are for-profit.

### 3.2.3 Other Post Hoc Records Abstracted

The EDIs with the NSLDS database (attempted for the first time in NPSAS:96) and with the Pell Grant files were initiated towards the end of CATI operations. As with the previously described procedures with CPS, matching of students to the files required CPS IDs. At the time of both of these requests, *apparently* valid CPS IDs were available for only 62,717 sample members, the number subsequently submitted for both attempted matchings and associated data downloads<sup>13</sup>. The factors that determined a match for these attempts are consistent with those discussed in section 3.2.2.1 for the CPS operation, as are associated cautions regarding over interpretations of matching results.



<sup>&</sup>lt;sup>11</sup>A single exception involves the private, not-for-profit institutions offering less than a 4-year program; within this domain (represented here by less than 50 institutions), the weighted and unweighted rates differ by about 8 percentage points.

<sup>&</sup>lt;sup>12</sup>The specific applicable postsecondary student population is those enrolled in institutions that would provide student sampling lists, if asked.

<sup>&</sup>lt;sup>13</sup>Of these, 3,617 were ultimately determined to be ineligible for NPSAS.

Table 3.4 —Student-level rates for obtaining institutional record data (CADE), by selected classifications

		Rec	ord data obt:	ained <sup>c</sup>
	Total		Per	cent
Type of student a	eligible <sup>b</sup>	Number	Unweighted	Weighted
All students	59,860			93.0
Institutional level				<u> </u>
Less than 2-year	4,545	4,010	88.2	89.8
2-year	11,748	•		92.2
4-year non-doctorate-granting	18,709	•	93.8	94.0
4-year doctorate-granting	24,858	23,219	93.4	93.3
Institutional control				
Public	33,493	31,281	93.4	92.8
Private, not-for-profit	20,143	18,691	92.8	92.9
Private, for-profit	6,224	5,693	91.5	95.8
Institutional sector				
Public, less than 2-year	1,278	1,172	91.7	81.1 <sup>e</sup>
Public, 2-year	7,485	6,909	92.3	92.1
Public, 4-year non-doctorate-granting	10,282	9,529	92.7	92.7
Public, 4-year doctorate-granting	14,448	13,671	94.6	94.1
Private, not-for-profit, 2-year or less	2,424	2,150	88.7	87.2
Private, not-for-profit, 4-year non-doctorate-granting	7,356	7,040	95.7	95.6
Private, not-for-profit, 4-year doctorate-granting	10,363	9,501	91.7	91.1
Private, for-profit, less than 2-year	2,824	2,507	88.8	93.2
Private, for-profit, 2-year or more	3,400	3,186	93.7	97.2
Student level d				
Undergraduate	47,849	44,468	92.9	93.1
Graduate	9,371	8,653	92.3	91.9
First-professional	2,640	2,544	96.4	96.4

NOTE: All percentages are based on the eligible total for the row under consideration.

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<sup>&</sup>lt;sup>a</sup>Both institutional and student classifications have been verified against collected data to correct classification errors in the sampling frames.

<sup>&</sup>lt;sup>b</sup>The eligible group is comprised of all 63,616 sampled students minus the 3,756 students found to be NPSAS-ineligible at any stage of data collection.

Includes obtaining only partial data.

<sup>&</sup>lt;sup>d</sup>Based on the student's last term of enrollment at the NPSAS institution during the NPSAS year.

<sup>&</sup>lt;sup>e</sup>The difference between weighted and unweighted response rates is explained by one institution with 102 nonrespondents with larger-than-average weights.

Table 3.5—Results of NSLDS matching attempt, by selected institutional and student classifications

			X#_4.X .	. S. M	
		A. v. iii.	The second secon	to NSLDS	Silv o andida.
Type of student <sup>a</sup>		Loan d NPSAS	uring S <u>year</u>	Loan his	torically <sup>d</sup>
	Number eligible <sup>b</sup>	Number	Damasus	<b>N</b> 1	
All students	62,717	21,418	34.2		Percent
Institutional level	02,717	21,410	34.2	31,455	50.2
Less than 2-year	5,045	1,697	33.6	2 260	47.0
2-year	12,892	3,105	24.1	2,369 5,168	47.0
4-year non-doctorate-granting	19,283	6,983	36.2	1	40.1
4-year doctorate-granting	25,497	9,633	37.8	10,313	53.5
Institutional control	25,751	9,033	31.8	13,605	53.4
Public	35,651	9,407	26.4	15,307	42.9
Private, not-for-profit	20,547	8,548	41.6	11,769	57.3
Private, for-profit	6,519	3,463	53.1	4,379	67.2
Institutional sector				<del>- 1,377</del>	07.2
Public, less than 2-year	1,511	108	7.1	331	21.9
Public, 2-year	8,509	760	8.9	2,158	25.0
Public, 4-year non-doctorate-granting	10,637	3,333	31.3	5,166	48.6
Public, 4-year doctorate-granting	14,994	5,206	34.7	7,652	51.0
Private, not-for-profit, 2-year or less	2,538	994	39.2	1,418	55.9
Private, not-for-profit, 4-year non-doctorate-granting	7,556	3,150	41.7	4,433	58.7
Private, not-for-profit, 4-year doctorate-granting	10,453	4,404	42.1	5,918	56.6
Private, for-profit, less than 2-year	3,060	1,555	50.8	1,898	62.0
Private, for-profit, 2-year or more	3,459	1,908	55.2	2,481	71.7
Student level <sup>e</sup>	7				
Undergraduate > 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	50,266	17,964	35.7.	24,671	49.1
Graduate	9,745	1,654	17.0	4,685	48.1
First-professional	2,706	1,800	66.5	2,099	77.6

Note: All percentages are unweighted and based on the eligible count within the row under consideration.

Student level is based on the student's last term of enrollment at the NPSAS institution during the NPSAS year.



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<sup>&</sup>lt;sup>a</sup>Both institutional and student classifications used here have been verified to correct classification errors on the sampling frame.

Only sampled students, for whom an *apparently* legitimate ID number was available at that time, were submitted for NSLDS matching. Of the 62,717 submitted, 3,617 were determined to be ineligible for NPSAS:96.

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

<sup>&</sup>lt;sup>d</sup>Over all years of postsecondary education reflected in the NSLDS files.

Results of the NSLDS attempted matchings are shown in **Table 3.5**. Since NSLDS files are historical, information about receipt of such loans were 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. A total of 21,418 NPSAS sample members (34 percent of those submitted) were matched for the NPSAS year; 31,455 (50 percent) were matched over all years. NSLDS file records are maintained as "transactions;" consequently, in addition to loan receipt records, the files contain records for consolidations, cancellations, etc. Because of this and the historical nature of the files, several records were expected (and realized) for some students; in fact, for the 31,455 students matched, a total of 121,100 loan records were obtained (on average, almost four records per sample member).

For NSLDS matches for the NPSAS year and within the student classifications considered, the relative numbers of matches follow a pattern quite similar to that seen for the CPS matching (e.g., low match rates for graduate students and for those in public institutions with program offerings of two years or less, but high match rates for first-professional students and those in for-profit institutions). The reasons for the NSLDS matching pattern is also probably consistent with that advanced for the CPS matching pattern (see section 3.2.1, above).

The pattern is typically less distinct (and in some cases absent) for the historical match rates, certainly reflecting, at least in part, the fact that student status has changed over time (e.g., the higher historical rate for graduate students also reflect their aid packages when they were undergraduates).

Results of attempted matches to the Pell Grant file for the 1995-96 financial aid year are shown in **Table 3.6.** Matches were obtained for 13,650 (22 percent) of the 62,717 submitted cases. A handful of the matches involved graduate and first-professional students who are not eligible for this form of financial aid. However, the student level classification used is based on the last term of enrollment at the NPSAS institution during the NPSAS year, and the matched graduate and first-professional sample members were undergraduates at some time during the year (and as such eligible for this type of aid during the year).

Considerable variation in Pell Grant matching rates is observed over the categories of students shown in Table 3.6. Matching rates are lowest in the institutions offering programs at the graduate and first-professional level; however, this reflects the fact that the bulk of the graduate and first-professional students sampled from such institutions were not eligible for this form of aid during the year. Other than the confounding of the graduate and first-professional samples, the pattern of matches is fairly consistent with that observed for other EDI attempts; specifically relatively high match rates among sample members enrolled in forprofit institutions and relatively low match rates within public institutions with offerings of 2 years or less (probably for reasons similar to those advanced previously).



Table 3.6—Results of Pell grant file matching attempt, by selected institutional and student classifications

		Match	ed to Pell
Type of student <sup>a</sup>	Number eligible	Number	Unweighted percent
All students	62,717	13,650	21.8
Institutional level			
Less than 2-year	5,045	2,078	41.2
2-year	12,892	3,494	27.1
4-year non-doctorate-granting	19,283	4,441	23.0
4-year doctorate-granting	25,497	3,637	14.3
Institutional control			
Public	35,651	6,515	18.3
Private, not-for-profit	20,547	4,061	19.8
Private, for-profit	6,519	3,074	47.2
Institutional sector			
Public, less than 2-year	1,511	290	19.2
Public, 2-year	8,509	1,625	19.1
Public, 4-year non-doctorate-granting	10,637	2,376	22.3
Public, 4-year doctorate-granting	14,994	2,224	14.8
Private, not-for-profit, 2-year or less	2,538	888	35.0
Private, not-for-profit, 4-year non-doctorate-granting	7,556	1,760	23.3
Private, not-for-profit, 4-year doctorate-granting	10,453	1,413	13.5
Private, for-profit, less than 2-year	3,060	1,637	53.5
Private, for-profit, 2-year or more	3,459	1,437	41.5
Student level <sup>C</sup>			
Undergraduate	50,266	13,616	27.1
Graduate 4	9,745	15	0.2
First-professional	2,706	19	0.7

Note: All percentages are unweighted and based on the eligible count within the row under consideration.



<sup>&</sup>lt;sup>a</sup>Both institutional and student classifications used here have been verified to correct classification errors on sampling frame.

<sup>&</sup>lt;sup>b</sup>Only sampled students, for whom an *apparently* legitimate ID number was available at that time, were submitted for NSLDS matching. Of the 62,717 submitted, 3,617 were determined to be ineligible for NPSAS:96.

<sup>&</sup>lt;sup>c</sup>Student level is based on the student's last term of enrollment at the NPSAS institution during the NPSAS year. The small number of graduate and first-professional students receiving Pell grants during the 1995-96 academic year were undergraduates during earlier terms of enrollment that year, and were eligible for such aid at that time.

### 3.3 Student and Parent Locating and Collecting Interview/Questionnaire Data

For this presentation, student and parent interviews will be discussed separately, in that order, even though the two types of interviewing proceeded simultaneously, as a single operation using the same interviewer pool. Both interview programs were stored in a single CATI record, so that if a sampled parent was contacted before interviewing the student (which occurred frequently while trying to locate the student), that parent could be interviewed while he/she was already on the phone.<sup>14</sup>

The two-stage telephone interviewing of the previously selected sample of students (and parents of a subsample of those students) was sometimes as straightforward as placing a single telephone call; however, the operation frequently involved a number of sequential operations. The activities can be categorized into two major steps: locating (identifying an initial telephone number at which the sample member can be reached)<sup>15</sup> and interviewing (convincing the sample member to cooperate and conducting the interview at a convenient time).<sup>16</sup> For NPSAS:96, an automatic call scheduler was used to facilitate operations; while this scheduler served to optimize locating with as few calls as possible, it generated additional calendar time sequential dependencies.<sup>17</sup>

### 3.3.1 Students

Figure 3.1 presents a schematic of the student interviewing process. As indicated previously, not all students were selected for interviewing. Specifically excluded from the interview sampling process were students for whom no institutional record data had been obtained and those found to be NPSAS-ineligible during record abstracting. The former group

<sup>&</sup>lt;sup>17</sup>Among other features, optimal calling plans involve (a) calling individuals who have yet to be reached during different time segments (early morning, mid-morning, mid-day, afternoon, early evening, late evening, Saturday, and Sunday) than those at which they were not reached in previous attempts and (b) calling individuals who have been reached (but for whom no call-back appointment exists) during similar time segment when they were reached previously. Within such systems, the potential for calendar delay between calls is obvious.

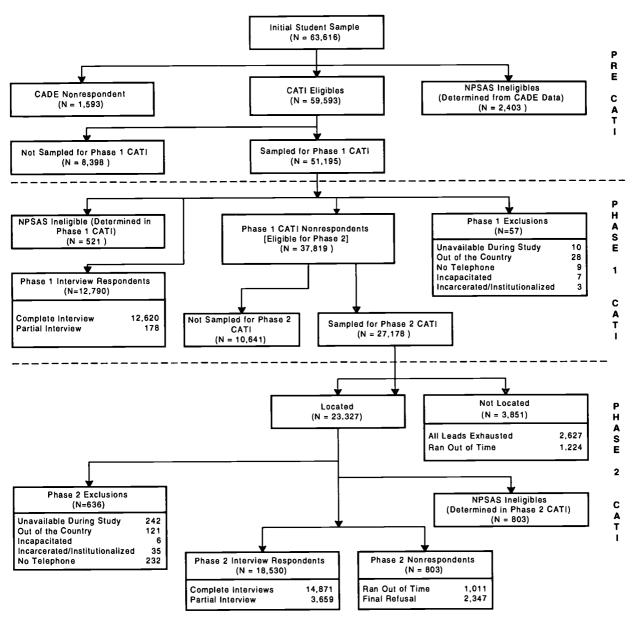


<sup>&</sup>lt;sup>14</sup>While this procedure does represent real-time savings over a strictly sequential ordering of the two types of interviews, some inefficiencies were realized (i.e., some parents were interviewed before it had been determined that the student was NPSAS-ineligible).

<sup>&</sup>lt;sup>15</sup>Sequential activities associated with locating can involve: sequencing through the preloaded telephone numbers until the operable one is found; calling new numbers uncovered during calls to preloaded numbers; contacting directory assistance for a name at an available address (when no phone number is available or when a number has been disconnected); calling college locator services and/or Alumni Offices; as well as more intensive tracing activities (e.g., referred to external sources).

<sup>&</sup>lt;sup>16</sup>Sequential activities associated with interviewing can involve: reaching sample members when they are available; convincing the sample member initially to participate; scheduling (and rescheduling if an appointment is missed) a convenient time to conduct (or finish) the interview; referring respondents with English language weaknesses to specialized interviewers; converting initial refusals (usually involving at least two additional contacts); plus relocating sample members that move before completing the interview (e.g., between institution years).

Figure 3.1—Student sample case flow through CATI selection, locating, interviewing, and related case resolution



<sup>\*</sup>All Phase 1 Partial Interviews were abbreviated, Spanish-language interviews.

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<sup>&</sup>quot;Phase 2 partial interviews consisted of a mix of minimal or abbreviated interviews and partially completed main interview.

as excluded because, in the absence of record abstract data: (1) the interview data would have considerably reduced utility, and (2) no locating data would be available from which to even start the tracing process. Exceptions were made to this rule, *if* sufficient SAR data had been collected (through the CPS) related to *both* financial aid and locating<sup>18</sup>.

Among the 59,593 NPSAS-eligible (as known at that time) students with sufficient CADE (or CPS) data, only 51,195 were sampled into the Phase-1 locating and interviewing stage (see Table 2.2.9 of Chapter 2 for strata and rates used in this sampling). Among those selected, 12,798 were both located and interviewed during Phase 1. The bulk of these cases (12,620) completed full interviews, but 178 completed only the Spanish-language abbreviated interview. An additional 580 students were finalized during Phase 1; of these 523 were found to be NPSAS-ineligibles (including deceased students) and 57 were determined to be exclusions (e.g., those determined to be incapacitated, incarcerated, institutionalized, out of the country for the duration of the data collection period). The designation "exclusions" indicates that the status of the case was resolved without an interview; such cases are considered "out-of-scope" for locating and interviewing by telephone.

The remaining 37,819 students selected for interviewing were either not located or located but not interviewed during the established Phase-1 level of effort. From this group of Phase-1 "nonrespondents," 27,178 students were selected for the more intensive (and more costly) Phase-2 locating and interviewing effort<sup>19</sup> (see Table 2.2.10 of Chapter 2 for strata and rates used in this sampling). The bulk of those selected (23,327) were ultimately located or otherwise resolved. Other "resolutions" included 803 additional NPSAS-ineligibles (again including deceased sample members) and 636 exclusions. As in Phase 1, exclusion cases consisted of those whose status (generally obtained through some contacted third party) was determined to be such that attempts at interviewing them during the CATI operational period would be futile.

Not located cases are classified into two groups: (1) "ran out of time," those for whom tracing either external to CATI or within the CATI-imbedded locator module was still ongoing (but still not fruitful) when data collection activities were ceased and (2) "all leads exhausted" cases, those for whom all tracing attempts both CATI internal and external had been exhausted with no success in locating. The first of these categories (which includes cases for whom additional locating leads had been obtained through CATI-external locating services) obviously represents an effect of the constricted time frame for those students sampled late in the process.

Among the 21,888 located Phase-2 sample members who were not resolved as NPSAS-ineligible or study exclusions, 18,530 were interviewed. Of these, 14,871 completed the main interview; the remaining 3,659 completed either parts of the main interview, an abbreviated interview, a minimal interview, or some combination thereof (see Section 4.2 for greater detail

<sup>&</sup>lt;sup>19</sup>Additional efforts in Phase 2 included: referring cases to subcontractors for more intensive tracing, use of specially-trained interviewers for refusal conversion, mailing abbreviated interviews (in hard copy form) to the hearing-impaired and those identified as not having telephones, leaving call-back messages on answering machines, and administering a minimal (5-minute) interview to those who would participate under no other circumstances.



<sup>&</sup>lt;sup>18</sup>As indicated earlier, no students from 8 institutions (which were particularly late in returning records data) would have been included in the interview sample if this exception had not been in effect.

regarding partial completions). The 3,358 located sample members who were neither interviewed nor otherwise satisfactorily resolved are also classified into two major groups: final refusals and "ran out of time".

The latter group contains some cases that were sampled late in the process and simply could not be completed (due to scheduling conflicts for a time to conduct the interview or lack of calendar time to implement full refusal conversion procedures) during the fixed data collection period. It also contains a set of students sampled earlier, who were contacted during the 1995-96 institution year, but who moved after the last term (and were subsequently untraceable) prior to completing enough of the interview to be deemed a respondent. Also, the group likely contains an unknown number of implicit refusal cases (those who, after first contact, use answering machines or friends/relatives as gatekeepers, and those who continue to make -- and then break -- appointments for an interview "in the future").

Weighted and unweighted response rates for Phase-1 and Phase-2 interviewing as well as a weighted overall effective response rate (coverage rate)<sup>20</sup> are shown in **Table 3.7**, overall and by selected domains. Those who were determined to be either NPSAS-ineligible or exclusions in either interviewing phase are not included in the computations. In all cases, the phase-specific weights used for rates reflect differential sampling into the applicable phase and have been corrected to account for the fact that NPSAS-ineligibles and exclusions exist within the groups of students that were not located or interviewed. The overall rate accounts for the fact that those selected into phase 2 carry greater weight (since they represent those Phase-1 nonrespondents not sampled for Phase 2); for any domain, this rate is derived as the ratio of the weight sum for all respondents in the domain of interest (using Phase-1 weights for Phase-1 respondents and adjusted Phase-2 weights for Phase-2 respondents) to the weight sum of all cases in the domain of interest who were selected for Phase 1.

<sup>&</sup>lt;sup>20</sup>The effective response rate over both phases represents the interview coverage of NPSAS-eligible and non-excludable postsecondary students from NPSAS-eligible institutions that would have allowed sampling, if asked. An unweighted coverage rate would be relatively meaningless under the differential selection weights for Phase-2.



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## able 3.7—Student interview response rates, by selected classifications

		Pha	Phase 1 <sup>b</sup>			Ph	Phase 2 <sup>c</sup>			Woightod
			Resnonce rates	rates				200	17.4.1	nangaren
Type of Student	Eligible	Interviewed	Unweighted	Weighted	Eligible	Interviewed	Unweighted Wei	Weighted	interviewed	ellective response rate d
All students	49,176	12,798	26.0	25.5	25.739	18.530	72.0	68.5	31 328	76.4
Institutional level							i		076,16	10.
Less-than-2-year	3,838	1,019	26.6	26.8	2,391	1,402	58.6	58.6	2.421	70.1
2-year	10,249	2,785	27.2	27.2	5,672	3,674	64.8	64.4	6,459	74.0
4-year non-doctorate-granting	15,370	4,302	28.0	26.4	7,746	5,847	75.5	71.3	10.149	78.8
4-year doctorate-granting	19,719	4,692	23.8	22.8	9,930	7,607	76.6	71.4	12.299	77.8
Institutional control Public	27.196	7.225	26.6	26.0	13 968	10001	73.7	602	7 446	
Private, not-for-profit	16,406	4,139	25.2	23.7	8.374	6.215	74.2	70.7	10,440	4.07
Private, for-profit	5,574	1,434	25.7	25.6	3,397	2,094	61.6	62.8	3,528	72.7
Institutional sector										i
Public, less-than-2-year	1,002	285	28.4	27.1	525	325	61.9	64.2	610	75.1
Public, 2-year	6,295	1,753	27.8	27.3	3,391	2,201	64.9	64.6	3.954	74.1
Public, 4-year non-doctorate-granting	8,452	2,382	28.2	26.4	4,282	3,225	75.3	70.5	5,607	78.1
Public, 4-year doctorate-granting	11,447	2,805	24.5	23.7	5,770	4,470	77.5	72.2	7.275	78.6
Private, not-for-profit, 2-year or less	2,142	536	25.0	25.0	1,238	662	64.5	61.7	1 335	71.0
Private, not-for-profit, 4-year non-doctorate-										2:
granting	6,023	1,725	28.6	26.7	2,990	2,293	76.7	72.7	4.018	80.1
Private, not-for-profit, 4-year doctorate-										
granting	8,241	1,878	22.8	20.7	4,146	3,123	75.5	0.69	5.001	75.6
Private, for-profit, less-than-2-year	2,524	683	27.1	27.7	1,650	958	58.1	57.1	1 641	- 1 69
Private, for-profit, 2-year or more	3,050	751	24.6	24.5	1,747	1,136	65.0	66.1	1.887	74.9
Student interview stratum										
Potential FTB	19,236	5,860	30.5	32.0	13,376	9,076	67.8	67.1	14.936	77.6
Other undergraduate, federal aid applicant	13,545	3,200	23.6	24.1	5,783	4,605	9.62	74.6	7.805	80.7
Other undergraduate, federal aid non-										
applicant	9,175	1,928	21.0	23.0	3,692	2,624	71.1	63.9	4.552	72.0
Graduate student, federal aid applicant	2,040	268	27.8	27.2	834	658	78.9	74.5	1,226	81.5
Graduate student, federal aid non-applicant	2,910	758	26.0	25.6	1,143	851	74.4	68.5	1,609	76.5
rirst-professional student, rederal aid			•						_	
applicant	1,883	411	21.8	21.5	733	584	79.7	76.4	995	816
First-professional student, federal aid								_		)
non-applicant	387	73	18.9	18.9	178	132	74.2	72.6	205	7.77
NOTE: Respondent counts include partial interviews: all weighted rates have heen corrected to account for any actional or account NDC A C included	weighted rate	es have been corre	acted to account	for our outing	1000	ATDC A C. T. T.	•	•		

NOTE: Respondent counts include partial interviews; all weighted rates have been corrected to account for any estimated or actual NPSAS-incligibles or exclusions among the nonrespondents.

Institutional categories used here were verified by the institutions to correct classification errors on the sampling frames. Student interview strata reflect only those corrections to the initial sampling strata that were available from CADE data; the few additional frame errors, detected only during the interview process have not been incorporated.

brase-1 eligible group is comprised of the 51,195 students selected into Phase 1, minus 1,326 found to be NPSAS-ineligible and 693 found to be exclusions during interviewing.

The Phase-2 eligible group is comprised of the 27,178 students selected for Phase 2, minus 803 found to be NPSAS-ineligible and 636 found to be exclusions during Phase-2 interviewing.

This rate reflects the extent of respondent "coverage" of the full CATI sample and accounts for differential Phase-2 sampling rates; under such rate differentials, an unweighted coverage rate would not be meaningful.

The Phase-1 response rate achieved for all students was about 26 percent, and the weighted and unweighted rates within domain are quite similar (differing by no more than 2.1 percentage points). Phase-1 rates show some variation over the domains considered in the table, but are, for the most part within 2 and a half percentage points of the rate for all students (ranges are from 19 to 30 percent among unweighted rates and from 19 to 32 percent among weighted rates). First-professional students were the most difficult group to resolve in Phase 1 (this is also reflected in slightly lower rates for students at institutions from which these cases were sampled), while the potential FTBs (effort directed toward whom was greatest in all phases) were most easily resolved during the initial interviewing stage<sup>21</sup>.

The unweighted Phase-2 interview rate for all students selected for that phase was 72 percent; the weighted rate was 68 percent. As reflected in that difference, the within-domain weighted and unweighted Phase-2 rates generally differ more from each other than was the case for Phase-1. Considerably greater variability of Phase-2 rates is also observed over the tabled domains; unweighted rates range from 58 to 80 percent, while weighted rates range from 57 to 76. As with many of the rates presented in this report, phase-2 rates are lowest among students from institutions that are for-profit or offer less than a 4-year program.

Overall effective response rates are a complex function of both Phase-1 and Phase-2 rates; however, they are more heavily weighted by the Phase-2 results (due to both the considerably greater weights carried by those selected into Phase 2 and the relatively low Phase-1 rates). Coverage for the defined overall student population is 76 percent, and these rates vary from a low of 69 percent to a high of 82 percent across the domains presented in Table 3.7. As with other rates examined, rates are generally lowest among institutions offering programs of 2-years or less and among for-profit institutions.

Of some additional interest is the uniformly higher coverage rates for federal aid applicants than for non-applicants within the three student groups wherein such a breakdown is shown (i.e., non-FTB undergraduates, graduate students, and first-professional students). This directionality is also reflected (but to a lesser degree) in both the Phase-1 and Phase-2 rates. Federal aid applicants should be more easily located, since additional locating information is available from the SAR-96 data; also, a study of student aid should also be more relevant to recipients, which should lead to higher interviewing rates when they are located.

Table 3.8 provides results that allow an examination of the effect of each of the two sequential operations (locating and interviewing, when located) in obtaining responses. For these purposes, only unweighted rates are considered; the examination is also restricted to Phase-2 cases (Phase-1 results are not particularly applicable, since all respondent cases completed therein were both located *and* interviewed). Consequently these results are based on the 27,178 sample members selected for Phase 2 minus the 1,439 found to be

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<sup>&</sup>lt;sup>21</sup>The higher Phase-1 interviewing rate among potential FTBs may also be a function of the "supplemental" samples of FTBs who were selected (for whom local telephone numbers were "fresher" than for other groups selected at the initial sampling stage.

Table 3.8—Phase-2 student locating rates and interview response rates conditional on locating, by selected classifications

	Number	Locat	ed <sup>c</sup>	Interviewed	if located d
Type of student <sup>a</sup>	Eligible <sup>b</sup>	Number	Percent <sup>e</sup>	Number	Percent
All students	25,739	21,888	85.0	18,350	84.7
Institutional level				<u> </u>	
Less-than-2-year	2,391	1,685	70.5	1,402	83.2
2-year	5,672	4,446	78.4	3,674	82.6
4-year non-doctorate-granting	7,746	6,825	88.1	5,847	85.7
4-year doctorate-granting	9,930	8,932	90.0	7,607	85.2
Institutional control		<u>^</u>		7,007	- 05.2
Public	13,968	12,091	86.6	10,221	84.5
Private, not-for-profit	8,374	7,317	87.4	6,215	84.9
Private, for-profit	3,397	2,480	73.0	2,094	84.4
Institutional sector				2,07.	
Public, less-than-2-year	525	400	76.2	325	81.2
Public, 2-year	3,391	2,684	79.2	2,201	82.0
Public, 4-year non-doctorate-granting	4,282	3,787	88.4	3,225	85.2
Public, 4-year doctorate-granting	5,770	5,220	90.5	4,470	85.6
Private, not-for-profit, 2-year or less	1,238	957	77.3	799	83.5
Private, not-for-profit, 4-year non-doctorate-granting	2,990	2,662	89.0	2,293	86.1
Private, not-for-profit, 4-year doctorate-granting	4,166	3,698	89.2	3,123	84.5
Private, for-profit, less-than-2-year	1,650	1,140	69.1	958	84.0
Private, for-profit, 2-year or more	1,747	1,340	76.7	1,136	84.8
Student interview stratum		<u> </u>		1,150	
Potential FTB	13,376	10,674	79.8	9,076	85.0
Other undergraduate, federal aid applicant	5,783	5,303	91.7	4,605	86.8
Other undergraduate, federal aid non-applicant	3,692	3,258	88.2	2,624	80.5
Graduate student, federal aid applicant	834	759	91.6	658	86.7
Graduate student, federal aid non-applicant	1,143	1,047	93.7	851	81.3
First-professional student, federal aid applicant	733	687	93.7	584	85.0
First-professional student, federal aid non-applicant	178	160	89.9	132	82.5

NOTE: All response rates are unweighted and apply only to eligible cases sampled for Phase 2 interviewing.

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alnstitutional categories used here were verified by the institutions to correct classification errors on the sampling frames. Student interview strata reflect only those corrections to the initial sampling strata that were available from CADE data; additional frame errors, detected only

during the interview process are not incorporated.

The eligible group is comprised of the 27,178 students selected for Phase 2 interviewing, minus 803 found to be NPSAS-ineligible and 636 found to be exclusions during Phase 2 interviewing.

CEligible students were considered located if they were personally reached by telephone or if a third party verified that the number reached by phone was the student's residence.

Including 14,871 complete interviews and 3,659 partial, abbreviated, and/or minimal interviews.

Rate is based on the number of *eligible* students within the row under consideration. Rate is based on the number of *located* students within the row under consideration.

NPSAS-ineligible or exclusions during that phase. Rates for locating are based on eligible totals, while the conditional interviewing rates are based on the number located. Sample members were considered to be located if they were reached by telephone or if a third party verified that the phone number reached was at the sample members residence; interviewed cases include both complete interviews (14,871) and partial interviews (3,659).

The product of locating rates and the conditional interviewing rate yields the overall unweighted Phase 2 response rate shown previously in Table 3.7. This relationship allows the determination of the relative effect of the two operations on overall response rates. Over all students, the locating rate is 85 percent, as is the conditional interviewing rate; however, over the different types of institutions attended by sample members, the variation in conditional interviewing rates are quite small (ranging only from 81 percent to 86 percent) when compared to those for locating (ranging from 69 percent to 90 percent). Consequently, the ability to locate plays a larger part in determining response rates when considering the types of institutions shown; specifically, the previously noted relatively low response rates among students from institutions that are for-profit and/or that offer programs of two years or less are principally a function of the difficulty in locating them. This suggests that such students are more mobile and independent and/or that the associated institutions are less punctilious in maintaining information allowing the students to be located after graduation.

Since the bulk of the student samples from 2-year and less-than-2-year institutions were potential FTBs, it should not be surprising, in light of previous findings, that location rates for the potential FTB student sampling stratum was the lowest of all student strata considered. Among the remaining student strata, both locating and conditional interviewing rates show relatively small variation; however, (with a single exception) the directionality of rates for both locating and interviewing (after location) favors federal aid applicants (supporting the previously advanced rationale for the response rate differences).

## 3.3.2 Parent Subsample

As indicated previously, a subset of students was selected for administration of interviews to their parent(s) to obtain supplemental interview data (e.g., parent demographics, finances, and postsecondary decision making regarding their child) that could not be reliably obtained from the student and that were not available from institutional or CPS records. This supplemental information was needed (and sought) for students who were: (1) dependent undergraduates who had not received federal aid; (2) dependent undergraduates who had received federal aid but for whom not all applicable data were obtained from extant records; and (3) "newly independent" undergraduate students (i.e., 24- and 25-year old students, who recently passed the age at which they could still be defined as dependent under Federal definitions).

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Depending, in part, on the order in which they were contacted, the order in which parents and associated students were interviewed varied; however, due to the supplementary purpose of the parent interview, any data obtained therefrom were only applicable if the associated student was determined to be NPSAS-eligible and also interviewed<sup>22</sup>. During the process of parent and student interviewing, parents of selected students were also found to be either ineligible (e.g., deceased, student improperly defined and thus not eligible for parent interview) or excludable from any further attempts at interviewing, even if the student responded. In addition to the typical exclusions discussed previously regarding students (e.g., institutionalized, out of the country, infirm, having no telephone), parents were also excluded if the student or associated institution emphatically insisted that the parents not be contacted<sup>23</sup>.

The rates at which supplemental parent data were obtained among those NPSAS-eligible students who completed some full or partial form of the student interview are shown in **Table 3.9**. Among the 5,016 eligible parent interview cases,<sup>24</sup> full or partial parent interviews were obtained for 3,352, for an overall unweighted supplementation rate of 67 percent.<sup>25</sup> For the categories considered in the table, such rates range from a low of 51 percent among parents of applicable students sampled from private, for-profit, less-than-2-year institutions to a high of 76 percent among dependent, undergraduate, federal aid non-recipients. Even though statistics in Table 3.9 are contingent on response to the student interview, variations of the rates of supplementation among types of involved institutions mirror, in many ways, the variations in student interview rates; rates are lower among the for-profit institutions and among institutions offering programs of less than 4 years.

## 3.4 Overall Study Participation

The students included in the final NPSAS:96 analysis data base were defined to be the overall study respondents or, more accurately, "yielding cases". Of the 63,616 sample students selected from eligible sample institutions, only 51,195 selected for Phase 1 of the CATI sample were considered eligible as yielding cases. As a result of the locating and

<sup>&</sup>lt;sup>27</sup>As noted previously, institutional record data (CADE) are available for 55,665 students in a separate data file.



<sup>&</sup>lt;sup>22</sup>As might be expected, parent interview data were, in fact, collected for some students who were found NPSAS-ineligible or who were never interviewed; data from such interviews were not used.

<sup>&</sup>lt;sup>23</sup>One institution refused to participate unless no attempts were made to contact parents of any of their selected students; continued institutional and student participation were deemed more important to study success than pursuit of a parent interview in such cases.

<sup>&</sup>lt;sup>24</sup>Among NPSAS-eligible students who were interviewed, 5,531 had been selected for parent interview; among those, 60 parents were determined ineligible, and 455 were determined exclusions.

<sup>&</sup>lt;sup>25</sup>Because of the nature of parent interviews and the fact that all CATI-eligible students who fell into one of the three applicable student types were selected with certainty for such interviews, weighted analyses are not particularly meaningful (and were not conducted). The lower rate of parent interviews, when compared to student interviews, reflects the fact that the former were given lower priority than the latter.

<sup>&</sup>lt;sup>26</sup>A more stringent response definition was imposed for the subset used as the baseline cohort for the beginning postsecondary student (BPS) longitudinal study. Response rates for first-time beginning students (FTBs) are presented elsewhere in this report.

Table 3.9— Overall parent supplement interview rates, by selected classifications

		Intervi	ewed <sup>c</sup>
Type of student of parent a	Eligible <sup>b</sup>	Number	Percent
All students' parents	5,016	3,352	66.8
Institutional level			
Less-than-2-year	302	155	51.3
2-year	1,027	659	64.2
4-year non-doctorate-granting	1,662	1,127	67.8
4-year doctorate-granting	2,025	1,411	69.7
Institutional control			
Public	3,038	2,113	69.6
Private, not-for-profit	1,522	994	65.3
Private, for-profit	456	245	53.7
Institutional sector			
Public, less-than-2-year	72	44	61.1
Public, 2-year	633	421	66.5
Public, 4-year non-doctorate-granting	1,003	704	70.2
Public, 4-year doctorate-granting	1,330	944	71.0
Private, not-for-profit, 2-year or less	223	141	58.7
Private, not-for-profit, 4-year non-doctorate-granting	604	396	65.6
Private, not-for-profit, 4-year doctorate-granting	695	467	67.2
Private, for-profit, less-than-2-year	206	106	51.5
Private, for-profit, 2-year or more	250	139	55.6
Student interview stratum for parent supplement			
Dependent undergraduate, federal aid non-recipient	2,611	1,913	76.2
Dependent undergraduate, federal aid recipient lacking CADE	1,078	696	66.8
"Newly independent" undergraduate	1,327	743	58.6

**NOTE:** Response rates are unweighted (weighted rates are considered relatively meaningless for this group) and based on total eligible parents in the row under consideration.



<sup>&</sup>lt;sup>a</sup>Institutional categories used here were verified by the institutions to correct classification errors on the sampling frames. Student interview strata for parent interviewing reflect only those corrections to the initial sampling strata available from CADE data; additional frame errors, detected only during the interview process are not incorporated.

<sup>&</sup>lt;sup>b</sup>The eligible group is comprised of the 5,531 parents of students who were both selected for parent interviewing and responded to some form of the student interview, minus 515 parents determined to be ineligible or exclusions during interviewing.

Including 3,313 full interviews and 39 partial interviews.

interviewing operations, an additional 1,326 sample members were found to be ineligible (some of these were deceased, but most failed to meet one or more of the criteria for NPSAS eligibility); consequently, the number of sample members eligible to be a yielding case was reduced to 49,869.

To assure that the study analysis file would contain sufficient meaningful data, an eligible student was defined to be a "yielding case" (included in the analysis data file), if either of the following conditions were satisfied:

- 1. The items in Section A of the Student CATI were sufficiently completed to identify first-time beginning students, or an abbreviated or minimal version of the student interview was completed (mail, Spanish, or refusal conversion instrument), or
- 2. CADE was effectively complete (i.e., Section 2, regarding enrollment and tuition was complete; the characteristics and subsection of Section 1 was complete; and either Section 3 was complete or comparable CPS, Pell, or NSLDS information was obtained).

Using this definition of the overall study yield status, **Table 3.10** shows that 48,389 of the 49,869 eligible sample students were classified as "yielding cases" for an unweighted student yield rate of 97.0 percent. This table also presents the study yield rates, weighted and unweighted, by various institutional and student characteristics. The weighted yield 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 student yield rate in Table 3.10 is 96.3 percent. Both the weighted and unweighted yield rates shown in Table 3.10 are quite consistent and in all cases exceed 92 percent.

## 3.5 Reinterviews

Among eligible sample members who completed the NPSAS:96 interview, a sample was selected to participate in a reliability reinterview (containing a small subset of the interview items and to be conducted approximately one month after the initial interview).<sup>28</sup>

A total of 273 respondents were selected for the reliability reinterview. The reinterview sample, together with rates of consent and subsequent participation in a reinterview, are shown in **Table 3.11**.<sup>29</sup>

<sup>&</sup>lt;sup>29</sup>Due to the built-in delay in administering the reinterview and the plan to complete 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 agreement and 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.



<sup>&</sup>lt;sup>28</sup>Unfortunately, because of delays in development of the CATI reinterview program, as well as in relocating/recontacting some individuals selected for this substudy, the actual time interval between initial interview and reinterview was as long as six months.

Table 3.10—Overall study student yield rates

Type of student <sup>a</sup>	Eligible students <sup>b</sup>	Student yield <sup>c</sup>	Unweighted yield rate <sup>d</sup>	Weighted yield rate <sup>d</sup>
All students	49,869	48,389	97.0	96.3
Institutional level				1
Less-than-2-year	3,971	3,831	96.5	96.5
2-year	10,401	10,049	96.6	95.4
4-year non-doctorate-granting	15,526	15,042	96.9	96.6
4-year doctorate-granting	19,971	19,467	97.5	97.1
Institutional control	_			
Public	27,513	26,724	97.1	96.0
Private, not-for-profit	16,665	16,158	97.0	96.8
Private, for-profit	5,691	5,507	96.8	97.7
Institutional sector				
Public, less-than-2-year	1,022	1,020	99.8	99.4
Public, 2-year	6,388	6,167	96.5	95.3
Public, 4-year non-doctorate-granting	8,538	8,221	96.3	95.7
Public, 4-year doctorate-granting	11,565	11,316	97.8	97.4
Private, not-for-profit, 2-year or less	2,208	2,072	93.8	92.8
Private, not-for-profit, 4-year non-doctorate-granting	6,082	5,966	98.1	97.8
Private, not-for-profit, 4-year doctorate-granting	8,375	8,120	97.0	96.4
Private, for-profit, less-than-2-year	2,587	2,492	96.3	96.2
Private, for-profit, 2-year or more	3,104	3,015	97.1	98.6
Student level <sup>e</sup>				
Undergraduate student	42,637	41,359	97.0	96.2
Graduate student	4,871	4,721	96.9	96.7
First-professional student	2,361	2,309_	97.8	97.6

NOTE: All yield rates are conditional on institutional participation through student sampling.

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<sup>&</sup>lt;sup>a</sup>Both institutional and student classifications have been verified against collected data to correct classification errors on the sampling frames.

<sup>&</sup>lt;sup>b</sup>The eligible group is comprised of the 51,195 students selected for Phase 1 CATI, less 1,326 students who were found to be NPSAS-ineligible during subsequent interviewing.

<sup>&</sup>lt;sup>c</sup>A yielding student was defined as one who had completed the interview sufficiently to be accurately classified or for whom the CADE data were effectively complete.

These rates are not corrected for the estimated 2.6 percent of non-yielding cases who were expected to be NPSAS-ineligible.

<sup>&#</sup>x27;Student level is based on the student's last term of enrollment at the NPSAS institution during the NPSAS year.

Table 3.11--Reliability reinterview results, by student and institution classifiers

	i i	ted for erview	1 -	eed to	Reinte	rviewed
Type of student	Number	Number Percent <sup>a</sup> Number Percent <sup>b</sup>		Number	Percent <sup>c</sup>	
Total	273 100.0 250 91.6		233	93.2		
Student stratum <sup>d</sup> Potential FTB	144	52.7	129	89.6	120	93.0
Other undergraduate	91	33.3	86	94.5	78	90.7
Graduate/first-professional	38	14.0	35	92.1	35	92.1
Institutional control Public	151	55.3	140	90.3	132	94.3
Private, non-profit	94	34.4	84	89.4	80	95.2
Private, for-profit	28	10.3	26	92.9	21	80.8

<sup>&</sup>lt;sup>a</sup>Percentage based on column total.

Among the 273 student respondents sampled for reinterview, 250 (approximately 92 percent) agreed to participate. Agreement rate differences among subgroups are not marked, ranging from 89 to 95 percent, with the lowest rates for agreement to participate being among non-FTB undergraduates and students from private, not-for-profit institutions. Among the 250 selected students agreeing to participate in the reinterview, 233 (approximately 93 percent) completed the reinterview. Over half of those who agreed and were not interviewed represented individuals who could not be relocated with the other half representing explicit or implicit refusals at the time of recontact. It is interesting to note that those in the FTB student group (who were subjected to the longest interview) were the least likely student group to be reinterviewed. Also, students from private for-profit institutions were substantially less likely to be reinterviewed, following the initial agreement, than were students in other types of institutions. This group is generally more mobile than others, and thus more difficult to relocate.

Despite the nature of the selection process, the reinterview sample was quite representative of the total respondent group in respect to institutional control. Specifically, the percentage distribution of the reinterview sample over institutional control as shown in Table 3.11 (second column) closely approximates that for all respondents (namely, public: 55 percent; private, non-profit: 32 percent; and private, for-profit: 13 percent). The distribution of reinterview selections over student types is also consistent with that for all respondents (potential FTBs: 50 percent; other undergraduates: 38 percent; and graduate/first-professional: 12 percent).

<sup>&</sup>lt;sup>b</sup>Percentage based on total selected for interview, within row under consideration.

<sup>&</sup>lt;sup>c</sup>Percentage based on total agreeing to participate in interview, within row under consideration.

<sup>&</sup>lt;sup>d</sup>Some minor frame error corrections are not reflected here; consequently, some classification errors exist.

## Chapter 4

## **Evaluation of Operations and Data**

Evaluation studies were planned for NPSAS:96 as part of the overall study design (see Section 2.3.6). Many such evaluations were formative, to assist in day-to-day monitoring of the study and to allow quick detection (for subsequent correction) of problematic operations; other evaluations were summative. Evaluations were useful in identifying potential sources influencing study outcomes, both overall and within the several categories of institutions and students represented in the study. Such results, reported in this chapter, should prove useful in planning for subsequent waves of NPSAS.

## 4.1 Enrollment List Acquisition and Processing

Consistent with NPSAS:93 and to facilitate control over student sample yield, student sampling within an institution was deferred until enrollment lists were obtained for all applicable terms. Given the sequential nature of the student data collection (i.e., CPS matching followed by institutional records collection, and, in turn, telephone interviewing) and the timeframe allotted for these activities, it was important to obtain enrollment lists from a majority of institutions early in the 1996 calendar year and all lists before the summer of that year. However, under the adopted approach, delays were necessitated at schools using certain calendar systems.

The process of contacting institutions and obtaining student enrollment lists spanned a seven-month period, from February through August 1996, during which time useable lists were obtained from 836 of the eligible sample institutions. **Table 4.1** presents the number of enrollment lists returned by month and by type of institutional calendar system; cumulative receipt is depicted graphically in **Figure 4.1**. As can be seen, about two-thirds of the lists were obtained within the first three months of the process, and 96 percent of all institutions that ever provided lists did so within five months. Because schools using semester/trimester systems represent about two-thirds of the total participating schools, the "all institution" results most closely parallel those with this type of calendar system. Even though reimbursement was offered for computer and staff time needed to compile the lists, obtaining the lists at a number of schools involved a considerable number of prompting and follow-up telephone calls.



Other delays were strictly attributable to the particular calendar system used. Institutions using a semester or trimester system were considerably more likely than those on a quarter or continuous enrollment system to provide lists early; 59 percent on the semester/trimester schedule provided complete student lists within the first two months compared to only 4 percent of the schools on the quarter system and 15 percent of the schools on a continuous or other enrollment system.

Table 4.1—Enrollment list receipt, by month and institutional calendar system

	All inst	itutions	Semester	/trimester	Qua	rter	Continue	ous/other
Timeframe	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All months	836	100.0	556	100.0	152	100.0	128	100.0
February	148	17.7	143	25.7	0	0.0	5	3.9
March	205	24.5	184	33.1	6	3.9	15	11.7
April	179	21.4	111	20.0	49	32.2	19	14.8
May	80	21.5	58	10.4	67	44.1	55	43.0
June	90	10.8	43	7.7	22	14.5	25	19.5
July	24	2.9	13	2.3	5	3.3	6	4.7
August	10	1.2	4	0.7	3	2.0	3	2.3

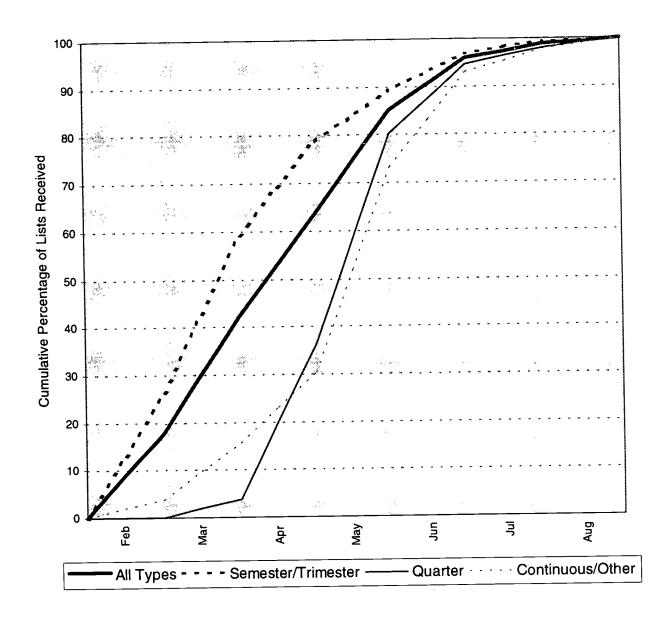
Note: All statistics based on eligible institutions that provided lists. All percentages are based on the "All Months" total in the column under consideration.

Institutional NPSAS:96 participation (through list provision) was also examined for potential effects of prior NPSAS participation. Arguments have been made on both sides of this issue; prior participation would either reduce current participation propensity (due to past burden experienced) or would lead to higher current participation rates reflecting an overall cooperative propensity. Summary results of these analyses are shown in **Table 4.2**. Among eligible institutions, the NPSAS:96 participation rate (defined as providing student lists) among the 504 institutions that had previously participated in NPSAS was 95 percent; significantly higher than the 90 percent rate among the 396 that had not. Further (not shown in the table), NPSAS:96 participation was greatest (97 percent) among the 148 institutions that had participated in all 3 prior NPSAS studies.



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Figure 4.1—Cumulative percentages of enrollment list receipt by month and institutional calendar system.





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Table 4.2—Institutional NPSAS:96 enrollment list participation, by prior NPSAS participation

				ritor ives As participation	harmhann		
			Never			At least once	
	Eligible		Provid	Providing lists		Providing lists	ng lists
Type of institution	institutions	Number	Number	Percent <sup>b</sup>	Number	Number	Percent <sup>c</sup>
All institutions	900	396	357	90.2	504	479	95.0
Institutional level							
Less-han-2-year	118	86	83	84.7	20	17	85.0
2-year	251	127	119	93.7	124	119	0.96
4-year non-doctorate-granting	260	116	107	92.2	144	135	93.8
4-year doctorate-granting	271	55	48	87.3	216	208	96.3
Institutional control							
Public	448	154	148	96.1	294	286	97.3
Private, not-for-profit	303	122	106	86.9	181	168	92.8
Private, for-profit	149	120	103	85.8	29	25	86.2
Institutional sector							
Public, less-than-2-year	33	25	24	96.0	∞	7	87.5
Public, 2-year	165	99	4	97.0	66	95	0.96
Public, 4-year non-doctorate-granting	123	42	40	95.2	81	79	97.5
Public, 4-year doctorate-granting	127	21	20	95.2	106	105	99.1
Private, not-for-profit, 2-year or less	45	33	30	6:06	12	12	100.0
Private, not-for-profit, 4-year non-doctorate-granting	115	99	49	87.5	59	53	8.68
Private, not-for-profit, 4-year doctorate-granting	143	33	27	81.8	110	103	93.6
Private, for-profit, less-than-2-year	75	65	53	6.98	10	∞	80.0
Private, for-profit, 2-year or more	74	55	50	74.6	19	17	89.5

<sup>b</sup>Percentages are based on the count of eligible schools with no prior NPSAS participation within the row under consideration. \*Institutional classifications used here were verified by the institutions to correct classification errors on the sampling frame. Percentages are based on the count of eligible schools with prior NPSAS participation within the row under consideration.

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These results clearly support the participation propensity hypothesis. Moreover, the differences were directionally consistent within public and private, not-for-profit institutions (most pronounced among the latter). No consistent differences of any magnitude were observed among the private, for-profit institutions; also the directional difference was reversed among public institutions offering only programs less than 2 years.

Institutional participation across NPSAS studies was also examined in terms of the Carnegie classification categories, as shown in **Table 4.3**. **Table 4.4** shows the number of historically black colleges and universities participating in the current and prior NPSAS studies.

Table 4.3—Institutional participation in NPSAS by Carnegie classification category and year of study

· · · · · · · · · · · · · · · · · · ·	NPS.	AS:87	NPS.	AS:90	NPS.	AS:93	NPS	AS:96
Carnegie institutional classification	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All institutions	880	100.0	990	100.0	1,061	100.0	836	100.0
Research I	72	8.2	64	6.5	67	6.3	78	9.3
Research II	25	2.9	22	2.2	25	2.4	23	2.8
Doctoral I	30	3.4	27	2.7	31	2.9	36	4.3
Doctoral II	31	3.5	37	3.7	38	3.6	31	3.7
Masters I	127	14.5	154	15.6	227	21.4	167	19.8
Masters II	14	1.5	19	1.9	33	3.1	22	2.6
Baccalaureate I	25	2.9	27	2.7	46	4.3	18	2.2
Baccalaureate II	50	5.7	63	6.4	104	9.8	56	6.7
Associate	236	26.8	247	24.9	225	21.2	202	24.2
Religious	18	2.0	8	0.8	18	1.7	9	1.1
Medical	5	0.5	16	1.6	22	2.1	4	0.5
Other health	7	0.8	12	1.2	11	1.0	5	0.6
Engineering/technical	9	1.0	6	0.6	6	0.6	3	0.4
Business/management	13	1.5	12	1.2	10	1.0	13	1.5
Art/music/design	7	0.8	6	0.6	10	1.0	6	0.7
Law	2	0.2	6	0.6	8	0.7	4	0.5
Teacher	0	0.0	0	0.0	1	0.0	0	0.0
Other special	2	0.2	2	0.2	4	0.4	0	0.0
Tribal	1	0.1	4	0.4	2	0.2	1	0.1
Not classified	206	23.5	258	26.1	173	16.3	158	18.9



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Table 4.4—NPSAS participation of historically black colleges and universities (HBCUs)

Participated in:	 Number of HBCUs participating
NPSAS:87	17
NPSAS:90	15
NPSAS:93	28
NPSAS:96	 16

Types of lists provided by participating schools are shown, by highest level of offering, in **Table 4.5.** A single, unduplicated (i.e., with duplicate entries over terms of enrollment removed) electronic list was preferred; however, any set of electronic lists was desirable since they could be more easily unduplicated and used. Overall, two-thirds of the institutions provided some type of electronic list(s); another 12 percent of participating institutions provided simple, unduplicated hardcopy list(s) and the remainder (22 percent) provided hardcopy lists that required manual unduplication.

Table 4.5— Types of student lists provided by institutions, by highest level of offering

Highest level of offering	Type of lists received	Number	Percent <sup>a</sup>
All institutions	All lists	844	100.0
	Electronic	556	65.9
	Hard-copy, unduplicated	100	11.9
	Hard-copy, duplicated	188	22.3
Less-than-2-year	All lists	100	100.0
	Electronic	17	17.0
	Hard-copy, unduplicated	42	42.0
	Hard-copy, duplicated	41	41.0
2-year	All lists	239	100.0
	Electronic	139	58.2
	Hard-copy, unduplicated	32	13.4
	Hard-copy, duplicated	68	28.5
4-year, non-doctorate-granting	All lists	246	100.0
	Electronic	184	74.8
	Hard-copy, unduplicated	12	4.9
	Hard-copy, duplicated	50	20.3
4-year, doctorate-granting	All lists	259	100.0
	Electronic	216	83.4
	Hard-copy, unduplicated	14	5.4
	Hard-copy, duplicated	29	11.2

Note: Institutional total includes institutions providing unusable lists (i.e., lists that were not considered of acceptable completeness or accuracy for sample selection).

<sup>a</sup>Percents are based on the "All lists" total within the type of institution under consideration.



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The propensity to provide electronic lists increases monotonically with the level of offering of the institution, probably reflecting the ability to provide such lists; this is quite likely related to the increasing average size of institutions (and associated increasing power and size of the computing facility and staff) as level of offering increases. The modal list type (42 percent) provided by less-than-two-year institutions was unduplicated hard-copy lists; only 17 percent of such institutions provided electronic lists. The percentage of lists requiring manual unduplication was also greatest among the less-than-2-year institutions, and decreased monotonically with increasing level of offering.

Returned lists were also evaluated in terms of appropriateness of format and documentation (relative to instructions provided to ICs for preparing lists), and accuracy of student counts; where possible, more appropriate information was obtained from the institutions. **Table 4.6** indicates the major types of discrepancies encountered with the lists received. Of considerable note is the fact that: (a) almost half of the institutions provided lists with one or more such problems and (b) among problems encountered, the principal one (involving well over a third of the institutions) was "suspect count," even though that check was considerably relaxed in early May 1996 (actually suspended at that time for less-than-2-year institutions). This check involved disagreement, by 25 percent or more, between the count obtained from lists (after correction for duplication) and the *nonimputed*<sup>2</sup> unduplicated counts from the 1994-95 or 1993-94 IPEDS IC file<sup>3</sup>. The check was suspended or relaxed because about 85 percent of the institutions that were called about the discrepancy indicated that the sampling list counts were correct.

The next most frequent problem experienced with provided lists (involving about 11 percent of the institutions overall) was failure to identify FTBs. This problem decreased with increasing institutional level of offering, reflecting the fact that this type of problem was more prevalent on hard-copy lists (as shown above).

## 4.2 CPS Matching

Two aspects of the Central Processing System (CPS) matching process (described in Chapter 2) were evaluated for this report. First, the percent of non-CPS match cases for which a Student Aid Report (SAR) was found in the institution records was examined to estimate "misses" in the CPS operation. Second, a comparison was made between the Expected Family Contribution (EFC) value obtained from the CPS and the updated EFC value as collected from institution records in CADE, to estimate corrections on the CPS data.

<sup>&</sup>lt;sup>3</sup>Separate checks were performed, where applicable, for undergraduates, graduate students, and first-professional students.



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<sup>&</sup>lt;sup>2</sup>If only imputed data were available from both files, the check was not performed.

Table 4.6—Types of discrepancies encountered with student lists, by highest level of offering

Unreadable	entified 92	
FTBs not id Insufficient Unreadable Unable to id Other  Less-than-2-year (N = 100)  None Suspect cou FTBs not id Insufficient Unreadable Other  2-year (N = 239)  None Suspect cou FTBs not ide FTBs not ide	t <sup>b</sup> 299 entified 92	1
Insufficient Unreadable Unable to id Other  Less-than-2-year (N = 100)  None Suspect cou FTBs not id Insufficient Unreadable Other  2-year (N = 239)  None Suspect cou FTBs not ide	entified 92	35.1
Unreadable Unable to id Other  Less-than-2-year (N = 100)  None Suspect cou FTBs not id Insufficient Unreadable Other  2-year (N = 239)  None Suspect cou FTBs not ide		10.9
Unable to id Other  Less-than-2-year (N = 100)  None Suspect cou FTBs not id Insufficient Unreadable Other  2-year (N = 239)  None Suspect cou FTBs not ide	documentation 11	1.3
Less-than-2-year (N = 100)  Less-than-2-year (N = 100)  Suspect coure FTBs not identification in the course of the coure FTBs not identification in the course of the coure FTBs not identification in the course of	electronic file 20	2.4
Less-than-2-year (N = 100)  None Suspect cou FTBs not id Insufficient Unreadable Other  2-year (N = 239)  None Suspect cou FTBs not ide	entify graduate/first-professional students 12	1.4
Suspect cou FTBs not id. Insufficient Unreadable Other  2-year (N = 239) None Suspect cou FTBs not ide	44	5.2
FTBs not id Insufficient Unreadable Other  2-year (N = 239)  None Suspect cour FTBs not ide	43	43.0
2-year (N = 239)  Respect to the second seco		33.0
2-year (N = 239)  None Suspect cour FTBs not ide		22.0
2-year (N = 239)  None Suspect cour FTBs not ide		1.0
2-year (N = 239)  None Suspect cour FTBs not ide	electronic file 1	1.0
Suspect cour FTBs not ide		11.0
FTBs not ide	h 133	55.7
	in i	29.7
I Insufficient		14.6
		0.8
	electronic file 4	1.7
4-year, non-doctorate-granting (N = 246) None	16	6.7
	b 138	56.1
Suspect cour		35.0
FTBs not ide		8.1
	locumentation 3	1.2
	electronic file 4	1.6
Other	entify graduate/first-professional students 7	2.9
4-year, doctorate-granting (N = 259) None	8	3.3
Suspect cour	121	46.7
FTBs not ide		42.1
		5.8
		1.9
	electronic file	4.3
Other	entify graduate/first-professional students 5	1.9

Note: Institutional total includes institutions providing unusable lists (i.e., lists that were not considered of acceptable completeness or accuracy for sample selection).

<sup>a</sup>Percentages are based on total institutions within institution type under consideration (shown n the first column of the table). Totals do not sum to 100 percent because some lists had multiple problems. <sup>b</sup>These checks were considerably relaxed (and suspended for less-than-2-year institutions) on May 7, 1996.

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An indicator of the comprehensiveness of the CPS matching process is the percent of non-CPS matches for whom a SAR was located at the institution. Since a hardcopy SAR in the institutional records implies that the student should have a record within the CPS database, this statistic can be thought of as a miss rate for CPS matching. That is, this is the rate at which students that should be in the CPS database were not successfully matched. **Table 4.7** presents two such rates at which SARs were found for CPS non-matches. SAR rates are presented using both the initial and final counts of non-matches.

The first rate is based on the initial CPS matching attempt, which was made prior to initiation of CADE data collection within the institutions and as a result of which over 36,000 students did not match. Among these, a SAR was located during the CADE record abstraction for about 12 percent. This rate is an upper bound estimate, which also reflects the realities of operating within a tight timeframe with less than perfect data. Specifically, students for whom SSNs were unavailable at the time of matching could not have been matched and students first applying for aid in later terms of the 1995-96 financial aid year may have been entered into the system subsequent to the time of initial matching.

The second rate shown is based on a smaller subset of students who failed to match the CPS. This subset reflects an additional 3,971 matches that were obtained after collecting CADE records data, principally as a result of obtaining SSNs for additional students, and also for a considerably smaller relative number, availability of later entries made into the system for the 95-96 year. The reduction in the miss rate is dramatic over the first rate, demonstrating the confounding of the rates by inaccurate SSNs. Because this second "nonmatch" group still contains sample members for whom no SSN was obtained, these results too must be considered upper-bound estimates. Overall, a SAR was located and entered at the institution for 5 percent of this second group. Of particular note, however, the rate of 18 percent for students in private, forprofit schools and the 3 percent for students in the public institutions. The difference is most likely attributable to the differential rate at which institutions in the two sectors provided sufficient data on their enrollment list from which to construct a CPS ID number. Also, students may enroll prior to applying for financial aid.

Another evaluation of the CPS matching process was performed using data from the 25,599 students for whom a CPS match was obtained prior to CADE and for whom an EFC value was obtained in CADE.<sup>5</sup> Specifically, the CADE EFC value was compared to the CPS EFC value to determine how often the CPS EFC value was updated based on the EFC value in the institutions financial aid records.

<sup>&</sup>lt;sup>5</sup>Differences between CPS values and institutional record data were assumed to be the result of financial aid administrators using their professional judgement or an institution EFC formula to modify a student's EFC. Hence, the institution's EFC value was considered to be more current that the CPS EFC.



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<sup>&</sup>lt;sup>4</sup>About 9 percent of students from private, for-profit institutions could not have matched to the CPS, as compared to only 2 percent of those in public institutions.

Table 4.7—Extent of "missed" CPS matches, by student types

Type of student	Number of cases which had not matched to a 1995-96 CPS record prior to CADE	Percent of cases for which a SAR was located and entered from institution records	Number of cases which never matched to 1995-96 CPS	Percent of cases for which a SAR was located and entered from institution
Total students	36,230	11.9	32,259	4.8
Less-than-2-year	2,802	20.0	2,303	10.3
4-year non-doctorate-granting	7,724	10.0	7,124	5.2
4-year doctorate-granting	15,025	11.9	13,291	3.7
Institutional control Public Private not for profe	22,478	8.5	20,474	2.8
Private, for-profit	11,016	13.6	9,777	6.4
Institutional sector Public, less-than-2-year	1.121	255	1 072	18.2
Public, 2-year	6,037	4.0	5.762	1.7
Public, 4-year doctorate-granting Public, 4-year doctorate-granting	6,305	9.1	5,545	3.2
Private, not for-profit, 2-year or less	9,015 1,121	11.5	8,094 1,057	3.2
Private, not for-profit, 4-year doctorate-granting Private, not for-profit, 4-year doctorate-granting	3,911	14.2	3,549	7.1
Private, for-profit, less-than-2-year	1,396	34.4	3,171 945	4 % 5 %
Student type <sup>a</sup>	1,340	29.9	1,063	17.6
Undergraduate	27,235	14.4	23,563	5.8
First-profactional	8,002	2.8	7,816	1.4
*** That-professional	993	14.5	880	0.4

Note: A total of 36,230 cases were released for CADE data abstraction without having successfully matched to a 1995-96 CPS record. However, 3,971 of these cases did subsequently match to the CPS. Percentages are based on the row count of "no match" cases under consideration, counts associated with the numerator of the percent are not shown.

<sup>a</sup>Based on the student's last term of enrollment at the NPSAS institution during the NPSAS year.



As shown in Table 4.8, the CADE and CPS EFC values matched exactly for about 90 percent of the cases. When EFC updates did occur within CADE, they were typically from one non-zero EFC to another (either upward or downward).

## **Institutional Record Abstracting** 4.3

The use of CADE procedures, by both contractor field data collectors and institutional staff, to abstract information from institutional student records was first initiated in NPSAS:93. As a result of the NPSAS:93 experiences and informal feedback from NPSAS:93 institutional coordinators, a number of procedures were initiated for NPSAS:96 to enhance the effectiveness and user friendliness of the approach, particularly for the institutional CADE user.

Other CADE procedural refinements were introduced to facilitate the timeliness of CADE completion, including: (a) prescheduling of schools for field staff, (b) maintaining a "hot line" for operational or interpretational problem resolution, (c) scheduled biweekly calls to prompt self-CADE schools and to offer answers to questions that may have arisen: and (d) scheduled weekly calls to field staff to assess their progress.

## 4.3.1. Ease of CADE Software Use

In general, the refinements to CADE resulted in more efficient operations and fewer reported problems than were experienced in NPSAS:93; however, some challenges were not fully met. Based on feedback from the institutional coordinators, the debriefing of field supervisors and field data collectors was extremely positive, and the relative number of questions from the field were considerably reduced over those experienced in NPSAS:93 or in the NPSAS:96 field test. Contractor field staff, particularly those who had participated in NPSAS:93, reported marked improvement in ease of CADE operation and found both the CADE User's Manual and the training quite helpful. Of particular note was the reported "excellent depth and breadth" of the training, particularly the mock situations prepared by NASFAA.

The "hot line" established was generally well received. During the NPSAS:96 field test the most frequent "hot line" call requested information as to the specific meaning of one or more data elements that were being collected in CADE. This issue was substantially reduced through enhancements to the full scale version of the CADE User's Guide. The greatly expanded on-line help screens for the full-scale CADE instrument, including explanations as to the specific nature of information being requested, also played a part in reducing these types of questions.



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Table 4.8—Extent and nature of CADE agreement with CPS EFC

The second secon		200						
		Pre-CADE CPS matches for whom a CADE EFC	PS matches	No update to	CPS EFC value updated from zero to a	CPS EFC value	S	CPS EFC value
Type of student		value v	ras obtained at the institution	the CPS EFC	value greater	positive value to downward (but	downward (but	greater than zero modified
		Nur	Percent	Percent	Percent	Dergent	not to zero)	upward
Total students	6 e	25 599	100.0	600	112212	reteall	rercent	Percent
Institutional level			2001	20.3	3	0.3	4.0	4.7
Less-than-2-year		,	0001	(				
2-year		2,210	100.0	95.8	0.5	0.5	2.4	6.0
4-year non-doctorate-granting		4,919	100.0	97.0	0.3	0.2	1.3	1.2
4-year doctorate-granting		8,280	100.0	91.3	0.5	0.3	3.9	4.1
Institutional control		10,190	0.001	85.2	1.0	0.4	5.7	7.7
Public					_			
Private not-for-profit	*	12,517	100.0	93.1	9:0	0.3	3.0	3.0
Private for mofit		9,295	100.0	84.1	0.9	0.5	2:3	0.0
Tacking on Tacking		3,787	100.0	96.4	0.3	0.3		<del>-</del>
msulutional sector							7.7	0.1
Public, less-than-2-year	•	298	1000	3 00		,		
Public, 2-year		2000	100.0	39.5	0.3	0.0	0.0	0.3
Public, 4-year non-doctorate-granting		2,203	0.001	97.6	0.2	0.4	6.0	6.0
Public, 4-year doctorate-granting		4,14	100.0	93.8	9.0	0.1	3.1	2.4
Private, not-for-profit 2-year or I see		3,702	0.00.0	90.5	0.7	0.3	4.0	4.5
Private, not-for-profit. 4-year non-doctorate-granting		1,505	0.00.0	95.4	9.0	0.2	2.2	1.6
Private, not-for-profit, 4-year doctorate-granting	£0.	3,323	0.001	87.2	0.5	0.4	5.3	9.9
Private, for-profit, less-than-2-year		4,400	100.0	78.5	1.3	9:0	7.8	8
Private for profit 2 year or more		·	100.0	94.7	9:0	0.5	3.2	
Student tyne <sup>a</sup>		2,123	100.0	7.76	0.1	0.1	-	0:-
Undergraduate				<u> </u>				
Graduate	- * .	7	100.0	87.5	0.5	0.3	3.9	44
First-professional		1,669	100.0	86.3	1.6	0.9	5.9	- · · · ·
The province of the province o		1,692	100.0	85.5	2.7	0.7	3.0	. o

Note: Only students for whom a CPS Match was obtained prior to the CADE data abstraction are considered. Percentages are based on the total count (column 1) for the row under consideration; counts associated with the numerator of the percent the are not shown.

<sup>a</sup>Based on the student's last term of enrollment at the NPSAS institution during the NPSAS year.





During the full scale study, a frequent problem arising at self-CADE schools involved specific situations of incompatible host systems or insufficient memory for installing CADE. A memory check was included as a part of the self-CADE installation routine, since CADE required approximately 300K of available conventional memory; however, this did not work particularly well for two reasons. First, schools were confused between conventional memory and total RAM. Second, the virus checking routine (a DOS batch program that called virus checking software) behaved somewhat unpredictably under certain Windows 95 configurations, reporting a virus detection when no virus actually existed. This was a relatively infrequent occurrence during the field test, and was unexpected during the full-scale study.

Problems with packaging CADE data (i.e. preparing data files for shipment back to the contractor), which were common during the NPSAS:93, were significantly reduced; this was attributed to adding a confirmation prompt to the main CADE menu when the packaging option was selected. The prompt reminded users that packaging was a final step, and additional data entry would not be possible once packaging was complete. Additionally, material was added to the *User's Manual* to fully describe the consequences of packaging.

## 4.3.2. Preloading Record Data into CADE

Table 4.9) were preloaded into CADE records prior to collection on-site at the institution. This included customizing the financial aid award section of CADE to include non-federal aid that was common to a particular institution. Such customization proved highly successful during the field test, and was repeated for the full scale study. The most extensive set of preloaded data were obtained from the CPS for federal financial aid applicants. In addition to the CADE SAR items, student demographics such as date-of-birth, marital status, and veterans status were preloaded into CADE. Preloading operations proceeded smoothly, using procedures developed and tested during the NPSAS:96 field test. Delays in this operation that had been experienced during NPSAS:93 were effectively eliminated which is partially attributed to the flexibility of CASES 4.1, in which the CADE software was programmed.

Table 4.9—Nature and source of data element sets preloaded into CADE

CADE data element set	Data source
Institution name/ID	IPEDS
Names of most common institution financial aid awards	Institution coordinator
Names of most common state financial aid awards	Sallie Mae state aid report
Institution clock/credit hour indicator	IPEDS, institution coordinator
Institution term names and dates	Institution coordinator
Student name, SSN, institution ID	Enrollment list
Student type indicator (UG, Grad, FP, FTB)	Enrollment list
Student date-of-birth, marital status, veteran status, and citizenship	CPS record
Student address and phone number	CPS record
Student dependency and expected family contribution	CPS record
Application data from SAR	CPS record



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## 4.3.3. CADE Data Completeness

Under the relatively stringent definition of a "CADE respondent<sup>6</sup>" in NPSAS:96, the vast majority of the eligible sample students (93 percent) were determined to be CADE respondents. Of the 804 institutions that provided any CADE data, 792 (over 98 percent) provided sufficient data for one or more students to be considered CADE respondents. In large measure this was due to the successful incorporation of data completion checks in the CADE software, which were implemented in the field. The relatively low rate of indeterminacy among the CADE responses is principally attributable to these checks.<sup>7</sup>.

Each NPSAS institution is unique with regard to the type of data maintained for its students, and it was anticipated that not all desired information would be available at every institution. However, as a quality control measure the CADE software was designed to not allow "skipping" non-available items by leaving them blank. Instead, the CADE software allowed entry of a "Data Not Available" code. In general, the percent of indeterminate (data not available) responses was low for most CADE items. **Table 4.10** lists the data elements with an indeterminacy rate of over 5 percent among the CADE respondents. Many of these items are applicable only to certain students (e.g. "Year Student Took SAT" is only applicable to those students for whom an SAT score was available at the institution). Consequently, the table is further restricted to items applicable to 1,000 or more respondents.

## 4.3.4 CADE Abstraction Modes

At all sampled schools, the IC were given an option as to whether information about sampled students would be abstracted (guided by the CADE program) by institutional staff<sup>8</sup> or by a contractor FDC. The first option was the recommended option.

<sup>&</sup>lt;sup>8</sup>While the CADE system was self-directing and contained a number of checks to ensure proper installation and use, training institutional staff on the proper use of the system was still needed. This was accomplished through a CADE Users' Manual and an embedded tutorial; also, a hot-line number was established by the contractor to address specific questions as they arose.



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<sup>&</sup>lt;sup>6</sup>In order to be considered a CADE respondent, the student CADE record was required to contain an indication of the student's eligibility, enrollment data (full-time/part-time attendance status, number or credit/clock hours attempted, and/or tuition charges incurred) for at least one term and an indication of the student's financial aid status (aid recipient/non-recipient and/or aid applicant/non-applicant).

<sup>&</sup>lt;sup>7</sup>The NPSAS:93 lesson was clear in indicating that waiting to perform quality control on CADE data until after receiving them back in-house was too late. Therefore, when a user indicated a subsection was complete, the NPSAS:96 CADE software looked for missing data in specific fields; if missing data was discovered, the user was prompted to provide the missing information.

Initial and final institutional choices of student record abstracting method are shown in **Table 4.11** by institutional level, control, and sector, as well as by institution size and sample size. The large majority of coordinators (79 percent) from the 836 participating institutions initially chose the first option (self-CADE); the remaining coordinators chose the contractor FDC abstracting (field-CADE). In the final analysis, the proportion of self-CADE institutions fell to 57 percent. A total of 199 institutions changed methods during the CADE operations; only five of these changed from an initial choice of field-CADE to a final choice of self-CADE. Typically, an institution's abstraction method preference changed after determining that the abstracting job was greater than originally imagined and/or that institutional staff did not have sufficient available time to accomplish the task within the desired time frame.

The NPSAS:96 field test, as well as NPSAS:93 experience, suggested that institutions with very large student enrollment were much more likely to ultimately choose the field-CADE method. This is attributable, at least in part, (and verified by informal IC debriefings) to the size of the sample at the large institutions. Because student sample size is positively related to institution enrollment, the burden of record abstraction becomes greater with increased enrollment. For NPSAS:96, a pattern in the percent of self-CADE institutions within institutional size categories is not as pronounced. However, a clear trend appears when examining the self-CADE percentage by sample size categories, demonstrating the "burden effect" with regard to switches from self-CADE to field-CADE.

The relatively lower proportion of "initially self-CADE" institutions within the public 4-year doctorate/first-professional institutions in part reflects an adjustment to the institution contacting procedures based on the field test data collection experience. For the full-scale study, 4-year institutions on a semester calendar system were targeted as optimal for early field-CADE assignments, and efforts were made to persuade such schools to accept an FDC. The rationale for this adjustment was based on the shorter average duration of field-CADE and the need to complete abstraction very early for a sufficient number of institutions in order to begin CATI data collection.

<sup>&</sup>lt;sup>10</sup>The increase in burden at larger schools is related to other factors than simply increased student sample size; among other things, larger schools also are less likely to have all needed records for all sampled students in a central location.



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<sup>&</sup>lt;sup>9</sup>Because fixed rates are used, within institutional strata, in NPSAS student sampling, the sample size for a institution is proportional to the size of its student body, relative to other schools in its stratum.

Table 4.10—CADE data elements with highest indeterminacy rate

	Dat	ta el	eme	nt						*	Number of applicable cases <sup>a</sup>	Percent responding explicitly "data not available" <sup>b</sup>
SAT reasoning score				Co.		7				P.g. W	11,750	97.0
Year student took SAT					*	ů.		N.		A 3	11,746	31.0
Year Student took GRE				i.	ħ.			,	J		1,920	24.0
Type of high institution d	egree	:/dip	olom	a/ce	rtific	cate		w	~	*	55,616	23.0
Year student took ACT		407.	194		á.	70	-40	* 35	ġ.	28	9,205	22.0
Year student took other G	1P a	dmi	ssio	ns ez	kam			· ·			2,256	22.0
Student marital status	6.	- 1	00,	. with	rigo.	. #	M	*80	· · · · ·	77	55,622	22.0
Student hispanic status	si.	- %	10	Š.	×**	×5;	800	2	. %	¥ ^	55,616	17.0
Student veterans status	37	4	ŵ	3.	- 14. 14.	¥4.	. 😢	. 40	\$	138	55,618	15.0
Student race	796c -	200	- 356	¥.	- 84 -	de-	183		<u>پ</u>	8.0	55,616	15.0
Year received high institu	tion (	degr	ee/c	ertif	icate	3 🚲	April 1	1			41,852	14.0
GRE analytic score	*	۵.	Š		.0001	YOU.	des	. Jak	A.		1,927	11.0
Other G1P exam - score 1	.á",	4	786	**	3	rg.	1000000		- 1		1,522	9.7
Student cumulative GPA	100	alije.	**	**		, residos	. All 2011				54,202	9.7 9.2
Housing on/off campus	Ž	A.7			A.	1	de.	-4:	e salificio	· Alleria	27,038	8.9
Other aid award 2 - source	of a	war	d	-4	4%	- 1			- 🆫		2,559	
Student citizenship status			aidh -	i Albert	sile.			i.	· 6.		55,618	7.6
Tuition - in/out of jurisdic			7850 2000	****	780		- 100 - 100	- 1885			·	6.9
Other aid award 1 - source	3355	280	d					**************************************	* 200		34,881	6.1
Indicator of transfer credi				inet	ituti	Λn	How	1			9,787	6.0
Indicator of completed deg						OII	- 4.		wij.		32,280	5.3
GRE math/quant score		vyu	11.011	CHU	) · ~∭∠		100		e alger		21,989	5.2
many quanti score		- "		74	Υ.	1700		- š			1,938	5.1

Note: Results are limited to cases meeting the definition of a CADE respondent, and include only those items which were applicable to and answered for at least 1000 students, and in which more than 5 percent of the responses were "Data Not Available."

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<sup>&</sup>lt;sup>a</sup>This excludes cases for which the element was not applicable.

bPercentages are based on the number of applicable cases for the row under consideration; the numerator of the percentages is not provided.

## Table 4.11—Institutional original and final choices of record abstraction method

	l			Original obstraction method	otion meth	45	Fin	Final Abstraction Methode	ion Metho	ď
		Total	Self-CADE	A D.F.	Field-CADE	ADE	Self-CADE	ADE	Field-CADE <sup>d</sup>	${f ADE}^{f d}$
et		participating	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Type of institution	-	836	663	79.3	173	20.7	474	56.7	362	43.3
Total Institutional level					ţ	ţ	- 5	0.15	- 0	40.0
Less-than-2-year		100	73	73.0	7.7	27.0	15.	21.0	6	30.0
2 year		238	506	9.98	32	13.4	143	90.1	5	22.2
4-vear non-doctorate-granting	v	242	700	82.6	42	17.4	139	57.4	103	0.74
4-vear doctorate-granting		256	184	71.9	1/2	787	141	77.1		Ì
	>	-	, ,	,	_	23.0	246	26.7	88	43.3
Public	<.	434	334	0.77	3	0.02	751	57.3	117	42.7
Private, not-for-profit	**	274	223	81.4	10	10.0	<u> </u>	) Y		7 7
Private for-profit		128	106	82.8	22	17.7	=	55.5		ĵ.
Institutional sector										
Distinct Less than 2 wear	à	31	25	9.08	9	19.4	19	61.3	12	38.7
Fully, 1935-mar 4. John Dublin 2 moor		159	135	84.9	24	15.1	86	61.6	61	38.4
FUULL, 2-year	2	122	68	73.0	33	27.0	65	53.3	57	46.7
Fublic, 4-year non-unctorate-granting		122	82	69.7	37	30.3	2	52.5	58	47.5
Public, 4-year doctorate-granuing		42	35	83.3	7	16.7	21	50.0	21	50.0
Private, not-tor-profit, 2-year of Less		: 01	2 %	88.2	12	11.8	09	58.8	42	41.2
Private, not-10r-profit, 4-year non-uoctorate-granting		130	8	75.4	32	24.6	9/	58.5	54	41.5
Private, not-for-profit, 4-year doctorate-granung		SC1	2 2	69.4	1 61	30.6	30	48.4	32	51.6
Private, for-profit, less-than-2-year		70	£ 5	2 20	, "	4.5	: 4	62.1	25	37.9
Private, for-profit, 2-year or more	1	8	6	23.5		}				
Institutional size	, ,	•	5	- 5	35	18.6	90	53.2	88	46.8
1,500 or fewer students		188	155	4:10	તે (	2 5	3 5	7.05	165	40.6
1,501 to 14,999 students		406	337	83.0	<del>6</del>	0./1	741	39.4	3 5	0.04
15 000 or more students		242	173	71.5	69	28.5	133	25.0	109	45.0
Institutional sample size		787	726	82.2		17.8	176	61.3	1111	38.7
55 or fewer students		700	726	2.12	54	18.6	172	59.3	118	40.7
56 to 85 students		067 056	161	73.7	- 89	26.3	126	48.6	133	51.4
86 or more students  Note: Craticities are presented for all narticipating institutions.		Choices included: (1) "Self-CADE," abstraction by the staff of the participating institution and	"Self-CADE	," abstraction	on by the st	aff of the p	articipating	institution a	and (2) "fiel	(2) "field-CADE,"

,

note. Stansucs are presented for an parterparting insutations. Choices interaction of the stanton of the field cape and 5 changed to self-CADE. abstraction by contractor field interviewers. A total of 199 institutions changed choices during CADE operations, 194 changed to field cape and 5 changed to self-CADE. All percentages are based on the sample size for the row under consideration.

<sup>a</sup>Institution classification for this table was verified by the participating institutions.

<sup>b</sup>This choice was made by the institutional coordinator or chief administrator prior to any attempts at record abstraction.

Included in this category are eight institutions that provided photocopies of applicable institutional records to the NPSAS:96 contractor; these records were than entered into Final method is the procedure through which record abstraction was completed at the institution; the initial method may have been used to collect some data. CADE by contractor central staff.



## 4.3.5 Timeliness of Record Abstraction

CADE systems were prepared on an institution-by-institution basis. The first CADE systems were shipped to self-CADE institutions in early March of 1996 and CADE systems continued to be sent to the field until early September, when the final sampling and CPS-matching were completed. Although the CADE data collection was more than 90 percent complete by the end of August, the remaining CADE systems that were ultimately received arrived between September 1 and December 12, 1996. All but eight of the outstanding CADE systems were received before the end of October; the eight were returned in early December. Figures 4.2 and 4.3 summarize the overall flow of completed CADE abstractions at the institutional and student levels, respectively.

An indication of the duration of CADE activities, in days, by type of institution is provided in **Table 4.12**. The proxy measure used for time of abstracting is the number of calendar days between the date on which the CADE system for a institution was initialized at the main campus of the contractor and the date on which the completed and returned CADE data file was successfully read and loaded onto the master CADE data set at the contractor's main campus. This measure is a relatively good index for self-CADE institutions, for which the CADE package was typically sent to the institution within the week it was initialized. For field-CADE institutions, however, the measure typically represents a major overestimation of time needed, since most institutional CADE packages were sent to the field abstractors well in advance of their visit to the involved institution. The table provides minimum days, maximum days, and median days of CADE duration in total and for different institution characteristics.

Considerable variation was experienced in CADE duration (from 5 days to 222 days, as is shown in the table). The median number of days to complete CADE was about seven weeks (50 days). Considering both median and maximum statistics, duration was greatest at 4-year institutions not offering doctorate and first-professional programs and least at private, for-profit institutions offering only programs of less than two years. While size of institution is positively related to duration of the CADE effort, the relationship with sample size is restricted to differences of 5 percentage points or less. Major differences (over 20 percentage points) in median CADE duration are associated with method of abstraction. Even though the duration measurement overestimates field-CADE duration (see above), duration was still lowest among institutions choosing this method initially and staying with that choice. Also, for institutions that started with self-CADE and subsequently decided that field-CADE was preferable, the duration statistics are comparable to those for institutions completing under self-CADE.

<sup>11</sup> Of the 792 institutions that ultimately provided data for at least one CADE respondent, 725 (91.5 percent) had returned the CADE system on or before August 31, 1996. Of the 55,665 cases ultimately determined to be CADE respondents, 51,444 (92.4 percent) were received at RTI on or before August 31, 1996.



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Figure 4.2. Cumulative Institutional Flow of CADE

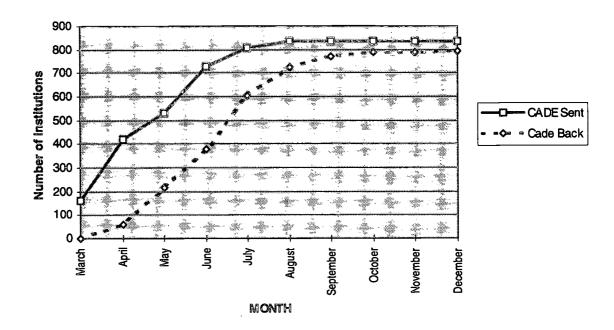
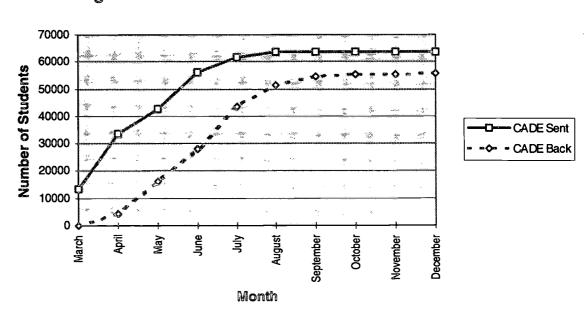


Figure 4.3. Cumulative Student Flow of CADE





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Table 4.12—CADE duration statistics by institution type

,		;		CADE	duration in	ı days <sup>a</sup>
Type of institution			Total participating institutions <sup>b</sup>	Minimum	Median	Maximum
Total			804	5	50	222
Institutional level	١			<del></del>	<del> </del>	222
Less-than-2-year		4	93	5	35	150
2-year			229	7	49	152
4-year non-doctorate-granting		. 4	237	8	56	222
4-year doctorate/first-professional			245	7	56	217
Institutional control	4800	* 1		<del></del>	31	201
Public	4					
Private, not for profit		**	424	7	51	222
Private, for profit	200		261	8	50	202
Institutional sector			119	5	39	152
	100	* 4				
Public, less than 2-year			31	11	48	143
Public, 2-year	100		. 155	8	50	222
Public, 4-year non-doctorate-granting			117	10	53	217
Public, 4-year doctorate/first-professional	* 1		121	7	53	201
Private, not-for-profit, 2-year or Less	y		38	13	40	183
Private, not-for-profit, 4-year non-doctorate-gran	ting	1	100	8	57	202
Private, not-for-profit, 4-year doctorate-granting	Se.	4	123	11	50	154
Private, for-profit, less-than-2-year			56	5	33	152
Private, for-profit, 2-year or more		*	63	7	52	144
Abstraction method						
* Self-CADE			455	8	54	201
Always field-CADE <sup>c</sup>	- 1960		161	5	31	167
Eventually field-CADE		^*.	188	7	55	222
School size		Z <sub>q</sub>		<del></del>		
1,500 or fewer students			117	5	40	200
1,501 to 14,999 students	· Pro		394	10	40	202
15,000 or more students			233	7	51 53	217
Sample size				<del></del> -		222
55 or fewer students	180		274	آ ہ	, ,	
56 to 85 students		l	274	5	48	222
86 or more students	\$ . r 5 . r		280	9	53	217
	<del></del>		250	7	49	201

Note: Statistics are based on the 804 institutions returning CADE data.

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<sup>&</sup>quot;The duration of CADE data abstraction for a given institution is defined as the number of calendar days between the date the CADE system was initialized at the contractor's main campus and the date the completed CADE data file was returned and

successfully read and loaded into the master CADE data set at the contractor's main office.

The count of participating institutions includes twelve institutions that provided only a minimal amount of data, thus resulting in no completed CADE cases from these institutions.

Because appointment dates were established for field-CADE institutions, the CADE system was sometimes initialized well in advance of the CADE appointment data; consequently, the upper values of these duration statistics considerably overestimate the actual abstracting period.

The "Eventually field-CADE" category represents institutions initially indicating a willingness to perform the data abstraction and subsequently requesting a field data collector.

## 4.4 Individual Tracing and Interviewing

## 4.4.1 CATI External Tracing and Locating Operations

The NPSAS:96 data collection included several tracing procedures as well as the use of a modified "locating" module in the CATI system, which allowed greater flexibility in recording (and subsequently reviewing) tracing history for a given case. In addition, a subcontractor (FastData) was used to provide directory assistance database matches, and tracing procedures were also established to use a subcontractor (EQUIFAX) to assist in intensive locating of cases that could not be traced through more routine tracing approaches.<sup>12</sup>

Prior experience of the contractor demonstrated the potential cost effectiveness of utilizing a "data base search" approach for obtaining directory assistance. This approach was implemented for NPSAS. Rather than having telephone interviewers call directory assistance when available telephone numbers for a case had been exhausted, the case was automatically labeled as needing directory assistance lookup. These cases, stored in a standard format within a computer file, were regularly shipped as a batch to FastData. For a minor cost per "hit", FastData returned the cases the following morning with up to six new phone numbers.

Of the 51,195 students that were sampled for NPSAS CATI, 9,689 required FastData services at least once. For 5,053 (over half) of these case, no additional information was found; however, at least one new phone number was obtained for the remaining 4,636 cases (48 percent), and for 2,109 of these (22 percent of the total), two or more phone numbers were returned from FastData.

A total of 6,884 cases received intensive tracing effort. While EQUIFAX was the primary mechanism by which intensive tracing was implemented, a portion of the CATI cases were also worked by a staff of specialized in-house tracers within the contractor telephone survey facility-5,002 of the intensive tracing were submitted to EQUIFAX, 1,192 were turned over to in-house tracers, and 690 cases were submitted to both EQUIFAX and the in-house tracing team.

<sup>12</sup>CATI locating efforts are typically categorized as either "routine" or "intensive". Routine tracing efforts generally include calling all known phone numbers for the respondent, and contacting directory assistance to obtain additional phone numbers which may reach a subject. Intensive tracing efforts, such as performing data base searches and employing field staff to contact friends and neighbors, are more expensive due to their labor-intensive nature. An optimal tracing and locating strategy generally involves a sequential combination of routine followed by intensive tracing efforts.



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Table 4.13 shows the breakdown of intensive tracing cases by institution and student characteristics. Because these tracing efforts were focused to a large extent on cases sampled as potential FTBs<sup>13</sup>, an artifactual difference in tracing requirements is shown between undergraduate students and graduate and first-professional students. Consistent with results from prior NPSAS implementations, a relatively higher proportion of students from private, for-profit institutions required intensive tracing. This reflects the overwhelming percentage of undergraduate students within these institutions, but also reflects the previously demonstrated greater mobility among such students.

Of the 5,692 cases referred to EQUIFAX, new phone and address information was returned for 2,494 (44 percent) and address-only information for another 1,156 (20 percent). Ultimately, 2,406 (42 percent) of the intensive trace cases were successfully located and interviews were completed with 1,712 (71 percent) of those located.

Results were comparable for the 1,882 cases referred to the contractor's in-house tracing team (including the 690 cases that were also submitted to EQUIFAX); 880 (47 percent) were successfully located and interviews were completed with 579 (66 percent) of the located cases.

## 4.4.2 CATI Tracing/Interviewing

A separate CATI input file for students selected for Phase 1 interviewing was prepared for each institution, containing student-level and institution-level data values used to customize the flow and appearance of the CATI interview. This file included preloaded data from completed CADE records. The first CATI input files (for 1,320 students) were created and loaded on May 6, 1996; an additional 3,423 cases were loaded the following day. Loading of data into the CATI system continued on a flow bases until the final set of CATI input files were loaded on October 26, 1996. A total of 51,195 cases were selected for student CATI and loaded into the system, although a portion of these cases were not selected for Phase 2 interviewing. CATI data collection continued for 35 weeks, ending on December 31, 1996, yielding 31,328 full or partial interviews. The duration of the CATI survey was principally attributable to delays in receiving institution enrollment lists, which in turn delayed the CPS matching and CADE data collection and, thus the flow of cases from CADE to CATI.



<sup>&</sup>lt;sup>13</sup>This was partially due to the two-stage, sampling approach for locating/interviewing (see Chapter 2).



Table 4.13—Percentage of students requiring intensive tracing procedures

	Students sampled	Cases receivin tracing e	
	for CATI	Number	Percent
Total	51,195	6,884	13.4
Institutional level			
Less-than-2-year	4,233	1,027	24.3
2-year	10,992	1,940	17.6
4-year non-doctorate-granting	15,783	1,829	11.6
4-year doctorate-granting	20,187	2,088	10.3
Institutional control			
Public	28,422	3,600	12.7
Private, not-for-profit	16,893	1,973	11.7
Private, for-profit	5,880	1,311	22.3
Institutional sector			
Public, less-than-2-year	1,131	205	18.1
Public, 2-year	6,872	1,148	16.7
Public, 4-year non-doctorate-granting	8,703	997	11.5
Public, 4-year doctorate-granting	11,716	1,250	10.7
Private, not-for-profit, 2-year or Less	2,295	444	19.3
Private, not for-profit, 4-year non-doctorate-			
granting	6,158	692	11.2
Private, not-for-profit, 4-year doctorate-granting	8,440	837	9.9
Private, for-profit, less than 2-year	2,697	733	27.2
Private, for-profit, 2-year or more	3,183	578	18.2
Student type <sup>a</sup>			
Undergraduate	43,872	6,412	14.6
Potential FTBs <sup>b</sup>	20,555	4,615	22.5
Graduate	4,956	345	7.0
First-professional	2,367	127	5.4

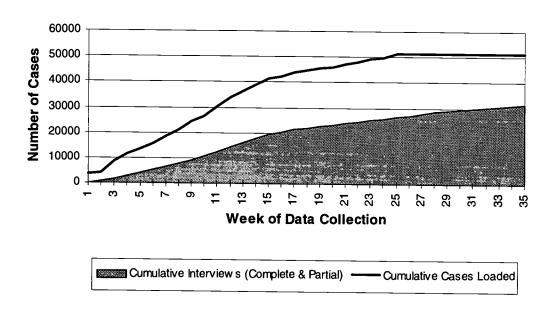
<sup>&</sup>lt;sup>a</sup> Student type definition is based on the student's last term of enrollment at the NPSAS institution during the NPSAS year.



b "Potential FTBs" are those students who were classified as such following CADE and prior to CATI. This group is not mutually exclusive of other student type categories.

Figure 4.4 depicts the cumulative nature, over time, of loading cases into CATI and of completing interviews. As is typical for most CATI surveys, the interview completion rate decreases (i.e., the slope of the cumulative line flattens) during the later portions of the study.

Figure 4.4 Cumulative cases loaded and completed by week of NPSAS:96 CATI data collection



This phenomenon results from the inevitable accumulation of refusal and unable-to-locate cases throughout the study. The approximately nine-week lag between the point at which the last cases were loaded into CATI and the end of data collection is not atypical.

## 4.4.3 Length of Interview

The time needed to conduct a student interview is shown, by interview section and student type, in **Table 4.14.** The administrative timing statistics were computed from time stamps imbedded in the CATI instrument. To use the most timing data available, results were computed for all cases that completed each of the separate sections of the interview and the section times were then aggregated to obtain total administrative time. Sections are listed in the table in the order in which they were presented. The bulk of the differences in numbers of cases contributing to the timing results over sections reflects "break-off" interviews (which may have occurred with or without a scheduled call-back to complete the interview).

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## Table 4.14—Average minutes to complete NPSAS:96 student telephone interview by section and student type

					Student type	type			
Section		All students	dents	FTB students only	ents only	Other undergraduate students	Other lergraduate students	Graduate/first- professional students	teffirst- sional ents
		Number	Minutes	Number	Minutes	Number	Minutes	Number	Minutes
Total		+-	26.2	+-	29.4	+	23.5	+-	21.5
Section A: school enrollment	2	28,270	5.7	10,915	4.6	13,609	6.4	3,746	7.0
Section B: educational expenses		27,926	2.2	10,720	2.8	13,488	2.0	3,718	1.6
Section C: sources of support	2	27,724	2.3	10,626	2.7	13,399	2.2	3,699	2.0
Section D: financial aid		27,736	1.5	10,673	0.9	13,375	1.8	3,688	2.2
Section E: employment	3	27,144	3.6	10,465	3.6	13,094	3.8	3,585	3.3
Section F: financial status	(1	27,278	2.3	10,458	2.1	13,170	2.4	3,650	2.4
Section G: student demographics		27,482	1.5	10,548	1.4	13,254	1.6	3,680	1.6
Section H: parental characteristics	3	27,270	2.1	10,426	2.7	13,176	2.0	3,688	1.1
Section I: educational experiences	1	18,823	3.3	10,332	5.0	8,334	1.0	+-	+-
Section J: locating information	3	25,500	1.7	10,463	3.6	11,828	0.3	3,209	0.3

NOTE: Section times are based on the number of respondents completing each section, excluding those who completed an abbreviated interview. \* Student classifications reflect status as verified in CADE and CATI.

Protal is computed as the sum of individual section times.

This section was only administered to FTBs and first and second year undergraduates.

†Not applicable.

Average administration time to complete the student interview was 26.2 minutes for all students. Administration time varied by student type with the BPS cohort members (i.e., verified FTBs) requiring 29.4 minutes on average, and other undergraduates and graduate/first-professional students requiring 23.5 minutes and 21.5 minutes, respectively. The additional time required for the BPS cohort is principally attributable to Section I (which was only completely administered to FTBs and partially to other first and second year undergraduate students) and the time required to obtain the much more comprehensive Section J locating information for the longitudinal study sample. Other differences in administration time among the student groups are relatively small.

Average administration times for the full scale interviews were considerably lower, across all student types, than were those for the field test versions of the interviews. This reflects both a shortening of the instrument and improvements in full-scale interviewer training procedures. Interview administration time, however, reflects only a small fraction of the time required to obtain a completed interview. Additional time is spent by interviewers in locating sample members, scheduling call-backs, attempting refusal conversion, and other related activities. This time is spent not only on cases that are ultimately interviewed but also on cases for whom no interviews are obtained. The average locator/interviewer time requirement for each completed interview is estimated to be about 2.0 hours.

Administration time for the parent interview is shown in **Table 4.15.** On average, a complete parent interview lasted about 12 minutes.

Table 4.15—Average minutes to complete the NPSAS:96 parent telephone interview, by section

Section		Number of parents	Minutes
Total <sup>a</sup>		†	12.2
Section L:	financial support for education	3,351	5.0
Section M:	household school enrollment	3,333	1.1
Section N:	employment status and financial condition	3,312	4.1
Section Q:	reasons for not seeking financial aid	3,297	1.2
Section P:	parent demographics	2,384	0.8

NOTE:

Section times are based on the number of respondents completing each section, excluding those with contaminated time stamps.

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<sup>&</sup>lt;sup>a</sup>Total is computed as the sum of individual section times.

<sup>†</sup>Not applicable.

## 4.4.4 Number and Result of Calls Made to Sample Members

As indicated in the previous section, a large effort was devoted to locating, contacting, and recontacting sample members. In fact, the large majority of interviewer time was spent in activities other than actually administering the student or parent interview. A small portion of this other time was required to bring up a case, review its history, and close the case (with appropriate comment) when completed. The vast majority of the other time was devoted to contacting (or attempting to contact) the sample members. **Table 4.16** shows the total number of telephone calls made to sample members and the outcome of these calls. Calls resulting in voice mail or answering machines are broken out separately in this table, since this type of "noncontact" is by far the most frequent and has both cost and procedural implications for future surveys with similar populations.

As shown in Table 4.16, the average number of calls made to all sample members was about 12 (although not shown in the table, this was also the average number of calls made to sample members who completed the interview). Locating calls typically represent about two-thirds of the total calls. About one-third of all calls resulted in reaching someone, one-third resulted in contact with voice mail or answering machines, and one-third resulted in some other type of non-contact (e.g., busy signal, no answer, non-working number). On average, graduate and first-professional students required fewer calls than did undergraduate students. On the other hand, calls to graduate and first-professional students were much more likely to have contacted voice mail or answering machines than were calls placed to undergraduate students. This finding is consistent with the relatively smaller percentages of answering machine calls among students from 2-year and less than 2-year institutions than among students at 4-year institutions.

## 4.5 Identifying First Time Beginning Students (FTBs)

The NPSAS:96 study serves as the base year of a longitudinal study of students beginning their postsecondary education experience during one of the terms of the NPSAS sample year. Those determined to be such "First Time Beginners" (FTBs) will be followed at periodic intervals as part of the Beginning Postsecondary Students follow-up surveys (BPS:96), with the data collected during NPSAS:96 serving as the base year for the subsequent longitudinal studies.

NPSAS:96 is the second NPSAS to "spin off" a cohort of beginning students; NPSAS:90 was the first. Based on our experiences in the NPSAS:96 field test, RTI implemented sampling and screening procedures which were targeted to yield an adequate number of students that are accurately identified as FTBs for the BPS:96 longitudinal study. Procedures specific to this purpose were implemented at almost every step of full-scale study operations (e.g., detailed instructions for enrollment list requests; sample selection procedures; wording of CADE items asked specifically about potential FTBs; comprehensive BPS-eligibility questions in the student CATI instrument to make the final FTB determination; and extra locating/ interviewing efforts applied to the sample from the student stratum of potential FTBs). Because FTB determination rates were not available from the NPSAS:90/BPS:90 sampling process, FTB sampling rates were based primarily on NPSAS:96 field test results combined with expected improvements based on those results and BPS:92/94 experience. The two major challenges in achieving adequate FTB yields are: (1) proper identification of a sufficient asset from which to obtain FTBs and (2) locating, identifying, and interviewing FTBs from that base in sufficient numbers.

# Table 4.16—Number and result of calls made to sample members by type of institution and type of student

						Ω	idn't rea	Didn't reach anyone	
						Answering	ring		
Category	CA LI Sample cases	lotal calls to sample cases	Calls per	Number   Percent	Percent	Number   Percent	Percent	Number Percent	ercent
Total	51,195		12.2	223,249	35.8	197,872	31.7	202,215	32.4
Institutional level									
Less than 2-year	4,233	57,469	13.6	20,682	36.0	15,332	26.7	21,455	37.3
2-year	10,992	139,845	12.7	51,453	36.8	42,427	30.3	45,965	32.9
4-year, non-doctorate-granting	15,783	180,854	11.5	65,656	36.3	55,893	30.9	59,305	32.8
4-year, doctorate-granting	20	245,168	12.1	85,458	34.9	84,220	34.4	75,490	30.8
		,							
Public Comments of the Comment		342,528	12.1	123,762	36.1	108,620	31.7	110,146	32.2
	16,893	198,186	11.7	70,258	35.5	62,389	33.0	62,539	31.6
Private, for-profit	5,880	82,622	14.1	29,229	35.4	23,863	28.9	29,530	35.7
Institutional sector									
Public, less than 2-year	1,131	12,728	11.3	4,715	37.0	3,493	27.4	4,520	35.5
Public, 2-year	6,872	84,242	12.3	31,449	37.3	25,961	30.8	26,832	31.9
Public, 4-year, non-doctorate-granting	8,703	101,933	11.7	37,496	36.8	31,002	30.4	33,435	32.8
Public, 4-year, doctorate-granting	11,716	143,625	12.3	50,102	34.9	48,164	33.5	45,359	31.6
	2,295	28,800	12.5	10,414	36.2	8,535	29.6	9,851	34.2
Private, 4-year, non-doctorate-granting	6,158	68,174	11.1	24,586	36.1	20,975	30.8	22,613	33.2
Private, not-for-profit, 4-year, doctorate-granting	8,440	101,212	12.0	35,258	34.8	35,879	35.4	30,075	29.7
Private, for-profit, less-than-2-year	2,697	40,423	15.0	14,375	35.6	10,768	26.6	15,280	37.8
Private, for-profit, 2-year or more	3,183	42,199	13.3	14,854	35.2	13,095	31.0	14,250	33.8
Student type.					_				
Undergraduate	43,872	556,235	12.7	201,271	36.2	170,412	30.6	184,552	33.2
Graduate	4,956	43,969	8.9	14,509	33.0	17,614	40.1	11,846	26.9
First-professional	2,367	23,132	9.8	7,469	32.3	9,846	42.6	5,817	25.1

Statistics based on 51,195 cases loaded and worked in CATI, and restricted to calls made within the CATI facility. Percentages are based on total calls for row under consideration. Note:

Total calls and calls per case are biased downward because of the two-phase CATI sampling design, which sampled out some cases after a maximum of

phase one calls.

\*\*Student type is based on student's status during the last term of enrollment at the NPSAS institution.





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The previously agreed upon definition of a pure FTB is: one who enrolled in postsecondary education for the first time after high school during the NPSAS year. This definition was refined for the NPSAS:96 full-scale study to include those who had previously enrolled but who had not completed a postsecondary course for credit prior to July 1 1995 (effective FTBs). This expanded definition shifts the requirement from the act of enrollment to successful completion of a postsecondary course.

#### 4.5.1 Sequential Procedures for Screening FTBs

Locating and interviewing potential FTBs is particularly important, since final FTB determination rests on student responses to specific questions. <sup>14</sup> Student records maintained at most postsecondary institutions do not contain all information necessary to make accurate FTB determinations. Insufficiency of institution-level information is quite obvious when considering students who move from one sector of postsecondary education to another (e.g., from a certificate-granting technical institution to a degree-granting academic institution, or *vice versa*), and who, consequently, bring no transfer credits (or other records of such prior education) with them to the new postsecondary environment.

Nonetheless, institutions can identify FTBs stochastically; however, instructions to institutions regarding preliminary identification of potential FTBs must also be sufficiently clear and viable that the institution can implement them correctly. Sampling procedures implemented during NPSAS:96 accounted for potential definitional difficulties in a number of ways. As a first screening, institutions were asked to identify potential FTBs, using as criteria that such students be:

- undergraduate students,
- having a *first* enrollment at the institution *in a term starting during the NPSAS:96* year (between May 1, 1995 and April 30, 1996),
- classified by the institution as *freshman*, or *first-year student* at the time of that first enrollment, and
- who had no transfer credits from another postsecondary institution.

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<sup>&</sup>lt;sup>14</sup>A number of questions were contained in the student interview to screen for FTB status, including: when the student first attended a postsecondary institution; whether the student received any prior postsecondary degrees or certificates; and whether and when the student completed the first class toward a postsecondary degree or certificate after high school at a postsecondary institution.

<sup>&</sup>lt;sup>15</sup>Simply asking the institution to identify students who enrolled in the institution for the first time is insufficient, since it can result in identification of undergraduate transfer students as well as first-time enrolling graduate and first-professional students.

Based on prior experience, it was anticipated that two types of errors would still exist in lists provided by the schools; specifically, (1) students listed as potential FTBs would not be actual FTBs (a false positive group) and (2) students not identified as potential FTBs would, in fact, prove to be FTBs (a false negative group). The actual BPS:96 cohort would thus consist of those in the potential FTB group *minus* the identified false positives in that group *plus* any false negatives identified in other student strata. Because experience with BPS:90 indicated that the false positive rate would exceed (considerably) the false negative rate, the potential FTB stratum was considerably oversampled (see Chapter 2).

A second stage of screening for FTB status occurred during record abstraction. Students who were classified as undergraduates at the conclusion of CADE were identified as potential FTBs for CATI subsampling if: the student graduated from high school in 1995 or 1996; the CPS year-in-school variable indicated that the student was an FTB; or high school graduation year and CPS year-in-school variables were missing, but the student was born in 1977 or later. Potential FTBs whose CADE data did not contradict the sampling list requirements (first-year students attending the NPSAS institution for the first time during the sample year, not transferring credits in) continued to be treated as potential FTBs for CATI subsampling. Other students were classified as "probable non-FTBs." Classification at this stage was particularly important since potential FTBs were selected for CATI with certainty whereas subsampling occurred for other student strata (see Chapter 2).

The final (CATI interview) FTB screening, was accomplished very early in the interview (immediately following NPSAS study eligibility determination).<sup>17</sup> The FTB screening questions were asked of all interviewed students so that not only would false positives from the potential FTB stratum be eliminated from the BPS cohort but also false negatives from the other student strata would be identified and included in the BPS:96 cohort.

## 4.5.2 Basic Results for Establishing the BPS:96 Cohort

As mentioned above, FTB determination was a three-stage process, including information gathered during: list acquisition; CADE data collection; and then CATI data collection. **Table 4.17** provides results of CATI-based FTB determination based on student classification. Overall, 39 percent of the students interviewed (12,207 students) were determined to be FTBs. Among those initially sampled as potential FTBs based on the list acquisition process, 72.4 percent of those subsequently interviewed were determined to be FTBs, yielding a 27.6 percent false positive rate. The false negative rate was 29.3 percent for the students for whom FTB-likelihood was not established by the institution, 9.1 percent for those identified as non-FTB undergraduates and 0.2 percent or less for those sampled as graduates or first-professionals.

<sup>&</sup>lt;sup>17</sup>FTB status was determined at the start of the student CATI interview, since many subsequent questions were to be asked only of the *actual BPS* cohort.



<sup>&</sup>lt;sup>16</sup>This indicator was temporary, since final FTB determination was not made until the student CATI interview.

The reasonably low false-negative rate results highlight the fact that, in general, schools were fairly successful in identifying students who were not likely to be FTBs. On the other hand, the high false positive rate revealed the difficulties that many schools experienced in accurately identifying FTBs.

Table 4.17 also displays the confirmed FTB rates based on the student re-classifications done subsequent to CADE and prior to CATI. The false positive rate reduced to 21.8 percent for potential FTBs among those interviewed. The false negative rate for other students was much lower as well: 4.3 percent for other undergraduate students, 0.1 percent for graduate students, and 0.0 percent for first-professional students. This second sampling stage was quite effective in reducing both the false negative rate and the false positive rate; however, the false positive rate was higher than anticipated. Institutions, in many cases, did not have the necessary information to be able to classify FTBs correctly.

Table 4.17—FTB determination by student classification

	Students	Known FTBs		
Student classification	interviewed	Number	Percent	
Total	31,328	12,207	39.0	
List sampling stratum				
Potential FTBs	15,106	10,932	72.4	
Undifferentiated undergraduates	785	230	29.3	
Other undergraduates	11,436	1,039	9.1	
Graduates	1,263	3	0.2	
First-professionals	2,738	3	0.1	
Post-CADE classification	3			
Potential FTBs	14,936	11,677	78.2	
Other undergraduates	12,357	526	4.3	
Graduates	2,835	4	0.1	
First-professionals	1,200	0	0.0	

Tables 4.18 and 4.19 show that the difficulty in identification of FTBs was markedly different for the various types of institutions. Table 4.18 reflects the results for those initially sampled as potential FTBs during list-sampling (incorrect classifications may be considered false positives) and Table 4.19 provides the results for students not sampled as potential FTBs (incorrect classifications may be considered false negatives). The 4-year institutions did much better than the less-than-4-year institutions in identifying potential FTBs. The FTB rate for potential FTBs at 4-year schools was more than 80 percent whereas it was less than 55 percent at other schools. Similarly, the false negative rate was much lower for 4-year schools. Private, forprofit schools had much higher false positive (only 55.3 percent confirmed FTBs among potential FTBs) and false negative (18.9 percent) rates than other institutions.



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In viewing the results by institutional sector, some dramatic disparities are evident. The most successful sector in determining FTBs accurately was that of the public, 4-year, doctoral-granting institutions, where 90.9 percent of the potential FTBs were confirmed as such in CATI, and only 5.3 percent of those in other student strata were determined in CATI to be FTBs. Each of the 4-year sectors had false positive rates below 20 percent and false negative rates below 7 percent. All of the less-than-4-year sectors had false positive rates in excess of 43 percent and false negative rates above 10 percent. In particular, private-for-profit less than two year schools had a false positive rate of 43.8 percent and a false negative rate of 48.7 percent. Two other sectors (public, less-than-2-year; private, not-for-profit, 2-year or less) had false positive rates in excess of 50 percent.

Table 4.18—FTB determination for those identified by NPSAS institution as potential FTBs, by institution type

	Students	Known FTBs	
Type of institution	interviewed	Number	Percent
Institutional level			
Less-than-2-year	2,020	1,056	52.3
2-year	3,935	2,140	54.4
4-year-non-doctorate-granting	4,519	3,666	81.1
4-year-doctorate-granting	4,632	4,070	87.9
Institutional control			
Public	8,299	6,305	76.0
Private, not-for-profit	4,343	3,265	75.2
Private, for-profit	2,464	1,362	55.3
Institutional sector			
Public, less-than-2-year	484	210	43.4
Public, 2-year	2,390	1,337	55.9
Public, 4-year, non-doctorate	2,599	2,190	84.3
Public, 4-year, doctorate	2,826	2,568	90.9
Private, not-for-profit, 2-year or less	822	376	45.7
Private, not-for-profit, 4-year, non-doctorate-granting	1,715	1,387	80.9
Private, not-for-profit, 4-year, doctorate-granting	1,806	1,502	83.2
Private, for-profit, less-than-2-year	1,446	812	56.2
Private, for-profit, 2-year or more	1,018	550	54.0

The inability of less-than-4-year institutions to identify FTBs, despite careful and comprehensive instructions provided to them, reflects the fact that these schools often do not have necessary information to make this determination. In many cases, students attend multiple schools without transferring credits from one institution to the next one. So, institutions would not know about such prior postsecondary experience. Four-year schools, on the other hand, have more information about prior institution attendance and student level, in general. If future BPS cohorts are planned, the NPSAS:96 experience will provide very good information for sampling potential FTBs in future NPSAS base year samples. For instance, it serves little purpose to ask less-than-2-year for-profit schools to attempt to identify separately their FTBs since both their false positive and false negative rates are around 50 percent. List acquisition procedures and sampling procedures may be refined to account for the disparate rates of actual FTBs across the various institutional sectors.

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Table 4.19—FTB determination for those not identified by NPSAS institution as potential FTBs, by institution type

	Students	Known	FTBs
Type of institution	interviewed	Number	Percent
Institutional level			
Less-than-2-year	401	129	32.2
2-year	2,524	344	13.6
4-year, non-doctorate-granting	5,630	345	6.1
4-year, doctorate-granting	7,667	457	6.0
Institutional control			
Public	9,147	672	7.3
Private, not-for-profit	6,011	402	6.7
Private, for-profit	1,064	201	18.9
Institutional sector		ļ	
Public, less-than-2-year	126	29	23.0
Public, 2-year	1,564	204	13.0
Public, 4-year, non-doctorate-granting	3,008	204	6.8
Public, 4-year, doctorate-for-profit	4,449	235	5.3
Private, not for-profit, less-than-2-year	513	55	10.7
Private, not-for-profit, 4-year, non-doctorate granting	2,303	125	5.4
Private, not-for-profit, 4-year, doctorate-granting	3,195	222	6.9
Private, for-profit, less-than-2-year	195	95	48.7
Private, for-profit, 2-year or more	869	106	12.2

#### 4.5.3 Types of First Time Beginners

As mentioned above, FTBs included those identified as pure (began postsecondary education for the first time during the NPSAS sample year) or effective (had not completed a postsecondary class prior to NPSAS sample year). In addition, a number of FTBs were identified as being FTBs, but attending another institution during the NPSAS sample year prior to attending the NPSAS institution. For instance, a student may have attended one institution during the summer of 1995 and then another institution beginning with the fall of 1995. Such students that were sampled at the second institution were appropriately treated during the NPSAS interview as FTBs. Institutional records, though, were only collected for the NPSAS sample institution, and not for the first institution.

Table 4.20 presents a distribution of FTBs by FTB type and whether or not the student was a FTB at the NPSAS institution. More than 95 percent of the known FTBs were pure FTBs who attended their NPSAS institution first. Nearly 99 percent of the students determined to be FTBs were pure or effective FTBs at the NPSAS institution. About 97 percent of the known FTBs were pure FTBs. For the BPS:96 cohort, all of the pure or effective FTBs who attended the NPSAS institution first will be included in the sample as NPSAS respondents known to be BPS-eligible (12,040 FTBs).

Table 4.20—Known FTBs by type of FTB and whether NPSAS institution was first institution attended

		Sumple 1	FTB	Туре		
	То	TO SECTION OF A SE	Pure	FTB	Effecti	ve FTB
First institution attended	Number	Percent	Number	Percenta	Number	Percenta
Total	12,207	100.0	11,802	96.7	405	3.3
NPSAS institution attended first	12,040	98.6	11,639	95.3	401	3.3
Other institution attended first	167	1.4	163	1.3	4	0.0

<sup>&</sup>lt;sup>a</sup>Of total known FTBs.

## 4.6 Quality and Completeness of NPSAS:96 Data

## 4.6.1 CATI Quality Control Monitoring

Monitoring CATI data collection in progress serves the dual purpose of (1) providing information about the overall level of error in the facility to ensure that the interviewing process remains in statistical control (and to keep overall error within acceptable limits), and (2) improving interviewer performance by reinforcing good interviewer behavior and discouraging poor behavior. The data reported in this section reflect the monitoring conducted during the NPSAS:96 data collection using the RTI telephone monitoring system. The system provides for sampling of interviewers and interview items during CATI operations. Monitors listen to sampled interviews and observe the data collection using remote monitoring telephone and computer equipment and software. They record their observations on laptop computers which contain computerized monitoring forms.

During the NPSAS:96 training sessions for interviewers and supervisors, selected staff received training on the monitoring system. Interviewers were informed of what types of interviewer behavior would be allowed and what types must be avoided. Supervisors, who served as monitors, were instructed on how to identify proper and improper interviewer behavior and how to record their observations on the laptop computers. In addition, all staff were told the purpose of the monitoring data and how the data were to be reported. Monitors were instructed to focus on two interviewer behaviors including:

- delivery of questionnaire text--to identify proper reading of the questionnaire text (verbatim) or appropriate modifications of the text based on prior statements made by the respondent, or improperly skipping over questions; and
- CATI entry--to identify correct recording of responses to interview questions.



Twenty monitors were responsible for quality control monitoring. They recorded a total of 102,000 observations during the data collection period. Monitoring data were collected during the first 28 weeks of data collection. Monitoring efforts were eliminated for the last seven weeks of data collection, given the greater experience of the remaining interviewers and satisfaction by project staff that the process was in appropriate control.

The monitoring results are presented in **Figures 4.5 and 4.6** for Question Delivery and Data Entry, respectively. Seven four-week periods of data collection are designated for each figure. On most studies, interviewers experience a *learning curve*, a short time at the beginning of their study efforts during which they are still developing their skills with a particular survey instrument and study procedures. This learning curve may not be clearly evidenced in these figures because the underlying data reflect attrition of some interviewers as well as the subsequent addition of new interviewers over time to accommodate that attrition.

4.0% 3.5% 3.0% 2.5% **Error Rate** 2.0% 1.5% 1.0% 0.5% 0.0% 12 16 20 24 28 Week - Low er Control Limit -Error Rate -

Figure 4.5. Monitoring error rates for CATI question delivery

Note: Upper and lower limits were computed at 12 weeks and 28 weeks, with new cumulation of results beginning at those points, since the monitored error rate exceeded existing control limits.



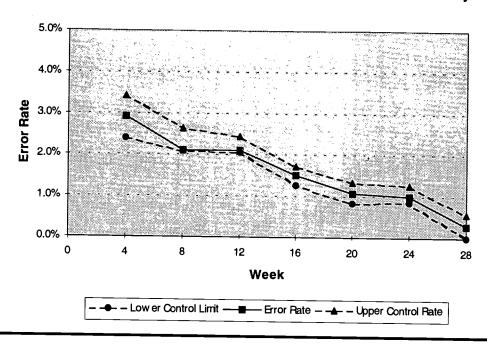


Figure 4.6. Monitoring error rates for CATI data entry

The facility-level data shown in the figures include the percentage of instances where a behavior was observed.<sup>18</sup> A deviation outside of the control limits is indicative of an unexpected behavior pattern. These deviations can be explained either by a change in the interviewing process, a change in the monitoring process, or a problem with interviewer performance. In the discussion below, we summarize the monitoring data for the two behaviors that were observed.

CATI Question Delivery. NPSAS telephone interviewers were trained to employ a conversational style interviewing approach, which is intended to reduce respondent burden and thereby enhance survey response rates. This approach requires "active listening" by the interviewer and appropriate use of information received from the sample member as part of, or in addition to, an answer to a question asked previously. For example: to the question "What is your marital status?", a person might say "I'm married and my wife and I have two daughters, ages eight and six." In this case the respondent has provided a lot of information, in addition to the simple answer to the question posed, and this additional information can and should be used appropriately in the rest of the interview. For example, it would be awkward and inappropriate to then ask this person: "Do you have any children?" and, if so, "How many of your children under age 21 live with you?" Rather, adapting a conversational interviewing approach, the interviewer might say: "You said you had two young children living at home, right?"

<sup>&</sup>lt;sup>18</sup>The upper and lower control limits were calculated as plus (for upper limit) and minus (for lower limit) three times the standard error associated with the cumulative proportion of errors to the number of questions observed for the given period. When operational changes were introduced into the system (e.g., major infusion of new interviewers), cumulative computation of limits was restarted.



Note, however, that the interviewer attempts to obtain responses to the current question by confirming information obtained in response to a prior question; however, this approach does not justify "skipping" questions that are applicable to the particular respondent.

Thus, given the conversational style interviewing approach used in NPSAS, the literal reading of the screen wording for each item, while acceptable, is not required for a question to be delivered correctly. However, any deviation from item wording that results in changing the intent of the question or obscuring the question meaning would constitute incorrect question delivery, as would skipping the question entirely. Figure 4.5 provides the monitored error rates, at four-week intervals, for CATI question delivery. As can be seen, errors of this type were quite low throughout the data collection period. The cumulative question delivery error rate, based on all observations across the 28-week monitoring period, was less than 2 percent.

CATI Entry. CATI entry error occurs when the response to a question is recorded incorrectly. The error rates of CATI entry are somewhat higher than might be expected for this study (Figure 4.6). This may be attributed to two factors. First, it is difficult for monitors to observe the recorded entries before the screen switches to the next question, so the error rates may be misreported. Second, CATI monitoring included all types of items and, therefore, some of the error reported is attributable to simple misspelling of open-ended (literal) responses by the interviewers. These behaviors were observed during the early stages of data collection and addressed both with the monitors and the interviewers. The effect of such retraining is reflected in Figure 4.6, which shows a consistent decline in data entry error rates over the data collection period. The facility average data entry error rate for the full data entry monitoring period was less than 2 percent.

### 4.6.2 CATI On-line Coding

The NPSAS CATI system included tools which allowed computer-assisted on-line assignment of codes to literal responses. On-line coding systems are designed to improve data quality by capitalizing on the availability of the respondent at the time the coding is performed. Interviewers can request clarification or additional information if a particular open-ended value or text string cannot be successfully coded on the first attempt, an advantage not afforded when coding occurs after the interview is complete. Because the literal string as well as code selected are both captured in the data file, subsequent quality control recoding by central office staff can be easily incorporated into data collection procedures. The on-line coding occurred in three substantive areas: postsecondary education institution, major field of study, and industry/occupation.

Institutional coding was needed to assign a six-digit Integrated Postsecondary Education Data System (IPEDS) identifier for institutions other than the sample institution that respondents reported attending during the 1995-96 year. The system relied on a look-up table, or coding dictionary, of institutions. The dictionary was constructed from the IPEDS institution database. Other information in the dictionary (institutional level of offering, institutional control, and annual undergraduate tuition information) was retrieved into CATI for later use (e.g., for branching or as prompts for certain questions), once the institution was identified and confirmed.

Major field of study coding and industry/occupation coding utilized a dictionary of word/code associations. The on-line procedures for these coding operations were the following:



(1) the interviewer keyed the verbatim text provided by the respondent; (2) standard descriptors associated with identified codes were displayed for the interviewer; and (3) the interviewer selected a listed standard descriptor.

Each coding operation was subjected to quality control monitoring. Although monitoring error rates were not maintained separately for the coding systems, they are reflected in the overall CATI monitoring error rates discussed above. In addition to the quality control monitoring, interviewers were routinely monitored specifically with regard to their performance in using the on-line coding software. Supervisors debriefed (and retrained when necessary) the interviewers based on this qualitative assessment. The coding systems also received prominent focus during the telephone interviewer quality circle meetings, with expert coders providing guidance regarding the appropriate coding of particularly difficult items. During these sessions, interviews were reminded to provide comprehensive information in the verbatim text, to facilitate any subsequent recoding.

Coding results were extracted and examined approximately every two weeks during data collection. The verbatim strings were evaluated for completeness, as well as for the appropriateness of the assigned codes. Approximately five to seven percent of the strings were recoded, although very few resulted in a shift across broad categories. Following each extraction/examination, the industry/occupation and major field of study coding dictionaries were expanded to include codes for descriptions collected in CATI interviews that were not previously represented in the dictionary. **Table 4-21** shows the results of the NPSAS on-line coding procedures.

Table 4.21—Success rates for CATI on-line coding procedures

Coding procedure	Total coding attempts <sup>a</sup>	Total coded successfully	Percent coded successfully
IPEDS	14,521	12,071	83.1
Major field of study	26,372	26,061	98.8
Industry	23,901	23,177	97.0
Occupation	66,029	63,420	96.0

The IPEDS, Industry, and Occupation coding could occur multiple times within any single interview. For example, occupation data was collected from students regarding their current jobs and career aspirations. Similarly, students were asked about up to four institutions (other than the sample institution) they attended during the NPSAS year, and were also asked about institutions from which they may have received a bachelors degree earlier in their academic career. All these entries were subjected to the IPEDS coding system.

As the table shows, interviewers experienced the most difficulty attempting to code institutions. The IPEDS coding system required the student to report the school name, as well as the city and state in which the school was located. An incorrect school name or city/state combination usually resulted in an unsuccessful coding of the institutions. Based on the relative completeness of the verbatim text available, 1,143 of the 2,450 unsuccessfully-coded cases were identified as candidates for post-data collection recoding and assigned to a team of expert coders. The team successfully coded 237 of the institutions, and another 737 institutions were in foreign countries (i.e. "uncodable" was a correct entry). This activity raised the IPEDS coding success rate to just under 90 percent.



#### 4.6.3 CATI Data Indeterminancies

A major goal of any survey is to minimize the amount of nonresponse to individual data elements as well as to entire survey instruments. For NPSAS:96, allowances were made in the CATI to accommodate responses of refusal and "don't know" to every item, by special keyed entry by the interviewers. Refusal responses to interview questions are most common for items considered sensitive by the respondent, while "don't know" responses may result from a number of potential circumstances. The most obvious reason a respondent will offer a "don't know" response is that the answer is truly unknown or in some way inappropriate for the respondent. But, "don't know" responses may also be evoked (1) when question wording is not understood by the respondent, without explanation by the interviewer; (2) when there is hesitancy on the part of the respondent to provide "best guess" responses, with insufficient prompting from the interviewer; and (3) as an implicit refusal to answer a question. Refusal and don't know responses introduce Indeterminancies in the data set and must be resolved by imputation or subsequently dealt with during analysis.

Overall item nonresponse rates in the student CATI were fairly low, with only 54 of the over 1,000 variables included in the final CATI data set containing over 10 percent missing data. These items are shown in **Table 4.22**, grouped by interview section. Item nonresponse rates are calculated only for those sample members for whom each item was applicable and asked.

Reliability, as examined here, involves the stability of responses over time (i.e., temporal consistency); consequently, analyses generally focus on data items that are expected to be stable for the time period between the initial interview and the reinterview (e.g., factual rather than attitudinal data). The design of the reinterview study called for reinterviews to be conducted within one month of the initial interview; allowing enough time for respondents to forget their previous answers but not enough time so that actual changes in status would make truthful answering produce different answers (which would be indistinguishable from unreliability). Unfortunately, time delays in conducting reinterviews may have contributed to the occurrence of real change (between the initial interview and reinterview) in the status of the information requested of respondents.<sup>19</sup>

<sup>&</sup>lt;sup>19</sup>The bulk of the initial interviews were conducted prior to the end of the financial aid year (June 30, 1996 or current institution year); however, a number of questions use such time points as the end of a stated reference period, introducing the potential for real change during the time between the initial interview and the referenced time point. Also, some reinterview respondents were contacted up to six months after completing the main interview (in some cases after they had begun another year of school) and for questions with unspecified reference periods, potential for change obviously exists.



Table 4.22— Student interview item non-response for items with more than 10 percent "don't know" or "refused"

		Number	Percent don't	Percent	Percent
Item	Item	asked	know	refused	combined
School enrollment		askeu	KUUW	refusea	non-response
SASMPGPA	Grade point average	3,925	15.0	0.2	150
SADROPMO	Month dropped out-first term	289	11.0	0.3	15.0
SAEXDGMN	Month degree is expected	18,987	11.0	0.0	11.0
Exams and expenses		10,707	11.0	0.0	
SBSAT_R	SAT reasoning score	1,311	98.0	0.5	00.0
SBSAT_V	SAT verbal score	1,407	74.0	0.5	98.0
SBSAT_M	SAT math score	1,403	74.0	0.6	74.0
SBGRE_A	GRE analytic score	1,101	67.0	0.5	74.0
SBGRE_V	GRE verbal score	1,106	65.0	1	68.0
SBGRE_M	GRE math score	1,103	65.0	0.6	66.0
SBACT_S	ACT score	435	30.0	0.5	66.0
SBAPIS	Score of AP test	2.418	21.0	0.5	30.0
SBAP2S	Score of AP test	1,299		0.2	21.0
SBTUIFEE	Tuition/fees at all schools	4,254	11.0	0.2	11.0
Sources of support	ii	4,234	9.9	0.3	10.0
SCSUPAMT	Dollar value of other support	12,540	26.0	0.5	
SCSUPEST	Estimated dollar value of other support	3,298		0.5	26.0
SCPRETYP	Type of prepayment plan used		14.0	0.4	14.0
SCALWAMT	Amount of allowance	1,320	13.0	0.2	13.0
Financial aid	Tunious of anowance	6,136	9.4	1.6	11.0
SDOAMT01	Amount of aid - other institution	651	10.0	0.4	
SDREIMBR	Check reimbursement amount	651 1,913	12.0	0.6	13.0
Employment	Sheek reimpursement amount	1,913	11.0	0.5	12.0
SECWSOFF	College work-study on/off-campus	0.50	12.0		
SECWSTYP	College work-study type of employer	858	13.0	2.6	15.0
SECOMSRV	College work-study	854	12.0	2.6	15.0
Financial status	conege work study	852	11.0	2.2	14.0
SFBUSVAL	Total worth of business	625	22.0		
SFFMVAL	Total worth of farm	635 134	32.0	11.0	43.0
SFBSVALE	Estimated value of business		25.0	6.7	31.0
SFTOT94	Total income for 1994	200	25.0	1.0	26.0
SFBSOWE	Amount owed on business	15,992	20.0	5.1	25.0
SFTOT95	Total income for 1995	631	16.0	7.6	24.0
SFCASH	Total cash/savings/checking	28,450	18.0	4.2	23.0
SFHMVALE	Estimated value of home	27,636	13.0	8.6	21.0
SFFMOWE	Amount owed on farm	392	19.0	1.5	21.0
SFCASHE	Cash/savings/checking over \$1K	134	15.0	6.0	21.0
SFRLEVAL	Total worth of real estate	3,543	19.0	1.7	20.0
SFHMOWE	Amount owed on home	491	13.0	7.1	20.0
SFHMVAL	Total worth of home	4,645	9.7	7.7	17.0
SFRLEOWE		4,653	8.5	7.0	16.0
JULIUS III	Amount owed on real estate	489	8.2	5.9	14.0

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Table 4.22—Student interview item non-response for items with more than 10 percent "don't know" or "refused (continued)

Item	Item	Number asked	Percent don't know	Percent refused	Percent combined non-response
Parental characteristics					,
	Estimated income 1994-more than				50.0
SHIN94M	\$30K	513	50.0	1.4	52.0
SHINC94	Parent income - 1994	9,234	43.0	8.7	51.0
SHINC95	Income 1995	18,127	43.0	6.5	50.0
SHINC294	Income 1994	420	43.0	6.9	50.0
SHIN94L	Estimated income 1994-less than \$30K	231	32.0	0.4	32.0
SHRNG295	Income range 1995	302	31.0	0.3	31.0
SHINC95E	Parent estimated income - 1995	7,911	28.0	1.2	29.0
SHRNG294	Income range 1994	252	25.0	0.0	25.0
	Estimated income 1995-more than			ļ	
SHINC95M	\$30K	4,002	22.0	1.9	24.0
SHINC94E	Income range 1994	5,938	22.0	0.2	22.0
SHINC95L	Estimated income 1995-less than \$30K	1,585	17.0	0.5	17.0
SHDADAS	Father earned associates degree	1,960	13.0	0.1	13.0
SHMOMAS	Mother earned associates degree	2,649	11.0	0.0	11.0
Educational experiences	-				
SIREADHR	Remedial hours - reading	841	16.0	0.0	16.0
SIWRITHR	Remedial hours - writing	955	15.0	0.1	16.0
SISTUDHR	Remedial hours - study skills	596	14.0	0.0	14.0
SIMATHIR	Remedial hours - math	1,427	13.0	0.0	13.0
SILANGHR	Remedial course - Eng. lang.	611	13.0_	0.0	13.0

Note: Statistics are based on student sample members for whom specific items were applicable and asked. Items applicable to less than 100 sample members were excluded from consideration.

Items with the largest amount of nonresponse were those pertaining to undergraduate and graduate entrance examination scores, with two-thirds or more of the students interviewed and reporting having taken the SAT or GRE unable to recall their scores on these exams. Questions most likely to evoke explicit refusals we concerning student and parent income, assets, and debt, which also provided high rates of "don't know." Many student respondents are reluctant to provide information about family finances and, among those who are not, many simply don't know.

## 4.6.4 Reliability of Interview Responses

The NPSAS:96 interview responses were also evaluated for reliability and validity, to estimate the consistency of the measurements. Reliability was assessed through reinterviews (see Section 3.5, above) using selected items of the full interview. Reinterviews were administered to a randomly selected subsample of those who completed the full interview; analyses were based on the 236 respondents to the reinterviews. The set of reinterview questions were chosen to broadly represent the student interview; however they were most heavily weighted to cover financial aid,



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financial support for educational expenses from family, educational status of family members, and work experiences while enrolled in institution. Specific items selected were those that had not been evaluated in previous NPSAS studies or had previously proven problematic (and had been refined for the current study). A hard-copy facsimile of the reinterview is provided in Appendix D.

Given the relatively small size of the reinterview sample, it is difficult to determine the extent to which the length of time before reinterview affected the amount of true change; however, the period between initial interview and reinterview was substantially longer that in previous reinterview studies. Consequently, these analyses provide a more conservative test of temporal consistency and derived reliability indices should be considered lower-bound estimates.

## 4.6.4.1 Analytic Method

Because not all items were applicable to all respondents (e.g., some questions were asked only of graduate/first-professional students, some only of dependent students) and because analyses were restricted to those cases with determinate responses in *both* interviews, <sup>20</sup> considerable variation exists in the number of cases on which reliability indices are based for the several items considered. Reliability indices computed for all paired responses were: (1) percent agreement between the two responses and (2) one or more relational measures of reliability.

**Percent Agreement.** Most examined paired responses can be classified as categorical variables; possessing either nominal or ordinal scale properties; however, some variables (such as dollar amounts, hours worked per week, or untruncated counts) possessed interval or ratio scale properties. For categorical variables, agreement was defined as an exact match between the two responses. For the free response, qualitative variables, some additional latitude was allowed (since failure to produce the exact same number would not be evidence of serious unreliability). For such items, the standard adopted for "agreement" (as used previously with NPSAS reliability analyses) was within one standard deviation unit.<sup>21</sup>

<sup>&</sup>lt;sup>21</sup>This is equivalent to within one-half standard deviation of the average (best estimate of actual value) of the two responses.



<sup>&</sup>lt;sup>20</sup>Additional restrictions existed for *item 23*: About how much did you earn from all jobs while you were enrolled?; the response to this item was qualified by the response to *item 24* which indicated the units (simultaneously chosen by respondent) in which the *item 23* was reported (amount per hour, per week, per month, per term, or for the entire enrollment period during that year). Only about half of those responding to these items used the same units in the initial interview and reinterview. Since conversion to a common metric would require considerably more information than was available in the reinterview, reliability analyses for *item 23* were further restricted to those who also responded consistently to *item 24*. Moreover, analyses were conducted separately for each reporting unit, since analyses across units would produce spuriously high reliability indices.

Index of Reliability. An index of reliability, comparable to the interclass correlation coefficient used in assessing inter-rater reliability, <sup>22</sup> was computed for *all paired observations*, since it is defined for both categorical and quantitative items. For categorical items, the index can be computed for an entire item as well as for each response alternative of the item, which provides a mechanism whereby differential reliability of specific response alternatives can be evaluated. The reliability index is the additive inverse of the ratio of estimated error variance of an item to the to total item variance, and the ratio estimate used here is I, the inconsistency index, which is widely used by the Census Bureau for test/retest reliability studies<sup>23</sup>. Consequently, the reliability index used here is given as 1 - I. The index of reliability for categorical variables is algebraically equal to kappa ( $\kappa$ ); Fleiss<sup>24</sup> recommends the use of  $\kappa$  for categorical data because it represents a chance-corrected percent-agreement score (the number of actual consistent answers divided by the number expected by chance based on the marginal probability of each answer -- with the obvious implication that the raw percent agreement will always equal or exceed  $\kappa$ ) and it is the analog of the intraclass correlation coefficient for quantitative variables<sup>25</sup>.

Other Relational Indices. While the index of reliability can be applied to data with scale properties greater than nominal, it does not completely reflect the nature of ordinal, interval, or ratio scale properties. To accommodate such properties, more traditional relational measures consistent with prior NPSAS reliability analyses have been used. For questions that are answered using ordered categories (including truncated counts) the Kendall's tau-b ( $\tau_b$ ) statistic, which takes into account the obviously-present condition of tied rankings, has been used. For items yielding interval or ratio scale responses (such as the amount earned), the Pearson product-moment correlation coefficient ( $\mathbf{r}$ ) is used. As would be expected, these relational statistics, which take into consideration the additional metric properties of the data, uniformly yielded estimates of reliability that were equal to, or greater than, that shown by the index of reliability.

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<sup>&</sup>lt;sup>22</sup>c.f. Fleiss, J. 1986. The Design and Analysis of Clinical Experiments. New York: John Wiley & Sons, Inc., and Winer, B. 1962. Statistical Principles in Experimental Design, 2<sup>nd</sup> edition. New York: McGraw-Hill.

<sup>&</sup>lt;sup>23</sup>c.f., U. S. Bureau of the Census. 1985. Evaluating Censuses of Population and Housing: Statistical Training Document ISP-TR-5. Washington, DC: Government Printing Office.

<sup>&</sup>lt;sup>24</sup>Fleiss, J. 1981. Statistical Methods for Rates and Proportions, 2<sup>nd</sup> edition. New York: John Wiley & Sons, Inc.

<sup>&</sup>lt;sup>25</sup>For quantitative items, the index of inconsistency is the mean squared difference between original interview and reinterview answers divided by an estimator of the item variance.

<sup>&</sup>lt;sup>26</sup>c.f. Kendall, M. (1945). The treatment of ties in rank problems. *Biometrika*, 33, 81-93 and Agresti, A. (1984). *Analysis of Ordinal Categorical Data*. New York, NY: Wiley & Sons.

## 4.6.4.2 Reliability Results

Results of the overall reliability analyses for the NPSAS:96 reinterview study, for specified content areas, are provided in **Table 4.23** through **Table 4.26**; for the strictly nominal scale data items, this presentation provides only the aggregate (item level) value of the index of reliability. A copy of the reliability reinterview instrument and the variable names of the student CATI items associated with each reinterview item appear in Appendix D, starting on page D-111.

Reliability indices for the **educational finance items**, as shown in **Table 4.23** are generally acceptable, but are somewhat mixed. While all such items show agreement over the two administrations exceeding 80 percent, the relational statistic only exceeds 0.80 for *item 18*, regarding receipt of aid from an employer, and *item 21*, regarding total amount borrowed for postsecondary education. This latter item, treated as a quantitative or continuous variable, shows the highest relational statistic in the set  $(\mathbf{r} = 0.89)^{27}$  but the lowest percent agreement (83 percent). The least reliable item in this set is *item 20* (regarding acceptance of all aid awarded), yielding an 85 percent agreement rate and a relational statistic near zero  $(\kappa = 0.16)$ ; the disparity between the two reliability indices lies with the instability of "no" responses to this item.

Table 4.23— Reliability indices for education finance items

		Number of	Reliability indices		
····	Item number and wording	analysis cases	Percent b	Relational statistic	
2	Did you get any grants, scholarships, assistantships, loans, or any other financial aid in 1994-95?	115	87.0	0.71	
11	During 1995-96, did your [parent/guardians] pay for any or your tuition or fees?	183	85.8	0.72	
12	During 1995-96, did your [parent/guardians] pay for any or your room and board?	57	86.0	0.62	
13	During 1995-96, did your [parent/guardians] pay for any or your books or equipment?	183	84.7	0.69	
18	Did you receive tuition reimbursement from your employer?	182	96.7	0.82	
20	Did you accept all of the aid you were awarded for the year?	146	85.2	0.16	
21	Including [FILL AMT] from [parents/guardians], and all other sources, how much have you borrowed for your education since you left high school?	126	82.5 <sup>d</sup>	0.89 <sup>e</sup>	

NOTE: Analyses are based on 236 respondents to the reliability interview.

 $<sup>^{27}</sup>$ The value of  $\kappa$  for this item was also 0.89; however, the variability of amounts reported is quite large; this large variability also increases the value of the reliability index with all other things being equal.



<sup>&</sup>lt;sup>a</sup>Analyses were conducted only for respondents with determinate responses on both the initial interview and the reinterview; not all questions were applicable to all respondents.

bUnless otherwise indicated, this percentage reflects an exact match of the paired responses.

Unless otherwise indicated, this measure is the aggregate reliability index,  $\kappa$ .

<sup>&</sup>lt;sup>d</sup>Agreement was determined as response differences not exceeding 1 standard deviation unit.

Relational statistic used here is the Pearson product moment correlation coefficient, r.

Such negative responses are rare (between five and 10 percent for initial administration and reinterview), and reported quite inconsistently; of the 24 individuals who responded negatively in *either* administration, only 3 responded consistently in *both*<sup>28</sup>.

A similar (but less extreme) situation, i.e., lower frequency of "no" responses that are relatively instable, applies to *item 2* and *item 12*, and consequently depresses the consistency statistic. Even for the most reliable of the categorical items in the educational finance set (for which the percent agreement is 97 percent), the value of  $\kappa$  has been similarly depressed to 0.82; in this case, due to the instability of the infrequent (only about 10 percent of respondents) "yes" responses. Although time referents were explicitly or implicitly (through prior "set up" questions) available for all items in this set, some inconsistencies still may have resulted from confusions on the part of respondents (e.g., assuming, during reinterview, that the 1995-96 school year included the spring term of 1996). Also, there is possibility for real change between the initial interview and reinterview. Both such cases, however, would typically result in changes of responses from "no" to "yes," but no such trend was noted. In fact, for this set of items, response changes were generally more heavily weighted in the opposite direction.

As presented in **Table 4.24**, two of the three items related to **work experience**, show only marginally acceptable reliability; agreement of initial and reinterview responses for these two items is less than 70 percent, and relational statistics ( $\tau_b$ ) are less than 0.65 (in one case less than 0.50). However, the remaining item in this set, *item* 22, regarding average hours worked per week, shows good reliability; 83 percent agreement and a Pearson correlation of 0.89.

Table 4.24— Reliability indices for work experience items

			Reliabil	ity indices
	Item number and wording	Number of a analysis cases	Percent b agreement	Relational statistic
17	Between July 1, 1995 and June 30, 1996, how many jobs did you have?	232	67.7	0.61
22	About how many hours did you work per week while you were enrolled July 1, 1995 through June 30, 1996?	183	83.1 <sup>d</sup>	0.89 <sup>e</sup>
25	Did you work for all or most of the weeks while you were enrolled?	155	67.7	0.48

NOTE: Analyses are based on 236 respondents to the reliability interview.

<sup>&</sup>lt;sup>28</sup>The basic instability of negative responses to this item suggests that its meaning is being misunderstood; the wording should be reworked before the item is used again and interviewers should be better trained on administration of the item.





<sup>^</sup>Analyses were conducted only for respondents with determinate responses on both the initial interview and the reinterview; not all questions were applicable to all respondents.

bUnless otherwise indicated, this percentage reflects an exact match of the paired responses.

 $<sup>^{</sup>c}$ Unless otherwise indicated, this measure is Kendall's  $\tau_{h}$ .

<sup>&</sup>lt;sup>d</sup>Agreement was determined as response differences not exceeding one standard deviation unit.

<sup>&</sup>lt;sup>e</sup>Relational statistic used here is the Spearman product moment correlation coefficient, r.

For *item 17*, regarding number of jobs, and *item 25*, regarding frequency of work during enrollment periods, percent agreement between the two responses was about 68 percent. The relational statistics ( $\tau_b$  was used in both cases to accommodate the ordinal properties of the response option sets) were 0.61 and 0.48, respectively. The reliability index ( $\kappa$ ) was lower in both cases, 0.51 and 0.42, respectively, suggesting that error accounts for about half (or more) of the observed variation of individuals' responses. For *item 17*, however, the value obtained is considered to be depressed due to real change that took place between the initial interview and January 30, 1997; namely, taking a summer job after the spring term of the 95-96 school year. The micro data are consistent with this hypothesis, since they show that the predominant (but not all) change involved an increase in number of jobs reported during the reinterview.

The inconsistency of responses to item 25 (Did you work for all or most of the weeks you were enrolled?) are probably traceable to respondent (or interviewer) confusion with the compound nature of the question posed, particularly in interpreting the meaning of the available response alternatives<sup>29</sup> in relation to that question. The most inconsistent response alternative was "about half" the weeks enrolled (among the eleven respondents who chose that response alternative in either administration, only one consistently gave this response) and the next most inconsistent response was "most of the time" while enrolled. The consistency index for these two response options were 0.14 and 0.37, respectively, probably reflecting the difficulty of determining the desired range for the two responses (e.g., is working 5 weeks out of 9 "most of the time" or "about half"). <sup>30</sup>

The items related to **income** were somewhat mixed (**Table 4.25**). The single categorical variable in this set yielded a percent agreement of slightly over 80 percent, but the reliability index was only 0.60, indicating that an estimated 40 percent of total item variance is attributable to error. The error is directional (a notable increase in "yes" responses during the reinterview), which is consistent with a relaxation in parental requirements of repayment, but there is no plausible reason to hypothesize such change from one school year to the next. Because the question is so straightforward, it seems more likely that the inconsistency is related to either: (1) misreporting (or misrecording) or (2) differential interpretation due to differences between the two interviews in the interview context, as established by preceding items, within which the item was embedded.

The two items relating to personal (plus spouse's, where applicable) income during previous years (item 26 and item 27) seem acceptably reliable, particularly for reported income values, which are notoriously unreliable. Agreement of the paired quantitative responses to these items exceeds 87 percent, and the values of  $\mathbf{r}$  are between 0.74 and 0.79. The discrepancy, for item 23, between the overall agreement of 78 percent and the Pearson correlation of near unity (0.99) is somewhat artifactual, resulting from a spuriously high correlation. Recall that this item was analyzed separately within groups that reported the same referent unit (e.g., per hour, per

<sup>&</sup>lt;sup>30</sup>The lack of consistency in this item (and particularly its nature) strongly suggests that the item be reworked prior to additional use and/or that training of interviewers in administering this question be improved.



<sup>&</sup>lt;sup>29</sup>Response alternatives to the question were: (1) Yes, every week while enrolled; (2) Yes, most of the time while enrolled; (3) No, only about half the weeks while enrolled; and (4) No, less than half the weeks while enrolled.

month) in both interviews (which also accounts for the relatively small analysis group). While the correlations within the smaller analysis groups were also reasonably high (ranging from 0.77 to 0.98),<sup>31</sup> the analysis of the combined groups (each with a different unit of measurement) creates a natural clustering of the reporting unit groups to produce an artificially high relationship. Although based on a relatively small number of cases, this item is considered acceptably reliable.

Table 4.25—Reliability indices for income

		N	Reliabilit	y indices
	Item number and wording	Number of analysis cases	Percent b agreement	Relational statistic
14	Did your [parents/guardians] give you an allowance that you don't have to repay?	182	82.4 <sup>d</sup>	0.60 <sup>e</sup>
23	About how much did you earn from all jobs while you were enrolled?	68	77.9	0.99 <sup>f</sup>
26	What was your [and spouse's] total income from all sources, prior to taxes and deductions, excluding any financial aid you have received for 1995?	147	88.4	0.74
27	What was your [and spouse's] total income from all sources, prior to taxes and deductions, excluding any (student) financial aid you have received for 1994?	71	87.3	0.79

NOTE: Analyses are based on 236 respondents to the reliability interview.

Reliability indices for items related to **personal and family educational experiences** are provided in **Table 4.26**. With one exception, *item 4* (related to extent of completion of all requirements for degree among graduate and first-professional students), these items are acceptably reliable. While reliability estimates for this item are based on less than 30 cases, they are nonetheless quite low (about 61 percent agreement among the paired responses and a  $\tau_b$  of 0.22). The reliability index for the item was also low ( $\kappa = 0.21$ ), indicating that about 80 percent of total variance is attributable to error. The reinterview item was asked retrospective to a specific date, which, for effectively all of these students, was toward the end of the final term of the 95-96 regular school year (the initial interview couched the question in terms of "currently").

<sup>&</sup>lt;sup>31</sup>The computed values of **r** were: 0.97 for those reporting amount per hour, 0.77 for those reporting amount per week, 0.92 for those reporting amounts per month, and 0.98 for those reporting total amounts for the time they were enrolled.



Analyses were conducted only for respondents with determinate responses on both the initial interview and the reinterview; not all questions were applicable to all respondents.

bUnless otherwise indicated, agreement was determined as response differences not exceeding one standard deviation unit..

<sup>&</sup>lt;sup>c</sup>Unless otherwise indicated, this measure is the Pearson product moment correlation coefficient, r.

<sup>&</sup>lt;sup>6</sup>This percentage reflects an exact match of the paired responses

Relational statistic used here is the aggregate reliability index, k.

This value is artifactually inflated because of the clustering of the values provided by their unit of reference (i.e, from per hour to for the total time of enrollment); within specific unit-of-reference groups, however, the correlations were still high, ranging from 0.77 for those reporting earnings per week to 0.98 for those reporting a grand total.

Table 4.26— Reliability indices for personal and family educational experience items

		Number of	Reliability indices		
	Item number and wording	analysis cases	Percent b	Relational statistic	
3	As of [main interview date] had you completed your program of study and received your [Certificate/Degree]?	148	91.9	0.72	
4	As of [main interview date] had you completed your course work and all other requirements for your degree? (G1P only)	28	60.7	0.22	
7	While enrolled during 95-96, where did you live?	233	86.3	0.79 <sup>d</sup>	
28	What was the highest grade or level of education your father ever completed?	209	77.5	0.83	
29	What was the highest grade or level of education your mother ever completed?	218	83.9	0.83	
30	How many of your other family members ever attended a postsecondary institution?	230	77.4	0.72	

NOTE: Analyses are based on 236 respondents to the reliability interview.

It is quite conceivable that in the reinterview, the students interpreted the date as "at the close of the term," in which case the potential for real change exists. There is fairly strong indication that a considerable part of the "error" may be in actuality attributable to such real change, since the preponderance (but not all) of the response changes are in the direction that would be expected<sup>32</sup>. Nonetheless, the item remains potentially problematic; since error may be introduced by confusion on the part of either the respondent or interviewer, the item should be tested further.

A similar question (*item 3*) was asked of undergraduates. While similar arguments can be made regarding confusion of time points, distributional properties of this item do not support an hypothesis of real change, since net change was (slightly) in the direction of less completion reported in the reinterview. Again, however, the bulk of the inconsistency is traceable to the "intermediate" response option -- in this case "No, completed program but have not yet received degree." The reliability index for this resource option was 0.12, and of the 10 individuals choosing this option in either the initial interview or the reinterview, only 1 chose it consistently;

<sup>&</sup>lt;sup>32</sup>That is, responses generally changed from "not completed course work" to "completed course work but not all requirements" and from this latter category to "completed all requirements.



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<sup>&</sup>lt;sup>a</sup>Analyses were conducted only for respondents with determinate responses on both the initial interview and the reinterview; not all questions were applicable to all respondents.

<sup>&</sup>lt;sup>b</sup>All percentages are based on exact matches of the paired responses.

<sup>&</sup>lt;sup>c</sup>Unless otherwise indicated, this measure is Kendall's  $\tau_h$ .

<sup>&</sup>lt;sup>d</sup>Relational statistic used here is the aggregate reliability index,  $\kappa$ 

suggesting that the intermediate options in both this item and *item 4* could either be misunderstood by the respondents or miscoded by the interviewers. Even with this problem, however, *item 3* yielded acceptable reliability (92 percent agreement,  $\tau_b = 0.72$ , and  $\kappa = 0.68$ ).

The *items* 7, 28, and 29 also showed acceptable (but not high) reliability, and for all such items, the principal inconsistencies could be traced to specific response alternative sets. (It is considered unlikely that real change could have affected the reliability estimates of any of these items.) The major inconsistency in *item* 7 (related to living arrangements while going to school) lay in the "non-standard" living quarters response options (i.e., 'off-campus in school-owned housing," "with relatives other than parents," and "some place else"). Although these options were combined into a single category for purposes of analysis, the index of reliability for the combined response options was only 0.37 (of the 20 respondents who chose any of these three options in either the initial interview or the reinterview, only 5 consistently chose one of the three).

The reduction in reliability for *item 28* and *item 29*, which are quite similar items related to father and mothers highest level of education, generally stemmed from quite similar sources. Specifically, response options were unstable if they indicated that the parent had completed some postsecondary education *but* had not completed at least a 4-year program.<sup>33</sup> Such response options (see Table G.3 in Appendix G) required differentiation of how many years of postsecondary education the parent had completed as well as the type of postsecondary education involved (i.e., college or technical/ business institution), and such distinctions seemed to be too difficult for the respondents and interviewers to consistently determine. In all but one case (mother completing 2 or more years of college; reliability index of .73), the reliability index for these response options were less than 0.50, estimating that over half of the observed variance for all such response options was attributable to response error.<sup>34</sup>

Item 30 (regarding the number of "other" family members yielded only moderately acceptable reliability indices (77 percent agreement,  $\kappa = 0.67$ , and  $\tau_b = 0.72$ ). While real change over time is possible (i.e., more family members attending postsecondary education), the crosstabular data do not fully support such a contention, since the changes in numbers reported are mostly reductions from what was initially reported. It seems most likely that the inconsistencies of responses to this item are due to differential interpretations on the part of respondents as to what "other" family members to consider in the count. As posed, the question does not necessarily exclude parents (although in the context of items 28 and 29 this may be assumed implicit) and provides nothing in the way of limiting the extent of family considered (e.g., Is this immediate family only?; Are grandparents, aunts, uncles included? For non-traditional students, are children included?), even though the presumed focus of the question (for traditional postsecondary students) is siblings.

<sup>&</sup>lt;sup>34</sup>The overall reliability of these two items could be improved dramatically by consolidating some of the response options yielding low reliability indices and/or through better training of interviewers on how to elicit consistent responses.



<sup>&</sup>lt;sup>33</sup>For mother, the category of advanced professional degree was also very unstable, but only 2 respondents ever chose that category; for the father, the same category was quite stable (index of reliability of 0.91).

# Chapter 5

# Variable Construction and File Development

#### Overview of the NPSAS Files 5.1

The NPSAS:96 data files contain student-level and school-level data collected from institutions records, government databases, and student and parent interviews. The primary analysis file, from which the study Data Analysis Systems (DASs) were constructed, contains data for a total of 48,389 students, including data for 31,328 students with whom a telephone interview was conducted, and an additional 17,061 students who were selected for, but did not complete, a telephone interview but whose CADE data record was essentially complete1.

The definitions of "complete" for the four CADE sections are::

CHAR - complete if we have a valid responses to gender, date-of-birth, marital status, and race in CADE. The first three items have CPS equivalent variables, and these are considered as well. Some valid responses could be -1's. ENR - complete if we have a valid responses to Beginning Month/Year, Ending Month/Year, and Enrollment Status for at least one term. Some valid responses could be -1's.

TUI - complete if we have a valid response to the total tuition item. Some valid responses could be 0 or -1. FINAID - complete if we have a valid response (Y or N) to the Financial Aid gate question, or match to Pell or NSLDS.

<sup>&</sup>lt;sup>1</sup>A student could be represented on the study analysis file if selected for Phase 1 of CATI, determined to be eligible for NPSAS (or imputed to be so), and either of the following conditions was satisfied:

<sup>•</sup>The items in Section A of the Student CATI that are needed to identify first-time, beginning students ("pure" FTBs) were completed, or an abbreviated version of the questionnaire was completed (mail, Spanish, or nonresponse conversion instrument), or

<sup>•</sup>CADE was essentially complete (Sections CHAR, ENR, TUI, and FINAID completed).

The analysis file contains over 1,000 variables, most of which were derived from multiple NPSAS:96 data sources. The NPSAS:96 data sources, along with the corresponding numbers of sample students for which data were obtained, appear in **Table 5.1.** Most, but not all, of the students for whom some data were obtained from one or more sources appear on the analysis files.

Table 5.1—Record counts from NPSAS: 96 data sources

_	. *		Number of students <sup>a</sup>		
Data source	<u> 11</u>	Totals	UG	FTB <sup>b</sup>	GIP
CADE		55,665	44,468	11,765	11,197
Student CATI		31,328	27,311	12,207	4,017
Parent CATI		3,352	3,349	1,872	3
CPS 95-96		29,892	26,158	8,560	3,734
CPS 96-97	e en	22,261	19,563	6,754	2,698
Pell file		13,268	13,237	3,973	2,098 31°
NSLDS file		29,049	22,811	5,981	6,238

<sup>&</sup>lt;sup>a</sup>Student Type is based on the student's last term of enrollment at the NPSAS school.

A preliminary DAS was prepared, adjudicated by U.S. Department of Education staff and released in October of 1996, prior to the end of CATI data collection. This DAS included variables derived from data collected from institutional records, the CPS, the ED Pell Payment File, and the NSLDS. No CATI data were included in this DAS, and only the NPSAS sample students determined at that time to be recipients of federal financial aid were included.



<sup>&</sup>lt;sup>b</sup>Counts of first-time beginning students include only those students determined conclusively to be FTB's based on CATI interview data. FTB counts are included in the counts of undergraduates.

<sup>&</sup>lt;sup>C</sup>Because the student type classification is based on the student's last term of enrollment at the NPSAS school, a small number of graduate/first professional students who were undergraduates at a postsecondary institution sometime during the NPSAS year were found on the ED Pell payment files.

Following completion of all study data collection, separate Data Analysis System files were created for undergraduate and graduate/first professional students. In total, 41,359 of the analysis file cases were undergraduate students during their last term of enrollment at the NPSAS institution, and the remaining 7,030 cases were graduate or first professional students during their last term of enrollment. Because a portion of the 7,030 graduate/first professional students were undergraduates during their first term of enrollment (i.e. college senior in the Fall term but started a graduate program in the Spring), these students appear on both the undergraduate and graduate/first professional DASs. Of the 41,359 students on the undergraduate DAS, 12, 207 are first time beginning students (FTBs).

Complete data obtained through the NPSAS:96 are contained on the Electronic Codebook (ECB) files, which are available to researchers who have applied for and received authorization from NCES to access restricted research files. The NPSAS:96 ECB contains the following files:

- NPSAS Analysis File Contains analytic variables derived from all NPSAS data sources as well as selected direct CATI variables for 48,389 students. This file also includes the 1995-96 financial aid application data and/or the 1996-97 application data for the students on this file who were successfully matched to the CPS data base.
- CADE Data File Contains raw data collected from institutional records for 55,665 students with sufficient data to be considered CADE respondents. This file excludes any "verbatim" CADE variables such as responses to "Other, specify" items. These variables appear on the separate Verbatim Data File.
- Student CATI Data File Contains raw data collected from 31,328 students who responded to the student interview. This file excludes any Student CATI items which already appear on the analysis file. The file also excludes CATI verbatim items, which are on the Verbatim Data File.
- Parent CATI Data File Contains raw data collected from 3,352 parents of students who responded to the student interview. This file excludes any Parent CATI items which already appear on the analysis file. The file also excludes CATI verbatim items, which are on the Verbatim Data File.
- NSLDS Data File Contains raw loan-level data received from the National Student Loan Data System for the 29,049 who appear on *either* the analysis file or the CADE file.



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- CATI Coding Results File Contains the verbatim text and resulting code for student field-of-study, and (for employed students) industry and occupation. These values exist for the 31,328 students on the student CATI data file.
- Verbatim Data File Contains item-level records (i.e. one record per variable) for text variables collected in either CADE or CATI (student and parent interviews). There are multiple records per student for most of the students who appear on either the analysis file or the CADE file.
- Jackknife Replicate Weights File Contains all the Jackknife replicate weights created for NPSAS:96
- Institution Data File Contains selected institution-level variables for sample institutions from which one or more students, appear on any of the student-level files mentioned above. This file may be linked to student-level files by the IPEDS number, which appears on all ECB files.

## 5.2 Data Coding and Editing

#### **5.2.1 Coding**

Most of the NPSAS:96 coding activities were completed during telephone interviewing. The NPSAS:96 CATI system included software components for use in coding student major field-of-study, and industry/occupation data for both students and parents. An IPEDS coding routine retrieved institution characteristics for postsecondary schools other than the NPSAS institution the student reported attending during the NPSAS year. Interviewer proficiency at using the online coding routines was monitored and retraining was conducted as necessary.

Selected variables containing text responses were up-coded into response categories following data collection. These included both CADE and CATI items. Other, Specify responses for student and parent Race, Asian Status, and Hispanic Status were up-coded wherever possible, as were the names of admissions exams. A total of 420 "other student race" and 93 "other parent race" responses were successfully up-coded for CATI respondents. Hispanic Status was up-coded for 58 student CATI cases and Asian Status was up-coded for 307 student CATI cases. Approximately 400 CATI cases in which the IPEDS coding routine had flagged an other postsecondary institution as "Not Found" were examined and recoded where possible.



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Since the CADE software did not include an on-line coding routine for student field-of-study, responses to this CADE item were subsequently coded using the CATI coding system. Results from this activity were used in the construction of the final field-of-study variables derived for the DAS.

#### 5.2.2 Editing

Following the completion of data collection, all CADE and CATI data were edited to ensure adherence to range and consistency checks. Range checks are summarized in the variable descriptions contained in the ECB and DAS data. Inconsistencies, either between or within data sources, were resolved in the construction of the derived variables. Protocol for resolving these discrepancies are described in the variable descriptions for the derived variables found in the ECB and DAS.

There are a variety of explanations for missing data within individual data elements. For example, an item may not be applicable to certain students, a respondent may refuse to answer a particular item, or the respondent may not know the answer to the question. To assist analysts in understanding the nature of missing data associated with NPSAS:96 data elements, a set of missing data codes were developed. These codes were applied to blank responses in the analysis file, as well as the CADE and CATI data files, **Table 5.2** lists the missing data codes and their meanings.

Table 5.2—Description of missing data codes

Missing data code	Description
-1	Don't know (CATI variables) Data not available (CADE variables)
-2	Refused (CATI variables only)
-3	Legitimate skip (item was intentionally not collected because variable is not applicable to this student CADE and CATI variables only)
-8	Data source not available (the item is not applicable because data were not collected from this source for this student)
-9	Other missing (partial interview did not get this far, or item was simply left blank)



## 5.3 Composite and Derived Variable Construction

Analytic variables were created by examining the data available for each student from the various data sources, establishing relative priorities of the data sources, on an item-by-item basis and reconciling discrepancies within and between sources. In some cases the derived or composite variables were created by simply assigning a value from the available source of information given the highest priority. In other cases, raw interview items were recoded or otherwise summarized to create a derived variable. A listing of the set of analysis variables derived for NPSAS:96 appears in Appendix H. Specific details regarding the creation of each variable appear in the variable descriptions contained in the ECB and DAS.

## 5.4 Statistical Imputations

After the editing process (which included logical imputations), the remaining missing values for 22 analysis variables were statistically imputed. The imputations were performed primarily to reduce the bias of survey estimates caused by missing data. The imputed data also makes the data complete and easier to analyze. The variables were imputed using a weighted hot deck procedure,<sup>2</sup> with the exception of estimated family contribution (EFC), which was imputed through a multiple regression approach. **Table 5.3** lists the variables by the percentage of missing data imputed.

## 5.4.1 Hot Deck Imputation

It is easier to describe the weighted hot deck imputation procedure by first describing unweighted hot deck imputation. The unweighted procedure partitions the sample into imputation classes based on auxiliary data available for both nonrespondents and respondents. Within these classes, it is assumed the nonrespondents would have answered in a similar manner to the respondents. Also, the data records are often sorted within the classes to place individuals that share additional characteristics closer to each other. The procedure is implemented by sequentially processing the database and replacing missing responses with the response from the previous respondent within each imputation class.

The unweighted hot deck procedure reduces nonresponse bias if the response distributions differ across the imputation classes. However, by ignoring the sample weights, bias may remain in the survey estimates due to the weighted distribution of the imputed data within the classes being different from the weighted distribution of the respondent data.



<sup>&</sup>lt;sup>2</sup>Cox, B.G. (1980). "The Weighted Sequential Hot Deck Imputation Procedure." Proceedings of the American Statistical Association Section on Survey Research Methods, pp. 721-726.

Table 5.3—The statistically imputed variables and the amount of data imputed

Statistically imputed variable	Study respondent data used in imputation	Number statistically imputed	Percent statistically imputed
Estimated family contribution (EFC3)	All (48,389)	17,016	35.2%
Student income (Stuinc94)	All (48,389)	12,928	26.7%
Parent income (Parinc94)	Dependents (24,218)	5,889	24.2%
Number of dependents (Ndepend)	Independents (24,171)	4,749	19.6%
Parent family size (Pfamnum)	Dependents (24,218)	4,375	18.0%
Dependents indicator (Anydep)	Independents (24,171)	4,306	17.8%
Parent marital status (Pmartial)	Dependents (24,218)	3,775	15.5%
High school degree (Hsdeg)	All (48,389)	2,561	5.3%
High school graduation year (Hsgradyy)	Students with HS degree (47,508)	2,557	5.3%
Student marital status (Smarital)	All (48,389)	2,211	4.6%
Citizenship (Citizen2)	All (48,389)	2,084	4.3%
Student level, last term (Levlast)	All (48,389)	2,073	4.3%
Student level, first term (Levfirst)	All (48,389)	2,063	4.3%
Race (Race)	All (48,389)	1,704	3.5%
Local residence (Localres)	All (48,389)	1,259	2.6%
Age (Age)	All (48,389)	456	0.9%
Attendance intensity in fall (Attend)	Students enrolled in fall (40,058)	314	0.6%
Dependency status (Depend/Depend2)	All (48,389)	283	0.6%
Fall enrollment (Fall)	All (48,389)	164	0.3%
Gender (Gender)	All (48,389)	96	0.2%
Degree program, last term (Deglast)	All (48,389)	92	0.2%
Degree program, first term (Degfirst)	All (48,389)	74	0.2%



The weighted hot deck procedure is an extension of the hot deck procedure which does consider the weighted distribution. The procedure takes into account the unequal probabilities of selection by using the student weights to specify the expected number of times that a particular respondent's answer will be used to replace missing data. By using these expected selection frequencies, the weighted distribution of the imputed data will replicate the weighted distribution of the respondent data. Hence, the weighted hot deck imputation is designed so that, within each imputation class, the weighted survey estimates based on the imputed data will be equal in expectation to the weighted survey estimates based on the respondent data.

To implement the weighted hot deck procedure, imputation classes and sorting variables that were relevant for each item being imputed were defined. If more than one sorting variable was chosen, a serpentine sort was performed where the direction of the sort (ascending or descending) changes each time the value of a variable changes. The serpentine sort minimizes the change in the student characteristics every time one of the variables changes its value.

The respondent data for six of the items being imputed was modeled using a CHAID (Chi-squared Automatic Interaction Detector) analysis to determine the imputation classes. These items were:

- Race/ethnicity.
- Parent income (imputed for dependent students only),
- Student income.
- Student marital status,
- Dependents indicator, and
- Number of dependents.

A CHAID analysis was performed on these variables because of the their importance to the study and the large number of candidate variables available to form imputation classes. Also, for the income variables, trying to define the best possible imputation classes was important due to the large amount of missing data.

The CHAID analysis divided the respondent data (of each of these six items) into segments which differ with respect to the item being imputed. The segmentation process first divided the data into groups based on categories of the most significant predictor of the item being imputed. It then split each of these groups into smaller subgroups based on other predictor variables. It also merged categories of a variable that were found insignificant. This splitting and merging process continued until no more statistically significant predictors were found (or until some other stopping rule was met). The imputation classes from the final CHAID segments were then defined.



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Appendix I presents the imputation classes and sorting variables used for all of the variables imputed by the hot deck approach.

#### 5.4.2 Imputation for EFC

The federal methodology Expected Family Contribution (EFC) was available for 65 percent of the students in the NPSAS:96 sample. In 90 percent of the cases where a recorded EFC was available, the source for the EFC was the student financial aid record (ISIR) reported in the federal central processing system (CPS) for the 1995-96 academic year. Other less frequently used sources were the student aid report (SAR) at the institution, the 1996-97 central processing record, or the EFC recorded on the 1995-96 Pell Grant payment file. For Pell Grant recipients, the EFC in the Pell Grant file was always used if there was a discrepancy.

In the NPSAS:96 analysis file the variable for the recorded EFC is called EFC3. These EFC's were imputed for 35 percent of the 48,389 students on the file. This included approximately 31 percent of the dependent students, 41 percent of the independent students without dependents, and 36 percent of the independent students with dependents. Imputation regression equations were developed separately for dependent and independent students using the data and EFC formula types (CPS160) available in the 1995-96 CPS student records. Details of the various EFC imputations are provided in Appendix I.



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# Chapter 6

# Weighting and Variance Estimation

The NPSAS:96 data base contains a total of eight analysis weights associated with the CADE respondents, Study respondents, and CATI respondents. This includes weights for separate analyzes on all students, undergraduate students, graduate students, and first-time-beginning (FTB) students. The weight names and associated data bases are as follows:

- **CADEWT:** for all CADE respondents (55,665)
- **DASWT0:** for all students on the restricted-use analysis file (48,389)
- **DASWT1:** for Study respondents who were undergraduates in first term (41,482). These students are included in the undergraduate Data Analysis System.
- **DASWT2:** for Study respondents who were graduate/first-professional students in last term (7,030). These students are included in the graduate Data Analysis System
- CATIWT0: for all CATI respondents on the restricted analysis files (31,328)
- CATIWT1: for CATI respondents who were undergraduates in first term (27,414). These students were included in the undergraduate Data Analysis System.
- CATIWT2: for CATI respondents who were graduate/first-professional students in last term (4,017). These students were included in the graduate Data Analysis System.
- **BPSWT:** for CATI respondents who were FTB students (12,040).

Students who went from an undergraduate student in the first term to a graduate or first-professional student in the last term have both positive undergraduate and graduate/first-professional weights.



The CADE and CATI weights apply to the respondents from the CADE and CATI data collection procedures. The Study respondents apply to students who responded to specified CADE or CATI data items. The definitions of these three types of respondents are summarized below.

- CADE respondents: students whose CADE data indicated they were enrolled in the institutions and their aid status was known either from their CADE data or from their data obtained from the Pell payment file or the National Student Loan Data System.
- Study respondents: students selected for CATI who either had complete CADE data or had completed enough of Section A of the CATI interview to determine their FTB status.
- CATI respondents: students who had completed enough of Section A of the CATI interview to determine their FTB status.

#### **Study and CATI Weight Components** 6.1

The Study weights and CATI weights were calculated as the product of 14 weight components, each representing either a probability of selection or a weight adjustment. The weight adjustments included nonresponse and poststratification adjustments to compensate for potential nonresponse bias and frame errors (differences between the survey population and the ideal target population, as discussed in Section 2.1.1). Also, multiplicity and trimming adjustments were performed.

Since the Study weights were restricted to students selected for CATI, the first nine weight components (WT1-WT9) of the Study weights and CATI weights were identical, which represent the sample selection and adjustment components through the first phase of CATI. The remaining weight components (WT10-WT14) are the same steps, but are performed separately because of the different response definitions.



#### (1) Institution Sampling Weight (WT1)

The sampling weight for each sample institution is the reciprocal of the probability of selection. As shown in Section 2.2.1, the probability of selection for institution-I is

$$\pi_r(i) = \begin{cases} \frac{n_r S_r(i)}{S_r(+)} & \text{for non-certainty selections} \\ 1 & \text{for certainty selections.} \end{cases}$$

Therefore, the institution sampling weight was assigned as follows:

$$WT1 = 1 / \pi_{r}(I)$$

#### (2)Adjustment for Institution Multiplicity (WT2)

During institution recruitment, seven sample schools that had two records listed on the IPEDs frame were found. In most cases, it was caused by two schools that had recently merged. If both records were sampled, then one record was retained for tracking survey results and the other record was classified as ineligible.

To account for the two chances that a school could be selected, a multiplicity adjustment was performed by first calculating the probability that either record could be selected, or

$$P(A \text{ or } B) = P(A) + P(B) - P(A)P(B).$$

Then, the new sampling weight was calculated as the reciprocal of this probability, or

$$NEW_WT1 = 1 / P(A \text{ or } B).$$

Finally, the multiplicity adjustment factor was derived by dividing the new sampling weight by the old sampling weight, or

$$WT2 = NEW_WT1 / WT1.$$

Note that the product of WT1 and WT2 equals NEW\_WT1.



#### (3) Adjustment for Institution Nonresponse (WT3)

For weighting purposes, a school was considered a responding school if it provided an enrollment list and then, after the student sample was selected, provided sufficient CADE data for locating at least one sample student. If sufficient CADE data could not be obtained for any of the sample students, the school was still considered a respondent if at least one sample student could be matched to the Central Processing System (CPS) file.

A weighting class adjustment was performed to compensate for nonresponding institutions using institution type as the weighting class. The calculated response rates were enhanced by multiplying the institution's weight by its size measure, or

$$R_{c} = \frac{\sum_{i \in Resp(c)} W_{i} \cdot S_{i}}{\sum_{i \in Elig(c)} W_{i} \cdot S_{i}}$$

where

c = the weighting class,

W<sub>i</sub> = the cumulative institution weight (WT1•WT2), and

 $S_i$  = the institution's size measure.

The weight adjustment factor was then the reciprocal of this response rate. This enhancement forced the estimated total measure of size (roughly the population total of eligible students) to be the same for the responding institutions as it was for the eligible institutions.

Table 6.1 presents the response rates and the resulting adjustment factors by institution type. Note that all the response rates are high except for the private, for-profit, less than 2-year schools. The response rate for those schools was 78.7 which resulted in an adjustment factor of 1.27.



Table 6.1 Weight adjustment factors for institution nonresponse

Weighting class (institution level)	Number of respondents	Weighted response rate	Weight adjustment factor (WT3)
Total	832	93.8	†
Public, less-than-2-year	31	94.0	1.06
Public, 2-year	158	95.8	1.04
Public, 4-year, non-doctorate-granting	122	96.9	1.03
Public, 4-year, doctorate-granting	122	98.5	1.02
Private, not-for-profit, less-than-4 year	41	91.6	1.09
Private, not-for-profit, 4-year, non-doctorate-granting	102	88.7	1.13
Private, not-for-profit, 4-year, doctorate-granting	130	91.9	1.09
Private, for-profit, less-than-2-year	60	78.7	1.27
Private, for-profit, 2-year	44	87.7	1.14
Private, for-profit, 2-year-or-more	22	95.8	1.04

†Not applicable.

#### **(4)** Student Sampling Weight (WT4)

The overall student sampling strata were defined by crossing the institution sampling strata with the student strata within institutions. The overall sampling rates for these sampling strata can be found in Chapter 2. The sample students were systematically selected from the enrollment lists at institution-specific rates which were inversely proportional to the institution's probability of selection. Specifically, the sampling rate for student stratum-s within institution-I was calculated as the overall sampling rate divided by the institution's probability of selection, or

$$f_{s|i} = \frac{f_s}{\pi_s(i)} ,$$

where

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= the overall student sampling rate, and  $f_{\varsigma}$ 

 $\pi_{r}(I)$  = the institution's probability of selection.

As discussed in Chapter 2, the institution-specific rates were designed to obtain the desired sample sizes and achieve nearly equal weights within the overall student strata.



If the institution's enrollment list was larger than expected based on the IPEDS data, the preloaded student sampling rates would yield larger than expected sample sizes. Likewise, if the enrollment list was smaller than expected, the sampling rates would yield smaller than expected sample sizes. To maintain control on the sample sizes, the sampling rates were adjusted, if necessary, so that the number of students selected did not exceed by more than 50 students the estimate reported to the school based on the IPEDS data. A minimum sample size constraint of 40 students was also imposed so that at least 30 respondents from each participating institution could be expected.1

The student sampling weight was then the reciprocal of the institution-specific student sampling rates, or

$$WT4 = 1 / f_{sil} .$$

#### Student Subsampling Weight (WT5) (5)

When schools provided hard-copy lists for student sampling, they often did not provide separate lists by strata (e.g., potential FTBs and other undergraduate students were on the same list). When that happened, the combined list was sampled at the highest of the sampling rates for the strata contained within the list. Strata with the lower sampling rates were then subsampled to achieve the desired sampling rates. The student subsampling weight adjustment factor, WT5, is the reciprocal of this subsampling rate. This weight factor is unity (1.00) for most students because this subsampling was not necessary for most institutions.

#### (6) Adjustment for Student Multiplicity (WT6)

Students who attended more than one eligible institution during the NPSAS year had multiple chances of being selected. That is, they could have been selected from any of the institutions they attended. Therefore, these students had a higher probability of being selected than was represented in their sampling weight. Adjustment for this multiplicity was made by dividing their sampling weight by the number of eligible institutions attended. Specifically, the student multiplicity weight adjustment factor was defined as

$$WT6 = 1 / M$$

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<sup>1</sup> NCES confidentiality guidelines require at least 30 respondents before NCES can send the school a statistical report on their sample students.

where M is the multiplicity, or number of institutions attended. The multiplicity was determined from the CATI interview, the Pell payment file, and the National Student Loan Data System. Unless there were evidence to the contrary, the student multiplicity was presumed to be unity (1.00).

## (7) Adjustment for Unknown Eligibility Status (WT7)

After abstracting the student record data using CADE, a weight of zero was assigned to students determined ineligible. A sample of students was selected for CATI from the students who were not classified as ineligible. The final eligibility status was then determined from the CATI interviews. However, for the students whom RTI staff were unable to contact, the final eligibility status could not be determined. These students were treated as eligible and their weights were adjusted to compensate for the small portion of students that were actually ineligible.

Weighting classes were defined by the cross of institution type and the students' matching status to financial aid files (CPS, Pell, and Stafford). The first two columns of Table 6.2 present the weight adjustment factors applied to the students with unknown eligibility. These weight adjustment factors were simply the eligibility rate estimated among students with known eligibility status. For the eligible students, the weight adjustment factor was set equal to one.

#### (8) Adjustment for Insufficient CADE or CPS Data (WT8)

The students who had sufficient locating data from the CADE data or from the CPS file were subsampled for CATI interviewing. To adjust for students without sufficient locating data, a weighting class adjustment was performed using the cross of institution type and the students' matching status to financial aid files as weighting classes (the same classes used for WT7). The last two columns of Table 6.2 present the weight adjustment factors.

Since the response rates were quite high, most of the weight adjustment factors are near one. The only exception was for students from public, less than 2-year schools that had no matches to the financial aid files. For these students, the weight adjustment factor was 1.30 (response rate was 76.8 percent).



Table 6.2—Weight adjustment factors for unknown student eligibility status and for insufficient student CADE/CPS data

CADE/CPS   factor (WT7)   factor (WT8)   factor (WT7)   factor (WT8)   factor (	48.5			for unknown bility	insufficie	ment for nt student CPS data
Display   Public, less-than-2-year   Matched Pell or Stafford file   98   0.90   312   1.02   1.00		(institution level by student type by matching status to financial aid files)	adjusted for unknown	adjustment	with sufficient CADE/CPS	adjustment factor
Public, less-than-2-year Matched Pell or Stafford file Matched CPS file only No matches  Public, 2-year Matched Pell or Stafford file Matched CPS file only No matches  Matched Pell or Stafford file Matched CPS file only No matches  Definition  Matched Pell or Stafford file Matched CPS file only No matches  Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  Graduates: Matched Pell or Stafford file Matched CPS file only No matches  Matched Pell or Stafford file Matched CPS file only No matches  Injour Description  Matched CPS file only No matches  Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  Injour Description  Matched CPS file only No matches  Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  2,2414 0,96 4,101 1.05  Graduates: Matched Pell or Stafford file Matched CPS file only No matches  2,279 0,95 2,789 1.00  Private, not-for-profit, 4-year, non-doctorate-granting  Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches  Private, not-for-profit, 4-year, non-doctorate-granting  Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches  Private, not-for-profit, 4-year, non-doctorate-granting  Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches  Private, not-for-profit, 4-year, non-doctorate-granting  Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches  No matches  No matches  Private, not-for-profit, 4-year, non-doctorate-granting  Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches  No matches  Private, not-for-profit, 4-year, doctorate-granting  Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches  No matches  No matches  No matches  No ma	Total		28,339	†	58,267	†
Matched CPS file only       41       0.87       120       1.00         No matches       529       0.74       745       1.30         Public, 2-year       Matched Pell or Stafford file       623       0.98       1.910       1.00         Matched CPS file only       249       0.94       757       1.00         No matches       2,609       0.85       4,561       1.04         Public, 4-year, non-doctorate-granting       Undergraduates:       Marched CPS file only       315       0.99       4,071       1.00         Momatches       1,939       0.95       3,598       1.03         Matched CPS file only       315       0.95       996       1.00         No matches       1,939       0.95       3,598       1.03         Graduates:       Matched Pell or Stafford file       92       1.00       216       1.00         Matched CPS file only       40       0.98       86       1.00         Public, 4-year, doctorate-granting       1.190       0.95       1,441       1.06         Public, 4-year, doctorate-granting       1.190       0.95       1,441       1.06         Matched Pell or Stafford file       1.331       0.99       4,180       1.00 <td>Public, less-than</td> <td>-2-year</td> <td></td> <td></td> <td></td> <td></td>	Public, less-than	-2-year				
Matched CPS file only       41       0.87       120       1.00         No matches       529       0.74       745       1.30         Public, 2-year       Matched Pell or Stafford file Matched CPS file only       249       0.94       757       1.00         No matches       2,609       0.85       4,561       1.04         Public, 4-year, non-doctorate-granting       Undergraduates: Matched Pell or Stafford file Matched CPS file only       1315       0.99       4,071       1.00         No matches       1,939       0.95       3,598       1.03         Graduates: Matched Pell or Stafford file Matched CPS file only       40       0.98       86       1.00         No matches       1,190       0.95       1,441       1.06         Public, 4-year, doctorate-granting       1,190       0.95       1,441       1.06         Public, 4-year, doctorate-granting       1,190       0.95       1,441       1.06         Public, 4-year, doctorate-granting       1,190       0.95       1,410       1.06         Graduates: Matched Pell or Stafford file Matched CPS file only No matches       2,414       0.96       4,101       1.05         Graduates: Matched Pell or Stafford file Matched CPS file only No matches       1,10 <t< td=""><td></td><td></td><td>98</td><td>0.90</td><td>312</td><td>1.02</td></t<>			98	0.90	312	1.02
No matches   529	Matched CPS	file only	1			
Public, 2-year   Matched Pell or Stafford file   Matched CPS file only   No matches   Matched Pell or Stafford file   Matched CPS file only   No matches   Matched Pell or Stafford file   Matched CPS file only   Momatches   Matched CPS file only	No matches					
Matched Pell or Stafford file       623       0.98       1,910       1.00         Matched CPS file only       249       0.94       757       1.00         No matches       2,609       0.85       4,561       1.04         Public, 4-year, non-doctorate-granting       1.215       0.99       4,071       1.00         Undergraduates:       Matched CPS file only       315       0.95       996       1.00         No matches       1,939       0.95       3,598       1.03         Graduates:       Matched Pell or Stafford file       92       1.00       216       1.00         Matched CPS file only       40       0.98       86       1.00         Public, 4-year, doctorate-granting       1,190       0.95       1,41       1.06         Undergraduates:       Matched Pell or Stafford file       1,331       0.99       4,180       1.00         Matched CPS file only       312       0.98       1,106       1.00         Matched CPS file only       81       0.98       1,91       1.00         Matched CPS file only       81       0.98       1,99       1.00         Private, not-for-profit, 4-year, not-doctorate-granting       1.00       1.00       1.00	Dublic 2			0.74	'43	1.30
Matched CPS file only   249   0.94   757   1.00		on Chaffe and fit				ļ
No matches   2,609   0.85   4,561   1.00					1,910	1.00
Public, 4-year, non-dectorate-granting		ille only		0.94	757	
Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  Graduates: Matched Pell or Stafford file Matched CPS file only Matched CPS file only No matches  Graduates: Matched Pell or Stafford file Matched CPS file only No matches  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 2,414 0,96 4,101 1.05  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 2,279 0,95 2,789 1.07  Private, not-for-profit, less-than-4-year Matched Pell or Stafford file Matched CPS file only No matches 493 0,85 808 1.03  Private, not-for-profit, 4-year, non-doctorate-granting Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches 1,029 0,96 1,759 1.03  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 1,029 0,96 1,759 1.03  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 1,029 0,96 1,759 1.03  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 1,029 0,96 1,759 1.03  Graduates: Matched Pell or Stafford file 102 0,99 304 1.00  Matched CPS file only No matches 1,050 0,96 1,358 1.00  Private, not-for-profit, 4-year, doctorate-granting 1,004 1,00 3,272 1.00  Matched CPS file only No matches 1,050 0,96 1,358 1.00  Private, not-for-profit, 4-year, doctorate-granting 1,004 1,00 3,272 1.00  Matched CPS file only Matched CPS file only 1,000 0,99 633 1.00	No matches		2,609	0.85	4,561	1.04
Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  Graduates: Matched Pell or Stafford file Matched CPS file only Matched CPS file only No matches  Graduates: Matched Pell or Stafford file Matched CPS file only No matches  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 2,414 0,96 4,101 1.05  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 2,279 0,95 2,789 1.07  Private, not-for-profit, less-than-4-year Matched Pell or Stafford file Matched CPS file only No matches 493 0,85 808 1.03  Private, not-for-profit, 4-year, non-doctorate-granting Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches 1,029 0,96 1,759 1.03  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 1,029 0,96 1,759 1.03  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 1,029 0,96 1,759 1.03  Graduates: Matched Pell or Stafford file Matched CPS file only No matches 1,029 0,96 1,759 1.03  Graduates: Matched Pell or Stafford file 102 0,99 304 1.00  Matched CPS file only No matches 1,050 0,96 1,358 1.00  Private, not-for-profit, 4-year, doctorate-granting 1,004 1,00 3,272 1.00  Matched CPS file only No matches 1,050 0,96 1,358 1.00  Private, not-for-profit, 4-year, doctorate-granting 1,004 1,00 3,272 1.00  Matched CPS file only Matched CPS file only 1,000 0,99 633 1.00	Public, 4-year, no	on-doctorate-granting				
Matched CPS file only   315   0.95   996   1.00   1.00   No matches   1,939   0.95   3,598   1.03   1.00   No matches   1,939   0.95   3,598   1.03   1.00   No matches   1,190   0.95   1.441   1.06   1.00   No matches   1,190   0.95   1.441   1.06   1.00   No matches   1,190   0.95   1.441   1.06   1.00   1.00   No matches   1.100   1.00   1	Undergraduat	es: Matched Pell or Stafford file	1 215	0.00	4.071	
No matches						
Matched Pell or Stafford file   92   1.00   216   1.00   0.98   86   1.00   0.98   86   1.00   0.98   86   1.00   0.95   1.441   1.06   1.06   1.00   0.95   1.441   1.06   1.00   0.95   1.441   1.06   1.00   0.95   1.441   1.06   1.00   0.95   1.441   1.06   1.00   0.95   1.441   1.06   1.00   0.95   1.441   1.06   1.00   0.95   1.441   1.00   1.00   0.95   1.441   1.00   1.00   0.95   1.441   1.00   1.00   0.95   1.441   1.00   1.00   0.95   1.441   1.05   1.00   0.95   1.441   1.05   1.00   0.95   1.441   1.00   1.00   0.95   1.441   1.00   1.00   0.95   1.441   1.00   1.00   0.95   1.441   1.00   1.00   0.95   1.441   1.00   1.410   1.00   0.95   1.00   0.95   1.00   0.95   1.00   0.95   1.00   0.95   1.00   0.95   1.00   0.95   1.00   0.95						
Matched CPS file only   A0   0.98   86   1.00	Graduates:	Matched Pell or Stafford file	3			
No matches						
Public, 4-year, doctorate-granting Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches Graduates: Matched Pell or Stafford file Matched CPS file only No matches  Private, not-for-profit, 4-year, non-doctorate-granting Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches Matched			}			
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Matched CPS file only No matches   312   0.98   1,106   1.00		octorate-granting				
Matched CPS file only No matches No matches Matched Pell or Stafford file Matched CPS file only No matches Matched Pell or Stafford file Matched CPS file only No matches  Private, not-for-profit, 4-year, non-doctorate-granting Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches  Private, not-for-profit, 4-year, non-doctorate-granting Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches Graduates: Matched Pell or Stafford file Matched CPS file only No matches Incomparison Inco	Undergraduat	es: Matched Pell or Stafford file	1,331	0.99	4,180	1.00
Caraduates:   Matched Pell or Stafford file   Matched CPS file only   No matches			312	0.98		-
Craduates			2,414	0.96		
No matched CPS file only No matches   81   0.98   199   1.00   1.07	Graduates:		640	1.00		
No matches   2,279   0.95   2,789   1.07			81	0.98		
Private, not-for-profit, less-than-4-year  Matched Pell or Stafford file  Matched CPS file only  No matches  Private, not-for-profit, 4-year, non-doctorate-granting  Undergraduate: Matched Pell or Stafford file  Matched CPS file only  No matches  Graduates: Matched Pell or Stafford file  Matched CPS file only  No matches  Graduates: Matched Pell or Stafford file  Matched CPS file only  Matched CPS file only  No matches  1,029  No matches  1,029  No matches  1,029  No matches  1,000  Private, not-for-profit, 4-year, doctorate-granting  Undergraduates: Matched Pell or Stafford file  Matched CPS file only  No matches  1,050  1,000  1,		No matches	2,279	0.95	2,789	
Matched Pell or Stafford file       511       0.98       1,364       1.00         Matched CPS file only       82       0.87       202       1.00         No matches       493       0.85       808       1.03         Private, not-for-profit, 4-year, non-doctorate-granting       951       0.99       3,264       1.00         Undergraduate:       Matched Pell or Stafford file       183       0.99       554       1.00         No matches       1,029       0.96       1,759       1.03         Matched Pell or Stafford file       102       0.99       304       1.00         Matched CPS file only       23       1.00       62       1.00         Private, not-for-profit, 4-year, doctorate-granting       1,050       0.96       1,358       1.00         Undergraduates:       Matched Pell or Stafford file       1,104       1.00       3,272       1.00         Matched CPS file only       190       0.99       633       1.00	Private, not-for-p	rofit, less-than-4-year				j
Matched CPS file only       82       0.87       202       1.00         No matches       493       0.85       808       1.03         Private, not-for-profit, 4-year, non-doctorate-granting       951       0.99       3,264       1.00         Undergraduate:       Matched Pell or Stafford file       183       0.99       554       1.00         No matches       1,029       0.96       1,759       1.03         Graduates:       Matched Pell or Stafford file       102       0.99       304       1.00         Matched CPS file only       23       1.00       62       1.00         Private, not-for-profit, 4-year, doctorate-granting       1,050       0.96       1,358       1.00         Undergraduates:       Matched CPS file only       1,104       1.00       3,272       1.00         Matched CPS file only       190       0.99       633       1.00			511	0.00		
No matches   493   0.85   808   1.03						
Private, not-for-profit, 4-year, non-doctorate-granting  Undergraduate: Matched Pell or Stafford file Matched CPS file only No matches  Graduates: Matched Pell or Stafford file Matched CPS file only No matches  Private, not-for-profit, 4-year, doctorate-granting Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  Private, not-for-profit, 4-year, doctorate-granting Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches						
Undergraduate:         Matched Pell or Stafford file Matched CPS file only         951         0.99         3,264         1.00           Matched CPS file only No matches         1,029         0.96         1,759         1.03           Graduates:         Matched Pell or Stafford file Matched CPS file only No matches         23         1.00         62         1.00           Private, not-for-profit, 4-year, doctorate-granting Undergraduates:         Matched Pell or Stafford file Matched CPS file only No matches         1,104         1.00         3,272         1.00           No matches         190         0.99         633         1.00		_	473	0.85	808	1.03
Matched CPS file only No matches   1,029   0.96   1,759   1.00	Private, not-for-p	rofit, 4-year, non-doctorate-granting				
Matched CPS file only No matches   1,029   0.96   1,759   1.00	Undergraduate	Matched Pell or Stafford 61a	] <sub>^5</sub> , ]			
No matches   1,029   0.96   1,759   1.03   1.00	All the second second	Matched CPS file only				The state of the s
Graduates: Matched Pell or Stafford file 102 0.99 304 1.00 Matched CPS file only No matches 1,050 0.96 1,358 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0						
Matched CPS file only No matches  Private, not-for-profit, 4-year, doctorate-granting Undergraduates:  Matched Pell or Stafford file Matched CPS file only No matches  1,104 1,00 1,00 1,358 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,0	23 Mg 44 4					
No matches Private, not-for-profit, 4-year, doctorate-granting Undergraduates: Matched Pell or Stafford file Matched CPS file only No matches  No matches  1,050  1,050  1,050  1,358  1,000  1	: <del></del>		I			
Undergraduates: Matched Pell or Stafford file  Matched CPS file only  No matches  1,000  1,338  1.00  1,338  1.00  1,338  1.00  3,272  1.00  190  0.99  633  1.00			1 1			
Undergraduates: Matched Pell or Stafford file 1,104 1.00 3,272 1.00 Matched CPS file only 190 0.99 633 1.00	Private, not-for-pi		1,050	0.96	1,358	1.00
Matched CPS file only  No matches  1,104  1,00			1 104	1.00	2.25	
No matches 1.00	<b>G</b> -100					
		No matches	1,693	0.99 0.97	633 2,548	1.00 1.08



Table 6.2—Weight adjustment factors for unknown student eligibility status and for insufficient student CADE/CPS Data (continued)

	Adjustment i	or unknown	Adjustment for student CAL	
Weighting class  (institution level by student type by  matching status to financial aid files)	Number adjusted for unknown	Weight adjustment factor (WT7)	Number with sufficient CADE/CPS data	Weight adjustment factor (WT8)
Graduates: Matched Pell or Stafford file	688	1.00	1,466	1.00
Matched CPS file only	75	0.95	155	1.00
No matches	1,612	0.96	1,925	1.08
Private, for-profit, less than 2-year				
Matched Pell or Stafford file	675	0.96	1,929	1.00
Matched CPS file only	61	0.87	153	1.00
No matches	334	0.92	662	1.02
Private, for-profit, 2-year			ļ	
Matched Pell or Stafford file	558	0.97	1,596	1.00
Matched CPS file only	65	0.88	129	1.00
No matches	292	0.93	430	1.04
Private, for-profit, 4-year		Į	ł	
Undergraduates: Matched Pell or Stafford file	224	0.99	535	1.00
Matched CPS file only	30	0.86	64	1.00
No matches	178	0.97	278	1.02
Graduates: Matched Pell or Stafford file	18	1.00	57	1.00
Matched CPS file only	4	0.90	10	1.00
No matches	117	0.97	152	1.00

†Not applicable.

## (9) Phase One CATI Sampling Weight (WT9)

As CADE data were received from each institution, students were sampled for phase one of CATI on a flow basis. The students were sampled at a fixed rate by generating a random number for each student and then comparing it against the sampling rate. In the middle of this process, some slight adjustments were made to the fixed sampling rates to stay on target for the desired total sample sizes. The rates were adjusted after accounting for the sample yield from institutions already processed and the expected yield from the remaining institutions. The first column of Table 6.3 presents the average of the phase one sampling rates over all the institutions. The phase one sampling weights were defined to be the reciprocals of these average sampling rates.



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# (10) Phase Two CATI Sampling Weight (WT10)

A subsample of the nonrespondents in phase one of CATI were selected for phase two of CATI. These students were subjected to intensive tracing and numerous callbacks to maximize the sample yield and increase the overall response rate. As in phase one, the students were sampled at a fixed rate on a flow basis with midstream adjustments to the fixed rates as institutions were processed. Students who had a firm appointment or had a completed parent interview at the conclusion of the sixth call were selected with certainty.

Table 6.3—Average sampling rates for selection into Phase One and Phase Two of CATI

Student stratum	Phase one	Phase two: CATI weights	Phase two: study weights
Potential FTBs	1.00	1.00	1.00
Other undergraduate, aid applicant	1.00	0.25	0.19
Other undergraduate, not aid applicant	0.70	0.25	0.24
Graduate, aid applicant	1.00	0.28	0.23
Graduate, not aid applicant	0.42	0.25	0.25
First-professional, aid applicant	1.00	0.21	0.19
First-professional, not aid applicant	0.69	0.35	0.43

It is at this point where the weight components for the Study weights and CATI weights are calculated separately because of the different response definitions. For the CATI weights, the average sampling rates were simply the number of students selected for phase two divided by the total number of CATI nonrespondents in phase one. For the Study weights, however, students who were selected for CATI and had complete CADE data were considered Study respondents regardless of their CATI outcome. Thus, the average sampling rates associated with the Study weights were calculated after excluding the students with complete CADE data.

The last two columns of Table 6.3 present the average phase two sampling rates associated with the CATI weights and Study weights. The phase two sampling weights were then defined as the reciprocals of these average sampling rates. The students selected with certainty were assigned a sampling weight equal to one.

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#### (11) Adjustment for Not Locating Student (WT11)

The first type of student nonresponse was not being able to locate (contact) the student. Adjustments for this type of nonresponse were made to compensate for the potential nonresponse bias. Adjustment factors were used that were inverses of predicted response propensities derived from a logistic regression model. The logistic procedure, developed by Folsom (1991), adjusts the weights of respondents so that the adjusted weight sums of respondents reproduce the unadjusted weight sums of respondents and nonrespondents for the predictor variables included in the model.<sup>2</sup> In addition, the procedure provides a formal setting for evaluating variables believed to related to response. To avoid excessive weight variation, the procedure can also constrain the adjustment factors by specifying lower and upper bounds if the bounds are not set too tightly.

Because a much larger number of students was to be used for the CATI weight adjustment, a model for the CATI weights was first determined and then a similar model was used for the Study weights. Candidate predictor variables were chosen that were thought to be predictive of response and were nonmissing for most of the nonrespondents. The candidate predictor variables included

- Number of phone numbers obtained for student,
- Institution type,
- Region,
- Student type,
- Age group,
- Attendance status, and
- Aid status.

Other variables that were considered but were dropped because of too many missing values for the nonrespondents (at the time we were performing the weight adjustments) included

- Race/ethnicity,
- Dependency status,
- Grade point average, and
- Family income.

To detect important interactions for the logistic models, a CHAID (Chi-squared Automatic Interaction Detector) analysis was performed on the predictor variables. The CHAID analysis divided the data into segments which differ with respect to the response variable, ability to locate. The segmentation process first divided the sample into groups based on categories of the most significant predictor of response. It then split each of these groups into smaller

<sup>&</sup>lt;sup>2</sup> Folsom, R.E. (1991). "Exponential and Logistic Weight Adjustments for Sampling and Nonresponse Error Reduction." Proceedings of the Social Statistics Section of the American Statistical Association, pp. 197-202.



subgroups based on other predictor variables. It also merged categories of a variable that were found insignificant. This splitting and merging process continued until no more statistically significant predictors were found (or until some other stopping rule was met). The interactions from the final CHAID segments were then defined.

The interaction segments and all the main effect variables were then subjected to variable screening in the logistic procedure. Variables significant at the 10 percent level were retained, with the exception of institution type and student type which were retained regardless of their significance.

Table 6.4 presents the final predictor variables used in the logistic model to adjust the CATI weights and the average weight adjustment factors resulting from these variables. For the Study weights adjustment model, there were not enough students to include the segment interactions. Therefore, the segment variable was replaced with the main effect variable for the number of phone numbers. The predicted probability of locating student-j from the logistic models is given by:

$$\hat{p}_{Lj} = [1 + \exp(-x_i \beta)]^{-1}$$
,

where

 $\mathbf{x}_j$  = the row vector of predictor variables, and  $\beta$  = the column vector of regression coefficients.

The logistic adjustment factor is then simply the reciprocal of this predicted probability of locating the student, or

WT11 = 
$$1 / p_{L_i}$$
.

The weight adjustment factors from the logistic adjustment are summarized below, and were constrained to not exceed the maximum shown.

Weight Set	Minimum	Median	Maximum
Study weights	1.03	1.14	2.47
CATI weights	1.01	1.22	3.89



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Table 6.4— Average weight adjustment factors from logistic model used to adjust CATI weights for student location nonresponse

Logistic model predictor variables	Number of location respondents in phase two	Weighted response rate	Average weight adjustment factor (WT11)
Total	27,385_	84.8	1.18
Institutional sector			
Public, less-than-2-year	598	81.6	1.23
Public, 2-year	3,707	84.1	1.19
Public, 4-year, non-doctorate-granting	4,877	84.5	1.18
Public, 4-year, doctorate-granting	5,927	87.5	1.14
Private, not-for-profit, less-than-4 year	1,271	78.2	1.28
Private, not-for-profit, 4-year, non-doctorate-granting	3,255	86.3	1.16
Private, not-for-profit, 4-year, doctorate-granting	4,263	84.1	1.19
Private, for-profit, less-than-2-year	1,779	77.2	1.30
Private, for-profit, 2-year	1,267	78.0	1.28
Private, for-profit, 4-year	441	83.6	1.20
Region		00.2	1 112
Plains	2,118	89.3	1.12
Far West	3,915	80.3	1.25
AK, HI, PR	584	75.2	1.33
Other	20,768	85.0	1.18
Student type			
FTBs	13,940	83.8	1.19
Other undergraduates	10,875	85.3	1.17
Graduates	1,698	83.9	1.19
First-professionals	872	87.7	1.14
T itst-protessionals			-
Age group			1
15-23	17,810	86.1	1.16
<b>24-29</b>	4,168	81.4	1.23
30 or older	5,407	85.1	1.18
CHAID segments			
1 = Zero phone numbers	261	36.6	2.73
2 = One phone number, 2-year-or-less schools	199	52.2	1.92
3 = One phone number, 4-year-or-more schools	739	76.0	1.32
4 = Two or more phone numbers, less-than-2-year schools, FTBs	1,380	73.7	1.36
5 = Two or more phone numbers, less-than-2-year schools, not	1,555	1.2.1	
FTBs	1,076	88. 0	1.14
6 = Two or more phone numbers, 4-year-non-postdoctoral schools	14,111	86.6	1.15
7 = Two or more phone numbers, 4-year-non-postucetoral schools	4,709	92.3	1.08
8 = Two or more phone numbers, doctoral schools, not FTBs	4,910	88.1	1.14

# (12) Adjustment for CATI Nonresponse (WT12)

The second type of student nonresponse was if the student refused to be interviewed given that the student was located. The candidate predictor variables were the same candidate variables used in the location nonresponse adjustment (WT11). As in the location adjustment a CHAID analysis was performed on the predictor variables to detect important interactions. The resulting segment interactions and all the main effect variables in the logistic modeling at the 10 percent significance level were then screened.

Table 6.5 presents the final predictor variables used in the logistic model to adjust the CATI weights and the average weight adjustment factor resulting from these variables. The Study weights adjustment used the same model except replaced the segment variable with the aid status main effect variable. As in the location adjustment, the weight adjustment factor for student-j was the reciprocal of the predicted response probability, or

WT12 = 
$$1/p_{rj}^{\land}$$

The resulting weight adjustment factors are summarized below.

Weight Set	Minimum	Median	Maximum
Study weights	1.10	1.20	1.77
CATI weights	1.01	1.19	1.78

Demographic characteristics of CATI respondents and nonrespondents are compared in the table in Appendix J. This table shows that the distributions of demographic characteristics, such as age, race, income, and receipt of aid are significantly different for CATI respondents and nonrespondents. Some of the statistically significant differences are not large differences, but aid recipients are clearly more likely to be respondents. Therefore, the statistical weight adjustments for CATI locating and nonresponse are definitely important for reducing the potential for nonresponse bias due to these types of differences between the CATI respondents and CATI nonrespondents.

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Table 6.5—Average weight adjustment factors from logistic model used to adjust CATI weights for student interview monresponse

Logistic model predictor variables	Number of interview respondents in phase two	Weighted response rate	Average weight adjustment factor (WT11)
Logistic model predictor variables	23,386	82.1	1.22
Total Institutional sector	23,300		
Public, less-than-2-year	503	85.8	1.17
Public, 2-year	3,704	78.8	1.27
Public, 4-year, non-doctorate-granting	4,204	83.5	1.20
Public, 4-year, doctorate-granting	5,077	82.9	1.21
Private, not-for-profit, less-than-4 year	1,066	83.0	1.20
Private, not-for-profit, 4-year, non-doctorate-granting	2,841	85.4	1.17
Private, not-for-profit, 4-year, doctorate-granting	3,601	81.8	1.22
Private, for-profit, less-than-2-year	1,543	85.2	1.17
Private, for-profit, 2-year	1,094	86.1	1.16
Private, for-profit, 4-year	383	85.5	1.17
Region			
AK, HI, PR	572	97.7	1.02
Other	22,814	82.0	1.22
Student type	_ ,-		
FTBs	11,918	85.5	1.17
Other Undergraduates	9,366	80.4	1.24
Graduates	1,382	81.5	1.23
First-Professionals	720	84.7	1.18
CHAID segments			
1. Applied for aid, FTB, less than 24 years old	8,038	90.6	1.10
2. Applied for aid, FTB, 24-29 years old	412	76.8	1.30
3. Applied for aid, FTB, 30+ years old	527	83.9	1.19
4. Applied for aid, not FTB	7,296	86.2	1.16
5. Did not apply for aid, less-than-2 year school, less	141	66.2	1.51
than 24 years old		ļ	
6. Did not apply for aid, less-than-2 year school, 24+	370	84.9	1.18
years old 7. Did not apply for aid, 2-year school, FTB	808	78.7	1.27
	1,038	72.4	1.38
8. Did not apply for aid, 2-year school, not FIB 9. Did not apply for aid, 4-year or higher school	4,756	79.8	1.25

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# (13) Weight Trimming Adjustment (WT13)

All of the nonresponse weight adjustments were performed to reduce potential nonresponse bias. Also, to a smaller extent, the multiplicity adjustments reduce potential bias by accounting for the actual probabilities of selection. However, the cumulative effect of all the adjustment factors can cause excessive weight variation causing inflated sampling variances which then increases the mean square error.

The mean square error of an estimate,  $\hat{\theta}$  , is defined as the expected value of the squared total error, or

$$MSE(\hat{\theta}) = E(\theta - \hat{\theta})^2$$
.

This can be rewritten as

$$MSE(\hat{\theta}) = E[\hat{\theta} - E(\theta)]^2 + [E(\hat{\theta}) - \theta]^2$$

where the first term is the sampling variance and the second term is the bias squared.

By truncating some of the largest weights and smoothing (distributing) the truncated portions over all the weights, the mean square error can usually be reduced by substantially reducing the variance and slightly increasing the bias.

To evaluate the weight variation, the unequal weighting effects on the variance by the cross of institution type and student type were computed as

$$UWE = n \Sigma w^2 / (\Sigma w)^2.$$

When the cumulative effect of the weight adjustment factors caused the unequal weighting effects to be unreasonably large, an upper limit was established for truncation of the largest weights. To distribute the truncated portions, a smoothing adjustment ratio was calculated as the sum of the original weights over the sum of the truncated weights for each class as follows:

$$S_c = \frac{\sum_{i \in c} W_O(i)}{\sum_{i \in c} W_T(i)}$$

where  $W_0(I)$  = the original weight (WT1•WT2•...WT12), and



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 $W_T(I)$  = the truncated weight (the minimum of the original weight and the upper limit).

The truncation and smoothing steps were then combined into one adjustment factor by defining the weight component as

$$WT13 = \frac{W_t(i)}{W_c(i)} \bullet S_c \qquad .$$

#### (14) Poststratification Adjustment (WT14)

To ensure population coverage, the sampling weights were adjusted to control totals with a generalized raking procedure, that derives adjustment factors from an exponential regression model (Folsom 1991).<sup>3</sup> The algorithm for this procedure is similar to the algorithm used in the logistic procedure for the nonresponse adjustments.

Control totals were established for annual student enrollment; number and amount of Pell grants awarded; and number and amount of Stafford loans awarded. The annual student enrollment was controlled by

- institution type, and
- student type.

The Pell grants were controlled by

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- number of Pell grants awarded by institution type,
- · number of Pell grants awarded by dependency status, and
- total amount of Pell grant dollars awarded by institution type.

And finally, the Stafford loans were controlled by

- number of Stafford loans by institution type, and
- total amount of Stafford dollars by institution type.

The annual enrollment control totals were estimated by multiplying the "known" fall enrollment totals from the 1995-96 Fall Enrollment Survey by the ratio estimate (based on NPSAS:96 data) of annual enrollment over fall enrollment. Specifically, the annual enrollment control totals were computed as

<sup>&</sup>lt;sup>3</sup> Folsom, R.E. (1991). "Exponential and Logistic Weight Adjustments for Sampling and Nonresponse Error Reduction." Proceedings of the Social Statistics Section of the American Statistical Association, pp. 197-202.



$$A_{control} = \frac{A_{npsas}}{F_{npsas}} \bullet F_{known} ,$$

where

A<sub>control</sub> = annual enrollment control total,

 $A_{npsas}$  = annual enrollment estimated from NPSAS:96,  $F_{npsas}$  = fall enrollment estimated from NPSAS:96, and

 $F_{known}$  = fall enrollment from the 1995-96 Fall Enrollment Survey.

The exponential adjustment was performed on both the Study weights and the CATI weights. The exponential adjustment satisfies the following constraints:

$$\sum_{j} W_{j} \lambda_{j} x_{j}^{T} = \eta_{o}^{T}$$

where

 $W_j$  = the cumulative weight (WT1•WT2•....•WT13),

 $\lambda_{i} = \exp(\alpha + \mathbf{x}_{i}\beta),$ 

 $\mathbf{x}_{j}$  = the vector of regressors associated with the domains to be controlled, and

 $\eta_o$  = the set of control totals.

The exponential adjustment factor for student-j is then simply

$$WT14 = \lambda_j \quad .$$

Table 6.6 presents the variables associated with the student enrollment control totals and the average weight adjustment factors by these variables. Similarly, Table 6.7 presents the variables associated with the Pell grant and Stafford loan control totals and the average weight adjustment factors. The weight adjustment factors from the exponential adjustment are summarized below, and were constrained to not exceed the maxima shown.

Weight set	Minimum	Median	
Study weights	0.48	1.10	2.75
CATI weights	.25	1.08	3.25

After performing this last weight adjustment, the final Study weights and final CATI weights were computed as the product of the 14 weight components and then rounded to the nearest integer.



Table 6.6— Average weight adjustment factors from exponential model for poststratifying to student enrollment control totals

Exponential model variable	Fall enrollment from 1995-96 fall enrollment survey	Control total for annual enrollment	Average weight adjustment factor (wt14): CATI weights	Average weight adjustment factor (wt14): study weights
Total	15,182,774	19,375,346	1.19	1.19
Student type				
Undergraduate	13,105,442	16,677,550	1.16	1.20
Graduate	1,769,623	2,377,541	1.15	1.16
First-professional	307,709	320,255	1.03	1.07
Institutional sector				ļ
Public, less-than-2-year	140,038	207,617	2.97	2.65
Public, 2-year	5,357,811	7,631,925	1.26	1.30
Public, 4-year, non-doctorate-granting	2,013,174	2,446,951	1.01	1.08
Public, 4-year, doctorate-granting	3,839,249	4,332,172	1.05	1.11
Private, not-for-profit, less-than-4 year	170,620	223,510	1.16	1.24
Private, not-for-profit, 4-year, non-doctorate-granting	1,538,354	1,840,856	1.19	1.18
Private, not-for-profit, 4-year, doctorate-granting	1,501,877	1,720,128	1.08	1.07
Private, for-profit, less-than-2-year	275,677	477,817	1.87	1.85
Private, for-profit, 2-year	223,702	346,011	1.33	
Private, for-profit, 4-year	122,272	148,359	0.88	0.84

## 6.2 FTB Weights

Since FTB status is known only for CATI respondents, the CATI weights are the analysis weights for students who are known to be FTBs. However, FTBs whose first postsecondary institution was not the NPSAS sample institution will not be followed longitudinally in the BPS:96 study. Therefore, the FTB weights were computed by making a final weighting class adjustment to the CATI weights by institution type to compensate for excluding FTBs whose first school was not the sample institution. All the adjustment factors were close to one ranging from 1.00 to 1.02.



Table 6.7—Average weight adjustment factors from exponential model for poststratifying to Pell grant and Stafford loan control total

Exponential model variable	Control total for <i>number</i> awarded	Control total for dollars awarded	Average weight adjustment factor, WT14: CATI weights (number, dollars)	Average weight adjustment factor, WT14: study weights (number, dollars)
Pell grants/institutional level				
Total	3,609,752	5,450,732,592	<b>,</b>	+
Public, less-than-2-year	53,154	66,817,833	(2.86, 2.67)	(2.38, 2.30)
Public, 2-year	1,143,481	1,596,097,492	(1.00, 0.97)	(0.96, 0.99)
Public, 4-year only	229,070	364,590,952	(0.77, 0.77)	(0.84, 0.84)
Public, 5-years or more	1,077,024	1,716,099,421	(1.15, 1.17)	(1.12, 1.14)
Private, not-for-profit, less than 4-year	85,969	130,830,185	(1.08, 1.01)	(1.12, 1.10)
Private, not-for-profit, 4-year only	310,817	501,865,411	(1.22, 1.25)	(1.13, 1.14)
Private, not-for-profit, 5-years or more	238,750	393,263,456	(0.73, 0.75)	(0.78, 0.78)
Private, for-profit, less than 2-year	282,493	416,342,096	(1.62, 1.52)	(1.61, 1.54)
Private, for-profit, 2- year	144,388	202,058,750	(1.39, 1.33)	(1.26, 1.25)
Private, for-profit, 4-years or more	44,606	62,766,996	(1.22, 1.17)	(1.08, 1.08)
Pell grants/student dependency				
Total	3,609,752	†	+	†
Dependent	1,514,937	†	(1.01, †)	(1.03, †)
Independent, no dependents	673,045	†	(1.06,-†)	(0.98, †)
Independent, with dependents	1,421,770	†	(1.15,)	(1.08, †)
Stafford loans/institutional level				
Total	6,335,963	24,738,435,300	†	+
Public, 2-year or less	607,137	1,451,663,706	(1.01, 1.03)	(1.03, 1.06)
Public, 4-year or more	2,926,964	11,374,603,646	(1.29, 1.52)	(1.03, 1.00)
Private, not-for-profit, 2-year or less	117,835	369,257,211	(1.01, 1.05)	(1.23, 1.32)
Private, not-for-profit, 4-year or more	1,888,104	9,219,303,534	(0.86,1.00)	(0.91, 1.04)
Private, for-profit	795,923	2,323,607,270	(1.20, 1.16)	(1.21, 1.22)

†Not applicable.

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#### 6.3 CADE Weights

The development of all the CADE weight components was similar to their counterparts in the Study weights and CATI weights. The only differences were that they applied to a different set of respondent data and did not include the CATI weight components. As mentioned earlier, students were considered CADE respondents if their CADE data indicated they were enrolled at the sample institution and their aid status was known either from their CADE data or from their data obtained from the Pell payment file or the National Student Loan Data System. The weight components were as follows:

- 1. Institution Sampling Weight (WT1),
- 2. Adjustment for Institution Multiplicity (WT2),
- 3. Adjustment for Institution Nonresponse (WT3),
- 4. Student Sampling Weight (WT4),
- 5. Student Subsampling Weight (WT5),
- 6. Adjustment for Student Multiplicity (WT6),
- 7. Adjustment for Student CADE nonresponse (WT7),
- 8. Weight Trimming Adjustment (WT8), and
- 9. Poststratification Adjustment (WT9).

#### 6.4 Variance Estimation

For probability-based sample surveys, most estimates are nonlinear statistics. Hence, the variances of the estimates cannot be expressed in closed form. For example, a mean or proportion, which is expressed as  $\Sigma wy/\Sigma w$ , is nonlinear because the denominator is a survey estimate of the (unknown) population total. Two common procedures for estimating variances of survey statistics are the Taylor series linearization procedure and the Jackknife replicate procedure, which are both available for NPSAS:96. Section 6.4.1 discuss the analysis strata and replicates created for the Taylor series procedure and Section 6.4.2 discusses the replicate weights created for the Jackknife procedure.

Also, to measure the effects the complex sample design features had on the variances of survey estimates, Section 6.4.2 presents design effect estimates for several analysis domains.

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#### 6.4.1 Taylor Series

The Taylor series variance estimation procedure is a well-known technique to estimate the variances of nonlinear statistics. The procedure takes the first-order Taylor series approximation of the nonlinear statistic and then substitutes the linear representation into the appropriate variance formula based on the sample design. Woodruff (1971) presents the mathematical formulation of this procedure and presents an example of the technique to sample surveys.<sup>4</sup>

For stratified multistage surveys, the Taylor series procedure requires analysis strata and analysis replicates defined from the sampling strata and PSUs used in the first-stage of sampling. For NPSAS:96, analysis strata and replicates for three separate data bases were defined: all students, all undergraduate students, and all graduate/first-professional students.

The first step was identify the sampling PSUs. As discussed in Section 2.2.1, the PSUs included the 842 noncertainty institutions. For the 131 certainty institutions, however, the students represent the first-stage of sampling. To resemble the noncertainty institution PSUs, two pseudo-PSUs were created within each certainty institution by randomly assigning sample students into two equal-sized groups.

The next step was to sort the PSUs and pseudo-PSUs by the nine institutional strata and then by the implicit stratification variables used to select the noncertainty institutions. These variables were institution sector, region, and the institution's size measure. From this sorted list, an analysis stratum was then defined each time the value of region (the last discrete sorting variable) changed. Regions were collapsed or split to create approximately the same size analysis strata. This process resulted in 51 analysis strata for all students, 51 analysis strata for undergraduate students, and 42 analysis strata for graduate/first-professional students.

The analysis replicates were then defined within the analysis strata by collapsing the PSUs and pseudo-PSUs as required so each replicate did not contain less than four CADE, Study, or CATI respondents. This sample size requirement will ensure stable variance estimates.

The names of the analysis strata and replicates and the associated data bases are as follows:

ANALSTR, ANALREP: Analysis strata and replicates for all students,

• UANALSTR, UANALREP: Analysis strata and replicates for undergraduates,

and

GANALSTR, GANALREP:

Analysis strata and replicates for graduate/first-

professional students.

<sup>&</sup>lt;sup>4</sup> Woodruff, R.S. (1971). "A Simple Method for Approximating the Variance of a Complicated Estimate." Journal of the American Statistical Association, Vol. 66, pp. 411-414.



#### 6.4.2 Jackknife Replication

The Jackknife procedure is another available variance estimation procedure that computes the variance based on a set of "sample" replicates. A sample replicate is created by randomly removing an analysis PSU within an analysis stratum (as if that PSU had not been selected) and adjusting the weights of the remaining PSUs to preserve the stratum weight total. Typically, the Jackknife procedure assumes two analysis PSUs for each analysis stratum so that the number of replicate weights equals the number of analysis strata.

For Jackknife variance estimation, thirty to sixty replicate weights are usually recommended (Rust, 1986).<sup>5</sup> Adhering to this general recommendation, the Jackknife analysis strata were defined to be the same as the analysis strata defined for the Taylor series procedure. This included

- 51 Jackknife strata for all students,
- 51 Jackknife strata for undergraduate students, and
- 42 Jackknife strata for graduate students.

Then, two Jackknife PSUs were created within each stratum by collapsing the Taylor series analysis replicates.

Based on the Jackknife strata and replicate definitions, we created replicate weights associated with the Study weights, CATI weights, and CADE weights. For the Study and CATI weights, this included separate replicate weights for all students, undergraduates only, and graduates only. Thus, a total of seven replicate weight sets were created:

•	JDWT1-JDWT51:	Study replicate weights for all students,
	JD 11 I I - JD 11 I D I -	btua, replicate weights for all stadelits,

• JDUWT1-JDUWT51: Study replicate weights for undergraduates,

• JDGWT1-JDGW42: Study replicate weights for graduate/first-

professional students,

• JCWT1-JCWT51: CATI replicate weights for all students,

• JCUWT1-JCGWT51: CATI replicate weights for undergraduates,

• JCGWT1-JCGWT42: CATI replicate weights for graduate/first-

professional students, and

• JCADEW1-JCADEW51: CADE replicate weights for all students.

<sup>&</sup>lt;sup>5</sup> Rust, K. (1986). "Efficient Replicated Variance Estimation." Proceedings of the American Statistical Association Section of Survey Research Methods, pp. 81-87.



To create the replicate weights, institution-level replicate weights were defined. For each replicate set, institution weights of one PSU within an analysis stratum were set to zero and the institution weights of the other PSU were ratio-adjusted to preserve the analysis stratum weight total. The institution weights in the other strata remained unchanged. Therefore, the number of replicates is identical to the number of analysis strata.

Then for each set of institution-level replicate weights, all the sampling weight components and weight adjustments were computed as described in the previous sections. Therefore, the Jackknife replicate weights produce variance estimates which incorporate the variance components associated with the nonresponse weight adjustments.

# 6.4.3 Design Effects

The survey design effect for a statistic is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical). It is often used to measure the effects that sample design features have on the precision of survey estimates. For example, stratification tends to decrease the variance, but multistage sampling and unequal probabilities of selection usually increase the variance. Also, weight adjustments for nonresponse, which are performed to reduce nonresponse bias, increase the variance by increasing the weight variation. Because of these effects, most complex multi-stage sampling designs, like NPSAS:96, result in a design effects greater than one. That is, the design-based variance is larger than the simple random sample variance.

Specifically, the survey design effect for a given estimate,  $\hat{\theta}$ , is defined as

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

Also, the square root of the design effect is another useful measure, which can also be expressed as the ratio of the standard errors, or

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



In Appendix F, design effect estimates are presented to summarize the effects of stratification, multistage sampling, unequal probabilities of selection, and the nonresponse weight adjustments. These design effects were estimated using SUDAAN, which uses the Taylor series variance estimation procedure. Appendix F presents 50 tables of design effect estimates for important survey estimates among undergraduate students, graduate students, and first-professional students. The tables include design effects based on the Study weights and on the CATI weights. The Tables are presented as follows:

- Tables F.1-F.19: Design effects for undergraduates based on Study weights,
- Tables F.20-F.38: Design effects for undergraduates based on CATI weights,
- Tables F.39-F.41: Design effects for graduates (excluding FPs) based on Study weights,
- Tables F.42-F.44: Design effects for graduates (excluding FPs) based on CATI weights,
- Tables F.45-F.47: Design effects for first-professionals based on Study weights, and
- Tables F.48-F.50: Design effects for first-professionals based on CATI weights.

<sup>&</sup>lt;sup>6</sup> Shah, B.V., Barnwell, B.G., and Bieler, G.S. (1995). *SUDAAN User's Manual*. Research Triangle Institute, Research Triangle Park, NC.



# Appendix A NPSAS Sampling Details



# Appendix A NPSAS Sampling Details

#### I. Target Population

The ideal target population for NPSAS:96 consists of all students who were enrolled for in postsecondary institutions in the United States or Puerto Rico at any time during the 1995-96 federal financial aid award year, excluding students who were enrolled solely in a GED program or who were concurrently enrolled in high school. As such, the terms of instruction involved would be those beginning between July 1, 1995 and June 30, 1996; however, using this time period to define the survey population would mean that final sampling could not be attempted for many institutions until after the first 1996 summer session began. Consequently, the survey population was defined as those students who were enrolled in any term *beginning* between May 1, 1995 and April 30, 1996.

Both the survey and target populations cover a full 12 months of student enrollment, and most members of the target population are also members of the survey population; however, the adopted definition of the survey population allowed the student lists needed for sample selection to be obtained in January or February for most institutions (e.g., those on a semester calendar system). This definition of the survey population is also completely consistent with that used for NPSAS:93. It also provides substantial comparability with the survey populations for NPSAS:90 and NPSAS:87. (For NPSAS:90, the students sampled were those enrolled on August 1, 1989, October 15, 1989, February 15, 1990, or June 15, 1990 (however, the June 15 enrollees were not sampled for 4-year institutions because of budgetary limitations); for NPSAS:87, only Fall 1986 enrollees were sampled.) Additional sampling constraints were applied, as discussed subsequently in this Appendix.



#### II. Sample Design Overview

Area-clustered, three-stage sampling designs were used for all previous NPSAS studies, including as stages: (1) geographic areas constructed from 3-digit postal Zip code areas; (2) institutions within sample areas; and (3) students within sample institutions. An area clustered design was necessary for NPSAS:87 because a complete instruction frame was not available at that time, and the frame was supplemented with local sources. An area clustered design was used for the 1990 and 1993 studies to reduce the costs associated with sending field staff to sample institutions to abstract registration and financial aid data for sample students.

As part of the NPSAS:96 field test activities, the feasibility of increasing precision of study estimates by eliminating the geographic area stage of sampling was examined. Both a clustered sample of institutions and an unclustered sample of institutions were selected for NPSAS:96. (The field test sample of institutions was selected from the institutions that were in neither of the institutional samples selected for the full-scale study, to insure that no institution would be burdened by participation in both the field test and full scale surveys). A comparison of expected costs and precision for these two sampling designs (i.e., three-stage vs. two-stage) indicated that: (1) the expected difference in cost between the two designs was not substantial and (2) standard errors for important estimates were expected to be 10 to 25 percent smaller with the two-stage design than those with the three-stage design.

The relatively small cost differential between the two approaches results from greater use of two new procedures for collecting student financial aid information and other information from institutional records. The first of these procedures, introduced in the NPSAS:96 Field Test, involved collecting, through Electronic Data Interchange (EDI), student aid data from the ED central processing system (CPS) prior to any data collection at the involved institution. The second procedure, which was introduced in NPSAS:93, was the use of remote CADE, by institutional staff at most schools and by field staff only at the remainder, to obtain information



from school records. Since a two-stage design can only improve precision and the cost penalty did not appear to be substantial, the two-stage design was fielded for the full-scale NPSAS:96. Comparisons of cost and precision estimates under the two sampling approaches are provided in **Tables A.1** and **A.2**; greater detail on comparisons of cost and precision estimates under the two sampling approach procedures are provided in the NPSAS:96 *Field Test Methodology Report*.<sup>1</sup>

A schematic overview of the sequential statistical sampling process for NPSAS:96 is provided in **Figure A.1**. The goal of all sampling activities was to attain NCES-required numbers of eligible sample postsecondary students (within specified student and institution types). An important domain of the required student sample was the set of students identified as first-time, beginning students (FTBs), that is, students who began their postsecondary education during the NPSAS year. These students would comprise the baseline cohort for the BPS longitudinal study. Accounting for expected (from prior NPSAS studies) rates of ineligibility among sample students and rates of FTB misclassification, the desired number of sample students were initially determined as shown, by type of institution and type of student classification, in **Table A.3**. Since it was necessary to select the student samples on a flow basis as sample institutions provided their enrollment lists (in order to meet the data collection schedule), the students were sampled at fixed rates. Under this approach, the actual numbers of students sampled are random variables; however, the sampling rates were set to meet or exceed, in expectation, the sample sizes shown in Table A.3.

The NPSAS:96 sample was also designed to achieve at least 30 student CATI respondents from each sample institution that had at least that many eligible students enrolled during the NPSAS year. This was to allow NCES to send each participating institution a report using the results of the interviews with their students without violating confidentiality requirements. Consequently, institution sample sizes were determined to achieve an average of approximately 50 or more sample students per institution within each institutional stratum.

<sup>&</sup>lt;sup>1</sup>Research Triangle Institute, *National Postsecondary Student Aid Stude*: 1996--Field Test Methodology Report, (Working Paper No. 96-17). National Center for Education Statistics: Washington, DC; Author; July 1996.



# Table A.1—Estimated costs for implementing CADE student record abstractions for the full-scale NPSAS:96 under two sampling designs and two levels of field-CADE schools

	Assı	uning 35 per	Assuming 35 percent field-CADE	ADE	<b>4</b>	Assuming 55 percent field-CADE	rcent field-C	ADE
School CA TIPE	2-stage	design	3-stage	3-stage design	2-stag	2-stage design	3-sta	3-stage design
School CADE cost category	Number of schools	Cost estimate	Number of schools	Cost estimate	Number of schools	Cost estimate	Number of schools	Cost estimate
Total	850	780,757	850	760,986	850	1,123,659	850	1,103,796
Self-CADE <sup>a</sup> (subtotal)	553	161,895	553	161,895	383	112,174	383	112,174
Low maintenance	442	94,799	442	94,799	306	65,630	306	65,630
High maintenance	111	67,096	111	960'19	77	46,544	11	46,544
Field-CADE <sup>b</sup> (subtotal)	297	618,862	297	599,091	467	1,011,485	467	991,622
Hard copy	42	42,043	42	42,043	9	65,067	\$9 .	65,067
Local (<50 miles)	161	285,987	174	309,080	234	415,659	252	447,632
Auto (50-200 miles)	59	166,385	45	126,904	63	177,655	47	132,544
Air (>200 miles)	37	124,447	36	121,064	105	353,104	103	346,379

remainder, distances were computed from FI home bases and cases assigned to other field-CADE categories as appropriately and differential costs applied. Results shown here reflect Costs were estimated directly for the self-CADE schools from past experience, but were modeled for the field-CADE schools in 300 simulations. For each simulation, field-CADE Number of schools was derived as follows: initial school sample size=973; total eligible schools=895 (92 percent); and estimated number responding schools=850 (95 percent). schools were randomly allocated from the simulated sample, a fixed percentage (based on past experience) of these were then allocated to the hard-copy category. Among the averages of the simulation. Estimated costs exclude fixed costs associated with project and task management/oversight, production reporting, secretarial/clerical support, etc. NOTE:

<sup>a</sup>Schools agreeing to have their own staff perform the CADE record abstraction (with reimbursement where requested). <sup>b</sup>Schools requiring that CADE abstraction be performed by contractor field interviewer staff.

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SOURCE: National Center for Education Statitics. National Postsecondary Student Aid Study: 1996--Field Test Methodology Report (Working Paper Series). Washington, D.C: Author, July

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Table A.2— Estimated standard errors for selected NPSAS:93 estimates under two NPSAS:96 sampling designs

			Estimated	l NPSAS:96	standard
Data element	Student type	NPSAS:93 estimate <sup>a</sup>	Under 3-stage	Under 2-stage	Percent reduced <sup>c</sup>
Any aid receipt (percent)	Undergraduate	41.4	1.1	0.9	21.8
	Graduate	38.8	1.4	1.1	16.2
Amount of all aid received (average)	Undergraduate	4,171	121	101	17.1
	Graduate	8,497	335	295	11.8
Federal aid receipt (percent)	Undergraduate	32.1	1.1	0.9	23.3
	Graduate	19.4	1.2	1.1	13.7
Amount of federal aid received (average)	Undergraduate	3,556	63	62	0.9
	Graduate	8,548	286	261	8.9
Loan receipt (percent)	Undergraduate	19.8	1.0	0.8	16.0
	Graduate	18.9	1.2	1.0	14.6
Loan amount (average)	Undergraduate	3,266	51	46	8.9
	Graduate	9,231	329	291	11.8
Receipt of federal grant aid (percent)	Undergraduate	22.6	1.0	0.8	15.6
Amount of federal grants (average)	Undergraduate	1,679	22	19	16.5

NOTE: NPSAS:93 estimates and estimated NPSAS:96 errors, reported in this table, were computed for eligible CADE respondents under two assumed sampling designs: the 3-stage sample design used in all prior NPSAS waves and a 2stage sample design with institutions sampled as the first stage. Reported aid receipt percentages (and associated standard errors were computed from all cases with determinate data on receipt or non-receipt of aid. Averages, however, were computed using only those cases who received the specific type of aid and had a determinate aid amount.

SOURCE: National Center for Education Statitics. National Postsecondary Student Aid Study: 1996--Field Test Methodology Report (Working Paper Series). Washington, D.C: Author, July 1996.

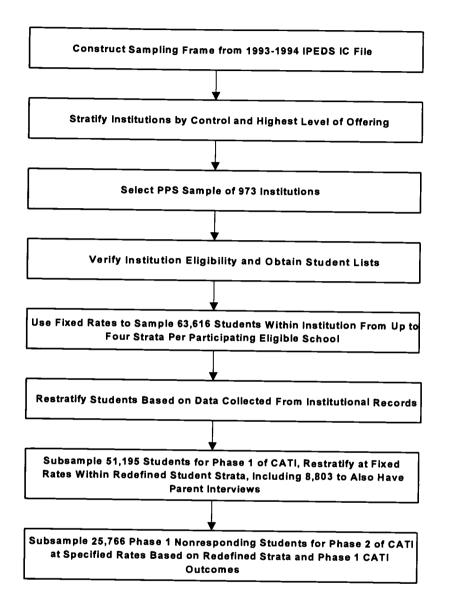
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<sup>&</sup>lt;sup>a</sup>Actual computation from NPSAS:93 CADE data.
<sup>b</sup>Computed using values obtained from NPSAS:93 data, but imposing NPSAS:96 institutional and student sample sizes. <sup>c</sup>Percentage reflects ratio (before rounding) of the difference (between 3- and 2-stage estimates) to the 3-stage estimate.

Figure A.1--Schematic of sequential NPSAS:96 sampling operations



Given these student sample size goals, it was determined that the survey should be based on approximately 850 participating institutions. Based on on projected institutional eligibility and participation rates obtained in prior NPSAS implementations and the NPSAS:96 field test, an initial sample of 973 institutions was selected to yield at least the targeted 850 eligible and participating schools.

Table A.3—Desired total numbers of sample students by institutional stratum and type of student

			Student stratı	ım	
Institutional stratum	Total	Potential FTBs	Other undergraduates	Graduate students	First- Professional students <sup>a</sup>
Total	59,509	22,677	23,908	9,924	3,000
Public, less-than-2-year	1,674	1,575	99	†	†
Public, 2-year	7,761	4,345	3,416	+	†
Public, 4-year, non-doctorate	9,656	2,896	4,860	1,900	†
Public, 4-year, doctorate	13,043	2,471	5,685	3,803	1,084
Private, not-for-profit, less-than-4-year	2,301	1,485	816	+	†
Private, not for profit, non-doctorate	7,918	2,528	3,490	1,900	†
Private, not for profit, 4-year, doctorate	10,691	2,588	4,031	2,198	1,874
Private, not-for-profit, less-than-2-year	3,455	3,318	137	†	†
Private, for-profit, 2-year or more <sup>a</sup>	3,010	1,471	1,374	†	†

Entries do not sum to total because a small sample of graduate and first-professional students was expected from private, for-profit institutions.

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<sup>†</sup>Not applicable.

#### III. The Institutional Sample

The target population for NPSAS:96 includes nearly all postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Specifically, to be eligible for NPSAS:96 an institution is required, during the 1995-96 academic year, to:

- offer an educational program designed for persons who have completed secondary education; and
- offer more than just correspondence courses; and
- offer at least one academic, occupational, or vocational program off study lasting at least 3 months or 300 clock hours; and
- offer courses that are open to more than the employees or members of the company or group (e.g., union) that administers the institution; and
- be located in the 50 states, the District of Columbia, or Puerto Rico; and
- be other than a U.S. Service Academy (which are not eligible for this financial aid study because of their unique funding/tuition base).

Institutions providing only avocational, recreational, or remedial courses or only in-house courses for their own employees are excluded. The listed eligibility requirements are consistent with those used in previous NPSAS implementations.

# A. Sample Frame Construction

The institution-level sampling frame for NPSAS:96 was constructed from the 1993-94 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics (IC) file. This data base is considered to provide nearly complete coverage of the institutions in the target population. Listings include: (a) all institutions whose primary purpose is the provision of postsecondary education; (b) all branches of colleges, universities, and other institutions, as long as the branch offers a full program of study (not just courses); (c) free-standing medical schools, as well as schools of nursing, schools of radiology, etc., within hospitals; and (d) schools offering occupational and vocational training with the intent of preparing students for work (e.g., a modeling school training for professional modeling--not just a charm school). The IPEDS files do not include: (a) schools not open to the general public (i.e, training sites a prisons, military installations, corporations); (b) hospitals offering internships or residency programs only; or hospitals that only



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offer training as part of a medical school program at an institution of higher education; (c) organizational entities providing only noncredit continuing education (CEUs); (d) schools whose only purpose is to prepare students to take a particular test, (e.g., CPA examination or Bar exams); or (e) branch campuses of U.S. institutions in foreign countries.

The IPEDS IC file exclusions, themselves, eliminate some categories of ineligible institutions; however, additional deletion from this file was required. Starting with the 10,651 "institutions" on this database, records were deleted to yield a sampling frame containing 9,468 institutions *appearing* to be eligible for NPSAS:96 based on their 1993-94 IPEDS IC data. Deletions included: (1) administrative units; (2) U.S. Service academies; (3) schools outside of U.S. and Puerto Rico; (4) institutions offering no programs of at least 300 content hours, six semesters/trimesters, or 12 quarter hours and for which the highest level of offering was a certificate or diploma of less than one academic year; (5) Institutions offering only correspondence courses; and 12 institutions with reported, non-imputed zero enrollment for the 1992-93 academic year.

Because enrollment data were needed to compute measures of size for sample selection, IPEDS "unduplicated count" enrollment data were edited and/or imputed to eliminate missing data. Missing graduate and first-professional enrollments were set to zero for institutions that did not offer that level of instruction. For institutions that provided only undergraduate instruction, missing undergraduate enrollment was obtained from the fall enrollment variables, if those were nonmissing. If summer session enrollment was reported and flagged as not included in the unduplicated head counts, it was added to the unduplicated head counts. Finally, sets of records were identified for which the enrollment data either: (a) were reported with another institution's, or (b) contained combined data. In such cases, the combined enrollment data were allocated equally to all institutions in the set. For the remaining 108 records with missing enrollment data, imputation classes (defined by institutional sector (level and control) and first-professional offering (yes or no), were created and missing enrollment data were imputed for such cases as the imputation class mean. This approach avoids imputing unusually large or unusually small enrollments.

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The remaining institutions were then partitioned into nine institutional strata based on institutional control and highest level of offering:

- (1) Public, less-than-2-year;
- (2) Public, 2-year;
- (3) Public, 4-year, non-doctorate;
- (4) Public, 4-year, doctorate;
- (5) Private, not-for-profit, less-than-4-year;
- (6) Private, not-for-profit, 4-year, non-doctorate;
- (7) Private, not-for-profit, 4-year, doctorate;
- (8) Private, for-profit, less-than-2-year; and
- (9) Private, for-profit, 2-year or more.

A stratified sample of 973 institutions was then selected with probabilities proportional to size (pps); some of these institutions subsequently proved to be ineligible and others failed to participate.

# B. Selecting Sample Institutions

It was necessary to allocate the student sample to the separate applicable institutional (defined above) and student sampling strata. The student sampling strata used were:

- (1) potential first-time, beginning students (FTBs)
- (2) other undergraduate students.
- (3) graduate students; and
- (4) first-professional students.

In determining the allocation, the below listed notation is used:

- (1) r = 1, 2, ..., 9 indexes the previously defined institutional strata;
- (2) s = 1, 2, 3, 4 indexes the previously defined initial student strata;
- (3) j = 1, 2, ..., J(r) indexes the institutions within stratum "r;"



- (4)  $M_{rs}(j)$  = number of students enrolled during the NPSAS year who belong to student stratum "s" at the j-th institution in institutional stratum "r;"
- (5)  $m_{rs}$  = number of students to be selected from student stratum "s" within the r-th institutional stratum (referred to henceforth as student stratum "rs"); and
- (6)  $\pi_r(j)$  = probability of selecting the j-th institution in institutional stratum "r."

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

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

where

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

The initially computed stratum-level student sampling rates,  $f_{\rm rs}$  (used to define institution measures of size) are shown in **Tables A.4 and A.5.** Table A.4 presents the sampling rates for the three student domains consisting of undergraduate, graduate, and first-professional students based on the 1993-94 IPEDS IC file counts and the required sample sizes previously presented in Table A.3. The IPEDS files do not provide separate counts for "potential FTB" students; consequently, the partitioning of total undergraduate enrollment into potential FTBs and other undergraduate students was modeled to arrive at the sampling rates for these strata that are shown in Table A.5. The assumptions used to divide the undergraduate student totals into the two sampling strata was conditional on institutional level.

- For less than-2-year institutions, 75 percent of the undergraduate students were assumed to be first-year students, and 90 percent of these first-year students were expected to be classified by the institutions (for sample selection) as potential FTBs.
- For 2-year institutions, 50 percent of the undergraduate students were modeled as first-year students, and 85 percent of those as being classified as potential FTBs.
- For 4-year institutions, the model assumed 30 percent of the undergraduate students would be first-year students and that 75 percent of those would be classified as potential FTBs.



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Table A.4—Student sampling rates used in determining measures of size by institutional stratum and type of student

	Undergra	Undergraduate students	ents	Gra	Graduate students	ents	First-pr	First-professional students	students
Institutional stratum	Size of universe <sup>a</sup>	Sample size <sup>b</sup>	Sampling rate	Size of universe	Sample size <sup>b</sup>	Sampling rate	Size of universe	Sample size <sup>c</sup>	Sampling rate
Total	20,295,890	46,585	0.0023	2,523,029	9,924	0.0039	334,838	3,000	06000
	420,218	1,674	0.0040	+	+	+	-	+	+
2. Public, 2-year	9,732,504	7,761	0.0008	+	+	+-	+-	+	+
3. Public, 4-year, non-doctorate	2,365,866	7,756	0.0033	455,236	1,900	0.0042	+-	+	
4. Public, 4-year, doctorate	3,484,229	8,156	0.0023	1,099,384	3,803	0.0035	120,981	1,084	0.0000
	269,512	2,301	0.0085	+	+	+-	+	+	+
6. Private, not-for-profit, 4-year, non-doctorate	1,646,320	6,018	0.0037	297,523	1,900	0.0064	+	+	+
7. Private, not-for-profit, 4-year, doctorate	1,105,601	6,619	0.0060	635,349	2,198	0.0035	209,155	1,874	0.0000
								_	_
8. Private, for-profit, less-than-2-year	697,373	3,455	0.0050	+	+-	+	+	+	+
9. Private, for-profit, 2-year or more c	574,267	2,845	0.0050	35,537	+	0.0035	4,702	+	68000
							1		

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<sup>&</sup>lt;sup>a</sup>Based on 1993-94 IPEDS IC file.
Inflated to account for ineligible students.
<sup>C</sup>Entries do not sum to total because a small sample of graduate and first-professional students was expected from private, for -profit institutions.
†Not applicable.

Table A.5—Sampling rates used in determining measures of size for potential FTB and other undergraduates by institutional stratum

					•	
	Pote	Potential FTB's	S	Other U	Other Undergraduates	lates
		Sampl				_
	Size of		Sampling	Size of	Sample	Sampling
Institutional stratum	universe	sizeb	rate	universe	size <sup>b</sup>	rate
	7,167,463	20,561	0.0029	13,128,427	25,982	0.0020
1 Otal 1 Public less-than-2-vear	283,647	1,278	0.0045	136,571	452	0.0033
2. Public. 2-year	4,136,314	3,666	6000.0	5,596,190	4,053	0.0007
3. Public, 4-year, non-doctorate	532,320	2,849	0.0054	1,833,546	4,865	0.0027
4. Public, 4-year, doctorate	783,952	2,996	0.0038	2,700,277	5,116	0.0019
reals hand the state of the state of	134,585	1,306	0.0097	134,927	1,094	0.0081
5. Private, not-10t-profit, 1535-utail-t-year	370,422	2,210	0900'0	1,275,898	3,775	0.0030
6. Frivate, not-for-profit, 4-year, doctorate	248,760	2,431	0.0098	856,841	4,152	0.0048
o n-:to for marefit lace-than 2 wear	470,727	2,474	0.0053	226,646	186	0.0043
8. FIIVate, 101-profit, 1535-titair 2-3 cm.	206,736	1,351	0.0065	367,531	1,494	0.0041
2. 1111aus, 101 profits = 3 cm c						

<sup>a</sup>Based on 1993-94 IPEDS IC file, assuming:

Less-than-2-year: 75 percent of undergraduates are first-year and 90 percent of those are potential FTBs;

2-year: 50 percent of undergraduates are first-year and 85 percent of those are potential FTBs; 4-year: 30 percent of undergraduates are first-year and 75 percent of those are potential FTBs.

<sup>b</sup>Inflated to account for ineligible students.

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

$$S_r(j) = \sum_{s=1}^4 f_{rs} M_{rs}(j),$$

which is the number of students that would be selected from the j-th institution if all institutions on the frame were to be sampled.

An independent sample of institutions was selected for each institutional stratum using Chromy's² sequential, pmr sampling algorithm to select institutions with probabilities proportional to their measures of size. However, rather than allow multiple selections of sample institutions, those with expected frequencies of selection greater than unity (1.00) were selected with certainty. (By precluding institutions with multiple selections at the first stage of sampling, it was unnecessary to select multiple second-stage samples of students.) The remainder of the institutional sample was selected from the remaining institutions within each stratum. Therefore, the probability of selection for the j-th institution in institutional stratum "r" is given by

$$\pi_{r}(j) = \begin{cases} \frac{n_{r}^{*} S_{r}(j)}{S_{r}(+)} & \text{for non-certainty selections,} \\ 1 & \text{for certainty selections,} \end{cases}$$

where

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

and  $n_r^*$  is the number of non-certainty selections from stratum "r." The sampling algorithm was implemented with a random start for each institutional stratum to ensure the positive pairwise probabilities of selection that are needed for proper variance estimation.<sup>3</sup> The numbers of certainty and uncertainty schools selected, within each of the nine institutional strata, are shown in **Table A.6.** 

<sup>&</sup>lt;sup>3</sup>c.f., Williams, R.L. and Chromy, J.R. (1980). "SAS Sample Selection MACROs." Proceedings of the fifth Annual SAS Users Group International Conference, 392-396.



<sup>&</sup>lt;sup>2</sup>Chromy, J.R. (1979). "Sequential Sample Selection Methods." Proceedings of the American Statistical Association Section on Survey Research Methods, 401-406.

Table A.6 —Number of certainty and non-certainty institutions sampled, by institutional stratum

			Sample in	stitutions
	Institutional stratum	Total	Certainty	Non- certainty
Tot	al	973	131	842
1	Public, less-than-2-year	39	10	29
2.	Public, 2-year	165	7	158
3.	Public, 4-year, non-doctorate	125	14	111
<i>4</i> .	Public, 4-year, doctorate	124	29	95
5.	Private, not-for-profit, less-than-4-year	56	6	50
6.	Private, not-for-profit, 4-year, non-doctorate	120	2	118
7.	Private, not-for-profit, 4-year, doctorate	143	54	89
8.	Private, for-profit, less-than-2-year	120	2	118
9.	Private, for-profit, 2-year or more	81	7	74

Stratum reflects institutional categorization as determined from the 1993-94 IPEDS IC file; some errors in this classification were uncovered when institutions were contacted.

Within each of the "r" institutional strata, additional implicit stratification was accomplished by sorting the stratum "r" sampling frame in a serpentine manner<sup>4</sup> by: (a) institutional level of offering (where strata had been collapsed one level); (b) the IPEPS IC-listed OBE Region (with Alaska and Hawaii moved to Region 9) with Puerto Rico; and (c) the institution measure of size. The objectives of this additional, implicit stratification were to approximate proportional representation of institutions on these measures. **Table A.7**, shows that the geographic distribution of the sample is consistent with that of the subset of institutions from which the sample was selected.

<sup>&</sup>lt;sup>4</sup>c.f., Chromy, J.R. (1981). "Variance Estimators for a Sequential Sample Selection Procedure." In: D. Krewski, R. Platek, and J.N.K. Rao (Eds.), Current TopIMS in Survey Sampling. New York: Academic Press, 329-347.



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Table A.7— Distribution of NPSAS:96 institutional sample by OBE region

	Sample in	Sample institutions		IPEDS institutions <sup>b</sup>	
OBE region <sup>a</sup>	Number	Percent	Number	Percent	
1. New England	62	6.4	542	5.7	
2. Mid-East	181	18.6	1,557	16.4	
3. Great Lakes	150	15.4	1,486	15.7	
4. Plains	70	7.2	801	8.5	
5. Southeast	194	19.9	2,105	22.2	
5. Southwest	89	9.1	878	9.3	
Rocky Mountains	.34	3.5	322	3.4	
B. Far West	170	17.5	1,622	17.1	
Outlying areas	23	2.4	155	1.6	

<sup>1</sup> includes CT, ME, MA, NH, RI, VT; 2 includes DE, DC, MD, NJ, NY, PA; 3 includes IL, IN, MI, OH, WI; 4 includes IA, KS, MN, MO, NE, AND, SD; 5 includes AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV; 6 includes AZ, NM, OK, TX;
7 includes CO, ID; 7 includes MT, UT, WY; 8 includes AK, CA, HI, NV, OR, WA; and 9 includes PR.

Counts obtained from the 1993-94 IPEDS IC file, subsetted to those from which the sample was selected.

# IV. The Student Samples

The initial student sample was selected from lists provided by 836 of the 900 institutions (from the original sample) that proved to be eligible. In addition to this initial (basic) student sampling, additional student subsampling was implemented in NPSAS:96. Because of budgetary constraints, only a subsample of students were selected for interviewing; moreover, interviewing was conducted in two phases, and only a subsample of first phase nonrespondents were selected for the second interviewing phase. Additionally, certain students were selected for whom an interview with their parents would be required to obtain certain data elements. Finally, a small subsample of students was selected for reliability interviews.



## A. Basic Student Sample

The postsecondary students eligible for NPSAS:96 were those who attended a NPSAS-eligible institution during the previously defined NPSAS year and who were:

- enrolled in *either* (a) an academic program; (b) at least one course for credit that could be applied toward fulfilling the requirements for an academic degree; or (c)occupational or vocational program that required at least 3 months or 300 clock hours of instruction to receive a degree, certificate, or other formal award;
- not concurrently enrolled in high school; and
- not enrolled solely in a GED or other high school completion program.

## 1. Construction of Initial Sampling Frames

Each of the 900 sampled institutions that were verified to be eligible for NPSAS:96 was asked to provide lists of all its students who satisfied all the NPSAS eligibility conditions, preferably nonduplicated, machine-readable lists (diskette, magnetic tape, or electronic mail file), together with identifying and classifying information (see section 2.3.2 below). Although machine-readable files were preferred, the preferences of sample institutions were accommodated, and whatever type(s) of student list(s) they were able to provide were accepted. (Final 1995-96 enrollment lists were available from some institutions as early as February, 1996; however, other institutions could not provide final lists until August, 1996.) Separate, unduplicated lists (in which each student's name appears only once) were requested for first-time beginning other undergraduate, graduate, and first-professional students (the basic student strata) were requested of those providing hard copy lists. As expected, however, many institutions sent separate lists for each term or course of instruction; in which cases an individual student's name could appear on more than one list. In such cases, sampling procedures were used to "unduplicate" the sample, to ensure that each student received only one chance of selection.

## 2. Student Sample Selection

Students were sampled on a flow basis as student lists were received. Stratified systematic sampling was used to ensure comparable sampling procedures for both hard-copy and



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machine-readable lists. For each institution, the student sampling rates, rather than the student sample sizes, were set to fixed values:

- to facilitate sampling students on a flow basis as student lists were received;
- to facilitate the procedures used to "unduplicate" the samples selected from (duplicated) hard-copy lists; and
- because sampling at a fixed rate based on the overall stratum sampling rates and the
  institutional probabilities of selection results in approximately equal overall
  probabilities of selection within the ultimate institution-by-student strata.

Machine-readable lists were unduplicated by sorting on the student ID number and deleting duplicates prior to sample selection. In the case of duplicated hard-copy lists, a stratified systematic sample was selected from each list provided (typically separate lists by term). For unduplication, all students in the sample selected from the fall list were retained for the sample, and the *samples* selected from all other lists were "unduplicated" against the fall list. (The fall term was given precedence in this process for comparability with NPSAS:87, in which only fall enrollees were sampled.) If the institution did not have standard terms, other orderings of the student lists were used to achieve unduplication of the sample. Any students sampled from the next list who were on the full fall list were deleted since they already had a chance of selection from the fall list. In the same manner, samples from subsequent lists were compared to the full lists of *all* lists from which previous samples had been drawn.

After the sample of students had been selected for an institution, the social security numbers of the sample students were compared to those of students who had already been selected from other institutions. When duplicates were detected, the duplicate was eliminated from the sample from the current institution. Multiplicity adjustments in the sample weighting (see below, Chapter 6) accounted for the fact that any students who attended more than one institution in the NPSAS population had more than one chance of selection.

The development of student sampling rates within student stratum rs (i.e., the rth institutional stratum and the s<sup>th</sup> student stratum within institutional stratum) were previously discussed in section



III.B, and the notation used in that development will be used here. For graduate and first-professional students, these overall student sampling rates were shown in Table A.4. However, for potential FTB students and other undergraduate students, the data from the NPSAS:96 field test (as adjusted to accommodate the more refined full-scale study rules for institutional identification of potential FTBs, which information was unavailable when the institutional sample was selected) were used to update previous assumptions regarding the proportion of undergraduate students who would be classified by the institutions as potential FTBs and the proportion of potential FTBs who would ultimately be determined to be actual FTBs. Revised estimated percentages of undergraduate students who would be classified as potential FTBs by the sample institutions and percentages of those who would ultimately be classified as true FTBs are shown in **Table A.8**. These estimates were used to revise student sampling rates for the two undergraduate sampling strata, shown in **Table A.9**.

Table A.8—Revised sampling design assumptions for undergraduate students strata, based on NPSAS:96 field test

	Institutional stratum	Percent	Percent of undergraduates who are potential FTBs <sup>b</sup>	Percent of potential FTBs who actually are FTBs
1.	Public, less-than-2-year	91	90	60
12.	Public, 2-year	93	40	60
3.	Public, 4-year, non-doctorate	98	18	90
4.	Public, 4-year, doctorate	98	13	85
5.	Private, not-for-profit, less-than-4-year	94	45	65
6.	Private, not-for-profit, 4-year, non-doctorate	97	22	80
7.	Private, not-for-profit, 4-year, doctorate	97	18	80
8.	Private, for-profit, less-than-2-year	94	95	65
9.	Private, for-profit, 12-year or more	94	45	65

Based primarily on NPSAS:93 experience.

Based on NPSAS:96 Field Test Results, modified to account for more precise full-scale study rules for institutional identification of FTBs.





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Table A.9—Revised potential FTB and other undergraduate sampling rates by institutional stratum

	Po	Potential FTBs			Other undergraduates		
Institutional stratum	Estimated size of universe	Sample size <sup>b</sup>	Sampling rate	Estimated size of universe	Sample size <sup>b</sup>	Sampling rate	
Total	6,757,074	22,667	0.0034	13,538,816	23,908	0.0018	
1. Public, less-than-2-year	378,196	1,575	0.0042	42,022	99	0.0024	
2. Public, 2-year	3,893,002	4,345	0.0011	5,893,502	3,416	0.0024	
3. Public, 4-year, non-doctorate 4. Public, 4-year, doctorate	425,856	2,896	0.0068	1,940,010	4,860	0.0025	
year, doctorate	452,950	2,471	0.0055	3,031,279	5.685	0.0019	
5. Private, not-for-profit, less-than-4-year	124,948	1,485	0.0119	144,564	816	0.0056	
6. Private, not-for-profit, 4-year, non-doctors	ite 362,190	2,528	0.0070	1,284,130	3,490	0.0027	
7. Private, not-for-profit, 4-year, doctorate	199,008	2,588	0.0130	906,593	4,031	0.0044	
8. Private, for-profit, less-than-2- year	662,504	3,318	0.0050	34,869	137	0.0039	
9. Private, for-profit, 2-year or more	258,420	1 <u>,</u> 471	0.0057	315,847	1,374	0.0044	

Based on 1993-94 IPEDS student counts and NPSAS:96 field test experience, as modified to account for the more precise full-scale study rules for institutional identification of FTBs.

Inflated to account for ineligible students.

For the unconditional probability of selection to be a constant for all eligible students in stratum "rs," the overall probability of selection should be the overall student sampling fraction,  $f_{rs}$ ; i.e., we must require that

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

or equivalently,

$$m_{rs}(j) = f_{rs} \frac{M_{rs}(j)}{\pi_{r}(j)}$$

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Thus, the conditional sampling rate for stratum "rs," given selection of the j-th institution, becomes

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

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

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

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

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

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

then requires

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

or equivalently,

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

where



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

Since it was necessary to set student sampling rates before complete information on institutional eligibility and response status was available,  $\hat{M}_{rs}$  was calculated as

follows:

$$\hat{M}_{rs} = \sum_{j \in S} \frac{M_{rs}(j)}{\pi_{r}(j)} * E_{r} * R_{r} * E_{rs} ,$$

where "S" denotes the set of all sample institutions,

 $E_r$  = the institutional eligibility factor for institutional stratum "r,"

 $R_r$  = the institutional response factor for institutional stratum "r,"

 $E_{rs}$  = the student eligibility factor for student stratum "rs."

These factors were the proportions of institution or students, respectively, expected to be eligible or responding within the defined strata. Since this determination was made after eligibility status had already been determined for some institutions, values of 0 (known not eligible) or 1 (known eligible) were used, if known at that time.

Initial student sampling rates were calculated in this manner for each sample institution; these rates were designed to achieve equal probabilities of selection within the ultimate institution-by-student sampling strata. However, these rates were sometimes modified for reasons listed below.

- The student sampling rates were increased, as needed, so that the sample size achieved at each sample institution would be at least 40 sample students, where possible (The reason for this constraint was to facilitate obtaining at least 30 responding students for most participating institutions, enabling NCES to send a report to the institution regarding its sample students, as a "Thank You" for participation without violating NCES confidentiality guidelines).
- The student sampling rates were decreased if the sample size was more than 50 greater than the institution had been told to expect (This was to facilitate continued participation by the institutions for CADE data abstraction).
- The sample yield was monitored throughout the several months during which student lists were received, and the student sampling rates were adjusted periodically to ensure that the desired student sample sizes were achieved.

These adjustments to the initial sampling rates (especially the first two types of adjustments) resulted in some additional variability in the student sampling rates, and, hence, in some increase in survey design effects.

The actual sample sizes achieved in total and within each institutional and student stratum, are shown in **Table A.10**. In general, institutions classified fewer students than expected as potential FTBs; consequently, sampling rates for FTBs were increased to obtain the needed sample yield (For 35 four-year institutions, this rate was increased by selecting a supplemental sample). By comparing Table A.10 with Table A.1, it can be seen that the rate adjustment procedures were generally effective; the overall sample yield was actually greater than expected (63,616 students as compared to the target of 59,509).

Table A.10—Realized student sample, by institutional and student strata

	•	Student stratum				
Institutional stratum	Total	Potential FTBs	Other undergraduates	Graduate students	First- professional students	
Total	63,616	23,612	27,536	9,689	2,779	
1. Public, less-than-2-year	1,662	1,016	646	+	+	
2. Public, 2-year	8,476	4,434	4,042		+	
3. Public, 4-year, non-doctorate	10,891	3,629	5,454	1,805	+	
4. Public, 4-year, doctorate	14,751	3,631	6,228	3,757	1 125	
5. Private, not-for-profit, less-than-4-year	2,507	1,404	1,103	3,737	1,135	
6. Private, not-for-profit, 4-year, non-doctorate	7,734	2,253	3,614	1,857	† •	
7. Private, not-for-profit, 4-year, doctorate	10,668	2,639	4,353	2,049	1,627	
8. Private, for-profit, less-than-2-year	3,414	2,933	481	+	1,02/	
9. Private, for-profit, 2-year or more	3,513	1,673	1,615	221	, 4	

Note: The student sample was drawn from 836 schools determined to be eligible and providing lists.

†Not applicable

#### B. **Student Interview Subsample**

To accommodate budget constraints, the student interview sampling design for NPSAS:96 required subsampling of those eligible students for whom CADE data had been obtained. Because subsampling was necessary, an attempt was made to maximize sample yield (completed interviews) without sacrificing response rates by using a two-phase, nonresponse subsampling design. Previously collected student record data (CADE and CPS) were used to partition the basic student sample into nine strata for the Phase 1 CATI subsampling:

- (1) potential FTBs.
- other undergraduate students who were financial aid applicants; (2)
- other undergraduate students who were not financial aid applicants; (3)
- graduate students who were financial aid applicants; (4)
- graduate students who were not not financial aid applicants; (5)
- first-professional students who were financial aid applicants; (6)
- first-professional students who were not financial aid applicants; **(7)**
- (8) CADE/CPS nonrespondents; and
- students identified as NPSAS-ineligible based on CADE data. (9)



<sup>&</sup>lt;sup>a</sup>Totals shown include a small number of first-professional students, not shown separately.

No students were selected from the last two listed strata; however, students were subsampled for CATI at fixed positive rates within each of the remaining (first seven) strata (potential FTBs and federal aid applicants were selected with certainty).

When CPS matching and CADE data collection were completed for a sample institution, the students who had not been identified as ineligible through previously collected data, and for whom such previously collected data were sufficient, were considered eligible for CATI. For the few institutions that either provided no records data or provided them only after the interview subsamples, this determination of eligibility was based on CPS data alone. Basically, all eligible sample students from schools that provided institutional records data were eligible for Phase 1 interviewing. Among the institutions that did not provide institutional record data (or provided them late), most sample students with CPS matches were eligible for interviews. The weight adjustment for records data/CPS nonresponse accounts for the fact that only students with CPS matches (aid applicants) were eligible for interviewing in these institutions (see Chapter 6).

In defining the seven sampling strata from which students were eligible, students were classified as federal aid applicants if either: (a) a match was obtained for the student in the CPS search of 1995-96 federal aid applications, or (b) a Student Aid Report (SAR) was found at the school during record abstraction Students were classified as undergraduate, graduate, or first-professional students based on their sampling strata with any appropriate revisions based on the institutional records data for their last term of enrollment during the NPSAS year (The last term was used for consistency with the sampling strata used for the basic student sample).

Students who were classified as undergraduate students at the conclusion of CADE were further classified (modeled) as potential FTBs for this subsampling if: (a) either the records data or the SAR indicated that the student graduated from high school in 1995 or 1996; (b) the CPS year-in-school variable indicated that the student was an FTB; or (c) the student's high school



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graduation year and CPS year-in-school variables were both missing or had undetermined levels, but the student was 18 years of age or younger on December 31, 1995 (i.e., the student's year of birth was 1977 or later). All *other* students who were classified as undergraduate students at the conclusion of record abstraction were classified for student interview subsampling as indicated below.

- If they were not sampled as potential FTBs, they were classified as other undergraduate students for CATI sampling.
- If they were sampled as potential FTBs, they also were classified as potential FTBs for student CATI sampling unless:
  - the records data indicated that the student was not a first-year student during the first term of enrollment during the NPSAS year,
  - the records data indicated that the student attended the sample institution prior to the NPSAS year, or
  - the records data indicated that the student had transfer credits from another postsecondary institution;
- Otherwise, they were reclassified as other undergraduate students.

The students, within a particular institution, were then subsampled for Phase 1 of interviewing as shown in **Table A.11**. Potential FTBs and federal aid applicants were selected for Phase 1 interviewing with certainty. All potential FTBs were also retained for both Phase 1 and Phase 2 because of the need to obtain as many interviews with FTBs as possible for the BPS longitudinal follow-up study. For Phase 1 (and subsequent Phase 2), subsampling rates in other student sampling strata were set to yield an appropriate compromise between high sample yield (high Phase 1 sampling rates and low Phase 2 sampling rates) and low variance inflation (comparable Phase 1 and Phase 2 sampling rates).



Table A.11—Phase 1 student interview subsampling

Student interview sampling stratum <sup>a</sup>	Number eligible for phase 1 <sup>b</sup>	Sampling rate <sup>c</sup>	Number selected
All Students	59,593	0.859	51,195
Potential FTB	20,555	1.000	20,555
Other undergraduate, federal aid applicant	13,758	1.000	13,758
Other undergraduate, not federal aid applicant	13,554	0.703	9,532
Graduate student, federal aid applicant	2,065	1.000	2,065
Graduate student, not federal aid applicant	7,202	0.416	2,999
First-professional, federal aid applicant	1,893	1.000	1,893
First-professional, not federal aid applicant	566	0.694	393

<sup>&</sup>lt;sup>a</sup> Reflects student rrclassification as a result of records data.

Phase 1 of CATI was defined to end when six telephone calls had been attempted without obtaining a completed interview, or the student:

- or his/her parent had been interviewed;
- was determined to be ineligible for NPSAS;
- initially refused to participate;
- required intensive tracing procedures, or
- was determined to be in a special population (i.e., deaf or language barrier).

All students for whom the sixth call in Phase 1 resulted in a "hard" appointment or for whom a partial interview had been completed (with either the sample student or the student's parent—see Chapter 3) were retained for Phase 2 with certainty, as were all students in the potential FTB stratum. The remaining Phase 1 nonrespondents, who had not been determined ineligibles or exclusions during Phase 1, were subsampled for Phase 2, using specified rates. The numbers of eligible cases for Phase 2 numbers of certainty selections, sampling rates for noncertainty selections, and total Phase 2 selections are shown in **Table A.12**.

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<sup>&</sup>lt;sup>b</sup> Excludes 1,593 CADE nonrespondents and 2,403 sample members determined ineligible for NPSAS, from records data.

<sup>&</sup>lt;sup>c</sup> Reflects average rate across all sequential samples implemented.

Table A.12—Phase 2 student interview subsampling

Student interview sampling stratum <sup>a</sup>	Number eligible <sup>b</sup>	Certainty selection	Sampling rate <sup>c</sup>	Total selection
All Students	37,814	23,402	0.262	27,178
Potential FTB	14,248	14,248	†	14,248
Other undergraduate, federal aid applicant	10,515	4,312	0.264	5,952
Other undergraduate, not federal aid applicant	7,544	2,733	0.261	3,989
Graduate student, federal aid applicant	1,493	598	0.287	855
Graduate student, not federal aid applicant	2,220	864	0.255	1,210
First-professional, federal aid applicant	1,479	540	0.213	740
First-professional, not federal aid applicant	320	107	0.362	184

a Reflects student reclassification as a result of records data.

†Not applicable.

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b Excludes Phase 1 respondents and sample members determined to be NPSAS ineligible (N=521) or exclusions (N=57) during

c Reflects average rate across all samples implemented, excluding certainty selections.

## C. Other Student Subsamples

Some additional subsampling of students, was accomplished during the course of NPSAS:96 in order to: (a) complete important gaps in available data about the student's family financial information, or (b) provide the basis for methodological studies.

## 1. Reliability Reinterview Subsample

Among eligible sample members who *completed* the NPSAS:96 interview, a subsample was selected to participate in a reliability reinterview (containing a small subset of the interview items and to be conducted 3 to 4 weeks after the initial interview—see Chapter 3). The random selection algorithm was programmed directly into the CATI instrument so that selected respondents could be informed of their selection and allowed an opportunity to agree to (and schedule) the reinterview or to refuse it at that time.

The selection rate was set to yield a sample of approximately 300 students among the expected respondents during the first 3 months of interviewing; the time factor was based on the built-in delay in administering the reinterview and the need to complete reinterviews within the same time frame as other interviews. Consequently, the sample was obviously most heavily weighted with students: (a) from institutions at which prior sequential operations (initial sampling, record abstraction) were completed earlier, and (b) who completed the first interview relatively early during the data collection period. Since fewer completion than anticipated were experienced during the first 3 months (see Chapter 3), the sample yield during that period was 256 students.

## 2. Parent Interview Subsample

A subsample of the students selected for Phase 1 of student interviewing also were selected to have their parents interviewed, in order to obtain valid data regarding parents' financial resources (typically not well known by the student). The main purpose of the parent interview was to reduce the number of students, especially dependent students, for whom the



NPSAS:96 METHODOLOGY REPORT: APPENDIX A

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parents' income would otherwise have to be imputed. An important historical gap in NPSAS student data has been the income of parents of dependent students who do not apply for financial aid; among those applying for (and/or receiving) aid, these data are usually obtained from existing records.

Another purpose was to collect parent income data for students who had recently become independent students (for the purposes of federal financial aid applications) as a result of recently becoming 24 years old. Parent data for these students will reduce reliance on imputed parent incomes when analyzing the effect that becoming classified as an independent student has on financing postsecondary education.

Consequently, all the students in the three below-listed student sampling strata were selected with certainty for parent interviews.

- Dependent undergraduate students, not receiving federal aid.
- Dependent undergraduate students, receiving federal aid, whose parents' adjusted gross income was missing in CADE.
- Twenty-four and 25-year-old (newly independent) undergraduate students.

The strata were developed at the conclusion of institutional records collection, and the parent interview subsample was identified among those students selected for Phase 1 interviewing. When the student had been selected for parent interview and either a student interview had been completed in Phase 1 or the student had been selected for Phase 2, the parent interview was attempted throughout the remainder of CATI the interview period. The numbers of students selected for parent interviewing in Phase 1 and in Phase 2, are shown in **Table A.13** for each of the three parent sampling strata.



Table A.13—Numbers of students selected for parent interviewing

		Phase 1			Phase 2	e e e e e e e e e e e e e e e e e e e
Parent sampling stratum <sup>a</sup>	Number of students eligible	Number of students selected	Effective sampling rate <sup>c</sup>	Number of students eligible <sup>d</sup>	Number of students selected <sup>e</sup>	Effective sampling rate <sup>f</sup>
Total	9,251	8,803	.952	7,687	6,197	0.806
Dependent undergraduate students not receiving financial aid	4,195	4,117	.981	3,520	2,991	0.850
Dependent undergraduate students, receiving financial aid, whose parents' adjusted gross income was missing from institutional records	1,731	1,710	.988	1,439	1,271	0.856
24- and 25-year-old (newly independent) undergraduate students	3,325	2,976	.895	2,728	1,935	0.709

<sup>&</sup>lt;sup>a</sup>Reflects student reclassification as a result of records data.

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<sup>&</sup>lt;sup>b</sup>This represents all eligible students in defined strata prior to Phase 1 sampling.

<sup>&</sup>lt;sup>c</sup>This rate reflects only the overall Phase 1 student sampling (average rate across all sequential sampling implemented); all students within these defined strata, who were selected for Phase 1, were designated with certainty for parent interview.

<sup>&</sup>lt;sup>d</sup>Excludes Phase 1 respondents and sample members determined to be NPSAS ineligible or exclusions during Phase 1.

<sup>&</sup>lt;sup>e</sup>Includes certainty selections.

<sup>&</sup>lt;sup>f</sup>Reflects average rate across all samples implemented (consequently, this rate includes Phase 2 certainty selections).

# Appendix B **Notification Letters to Sample Members**

Letter to Previous NPSAS Participants B
Letter to "New" NPSAS Institutions B
Letter to NPSAS Institutional Coordinator B-
Letter to Students from Commissioner B-
Letter to Students from Commissioner (Spanish version)
Letter to Parents from Commissioner B-1
Letter to Parents from Commissioner (Spanish version) B-1





# U. S. DEPARTMENT OF EDUCATION OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

NATIONAL CENTER FOR EDUCATION STATISTICS

Dear Chief Administrator:

Your institution has been selected to participate in the 1996 National Postsecondary Student Aid Study (NPSAS:96), a major nationwide study conducted for the U.S. Department of Education of how students and their families finance education after high school. Thank you for your past participation in the study.

Please appoint a NPSAS Coordinator for your institution to help provide information required for successful conduct of this study. The NPSAS Coordinator should be someone who can orchestrate the information gathering between various staff and departments within your school to identify and pull together information on the enrollment status, financial assistance, and demographic characteristics for each student that is sampled. Because your previous coordinator is familiar with NPSAS, we ask that you appoint the same person, if appropriate, and provide the information on the enclosed reply sheet.

The person you appoint as coordinator of the study will be asked to send the enrollment lists/files for all students enrolled in 1995-96 to our contractor, Research Triangle Institute (RTI). After RTI has identified a sample of students from the enrollment lists provided by your coordinator, institutional records data on enrollment status and information on any financial aid data awarded to the sampled students will be collected. Technical staff from RTI will work with your NPSAS institution coordinator to arrange for data collection in an efficient and convenient manner.

During the past year, the National Center for Education Statistics (NCES) tested procedures for the full-scale study, which will include a sample of approximately 950 institutions, 60,000 students, and 10,000 parents. Further details on the data collection procedures, our assurance of confidentiality, a listing of national organizations that have endorsed the study, and estimates of time commitments for your institution are enclosed.

An RTI representative will contact your coordinator to answer any questions and to discuss the best method of data collection for your institution. If you have any questions about the study or procedures involved prior to this contact, please call Educational Analyst, Katy Ong (1-800-334-8571) at RTI or the NCES Project Officer, Drew Malizio (202-219-1448).

Thank you for your continued cooperation and prompt return of the enclosed reply sheet.

Sincerely,

Jeanne E. Griffith Acting Commissioner

WASHINGTON, D.C. 20208-

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# U. S. DEPARTMENT OF EDUCATION OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

NATIONAL CENTER FOR EDUCATION STATISTICS

Dear Chief Administrator:

Your institution has been selected to participate in the 1996 National Postsecondary Student Aid Study (NPSAS:96), a major nationwide study, conducted for the U.S. Department of Education, of how students and their families finance education after high school. I am asking that you appoint a NPSAS coordinator for your institution, and provide the information on the enclosed reply sheet. Your institution's participation in NPSAS:96 is very important to the continued success of this study.

NPSAS was first conducted by the National Center for Education Statistics (NCES) during 1986-87. The second and third cycles of NPSAS, completed during 1989-90 and 1992-93, enhanced the basic data collected to meet more fully the needs of the student financial aid community. The National Education Statistics Act of 1994 authorizes NCES to continue conducting this study in response to the need for information on postsecondary students, including financial aid data.

During the past year, NCES tested procedures for the full-scale study which will include a sample of approximately 950 institutions, 60,000 students, and 10,000 parents. Further details on the data collection procedures, our assurance of confidentiality, a listing of national organizations that have endorsed the study, and estimates of time commitments for your institution are enclosed.

We ask that you appoint as NPSAS Coordinator someone who can orchestrate the information gathering between various staff and departments within your school to identify and pull together information on the enrollment status, financial assistance, and demographic characteristics for each student that is sampled. This person will be asked to send the enrollment lists/files for all students enrolled in 1995-96 to our contractor, Research Triangle Institute (RTI). After RTI has identified a sample of students from the enrollment lists provided by your coordinator, institutional records data on the enrollment status and any financial aid data awarded to the sampled students will be collected. Technical staff from RTI will work with your NPSAS institution coordinator to arrange for data collection in an efficient and convenient manner.

An RTI representative will contact your coordinator to answer any questions and to discuss the best method of data collection for your institution. If you have any questions about the study or procedures involved prior to this contact, please call Educational Analyst, Katy Ong (1-800-334-8571) at RTI or the NCES Project Officer, Drew Malizio (202-219-1448).

Thank you for your cooperation and prompt return of the enclosed reply sheet.

Sincerely,

Jeanne E. Griffith Acting Commissioner

WASHINGTON, D.C.	20208-
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Center for Research in Education

#### Dear NPSAS Coordinator:

The Chief Administrator of your institution has appointed you as Coordinator for the 1996 National Postsecondary Student Aid Study (NPSAS:96). NPSAS is being conducted by Research Triangle Institute (RTI) for the National Center for Education Statistics (NCES) of the U.S. Department of Education. During 1996, NCES will conduct the fourth cycle of NPSAS, a major study on how students and their families finance postsecondary education. In response to the continuing need for the data provided by NPSAS, Congress has mandated that NCES conduct this study periodically; prior NPSAS studies were conducted in 1987, 1990, and 1993.

The Chief Administrator of your institution was sent a packet of information describing the study's background, purposes, and processes. In the enclosed binder, we have provided copies of the information the Chief Administrator was sent as well as more detailed information about the specific processes of the study and your important role as the NPSAS Coordinator.

Information from institutions will be gathered in two stages. The first step is to obtain an enrollment file from which RTI will select a sample of students. After RTI has determined a sample of students from your institution, data abstraction of student records will begin. Abstracting student data involves entering data such as locating, demographic, and financial aid information from the sampled students' records using a Computer Assisted Data Entry (CADE) software program. Most NPSAS Coordinators will prefer to delegate this task to an appropriate institution staff member or to allow an RTI field staff member perform this work. To assist you in these tasks, the following tems are enclosed:

- General information that describes the institutional component of the study;
- A Coordinator Response Sheet to be returned to RTI;
- Specifications for preparing enrollment files;
- Administrative aids:
  - A Transmittal Sheet for returning the enrollment files;
  - A prepaid Federal Express label for returning the enrollment files; and
  - Labels to be attached to enrollment files for identification purposes.

Please return the completed Coordinator Response Sheet to us at your earliest convenience. You may either FAX it to us or return it to us by mail in the enclosed postage paid envelope.

A member of our staff will be contacting you shortly to verify that you have received this package, to discuss options for providing the enrollment files and the record abstraction process (CADE), and to answer any questions that you may have about the enclosed materials.

If you have any questions prior to our conversation, please do not hesitate to call Katy Ong at 1-800-875-2050. Thank you again for your cooperation.

Sincerely,

John Riccobono, Ph.D. Project Director Research Triangle Institute

3040 Cornwallis Road • Post Office Box 12194 • Research Triangle Park, North Carolina 27709-2194 USA Telephone 919 541-6334 • Fax 919 541-6854

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# U. S. DEPARTMENT OF EDUCATION OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

NATIONAL CENTER FOR EDUCATION STATISTICS

Spring 1996

Dear Student:

You have been selected to participate in an important study of students who continued their education beyond high school. Research Triangle Institute (RTI), a nationally recognized research company located in North Carolina is conducting the 1996 National Postsecondary Student Aid Study (NPSAS:96) for the United States Department of Education. NPSAS collects information on student demographics, family income, education expenses, employment, living expenses, education aspirations and how students and their families meet the costs of their education beyond high school. In addition to describing characteristics of students enrolled in postsecondary education, the results will be used, in part, to help determine future federal student financial aid policy.

Because only about one of every 1500 students who were enrolled during 1995-96 has the opportunity to participate in this study, your experiences and opinions are very important to its success. Your responses will represent thousands of students like yourself.

An interviewer from RTI will contact you by telephone sometime in the near future to ask you some questions about your postsecondary education experiences, especially for the 1995-96 school year. Based on prior studies, you can shorten the interview time if you have any documents about your income and any financial aid you may have received during 1995-96 available at the time of the interviewer's call.

Students enrolled in less-than-2-year institutions, community colleges, 4-year colleges, and major universities in the United States and Puerto Rico, including those who do not receive financial aid and those who do receive aid participate in NPSAS. If you did not receive financial aid, we would like to know how you met the costs of attending school during the 1995-96 year. For example, did you take out any private loans, receive any employer tuition assistance or parental support? If you received student financial aid, did you receive enough to meet your education expenses? If not, did you borrow additional money from relatives? Your data, when combined with that of all students participating in the study, will be used by policymakers when they consider how much federal grant, loan, and work-study aid will be available in the future.



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The time required to gather the information needed and complete the telephone interview is estimated to vary from 20 to 45 minutes, with an average of about 35 minutes per telephone interview. If you have any comments concerning the accuracy of the time estimates or suggestions for improving the collection of information, write directly to: U.S. Department of Education, National Center for Education Statistics, NPSAS Project Officer #1850-0666, 555 New Jersey Ave NW D.C. 20208.

I want to assure you that NCES and its contractors adhere to the highest standards in protecting the privacy of individuals involved in the studies it undertakes. Only a limited number of researchers may be authorized by NCES to access information that may identify individuals. They may use the data only for statistical purposes and are subject to fines and imprisonment for misuse. Data will be combined to produce statistical reports for Congress and others. No individual data that links your name, address, telephone number, or student identification number with your responses will be reported. Your participation in NPSAS is strictly voluntary; however, your responses are necessary to make the results of this study accurate and timely.

Additional information explaining how you were selected and some of the information we have collected from the school you attended during 1995-96 is enclosed. If you have any questions about this study prior to your call from RTI, or if you would like to set up an appointment to be interviewed, please call Marty Nash at RTI. The toll-free number is 1-800-472-6094.

Thank you very much. Your cooperation is greatly appreciated.

Sincerely,

Jeanne G. Griffith

**Acting Commissioner** 

NOTE: Arrangements have been made to allow the participation of persons who are hearing or speech impaired. Call us (toll free) at 1-800-647-9659 (TDD).



Enclosure

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## [Letter to Students, from Commissioner--Spanish version]



# U. S. DEPARTMENT OF EDUCATION OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

NATIONAL CENTER FOR EDUCATION STATISTICS
Primavera, 1996

Estimado Estudiante.

Usted ha sido seleccionado para tomar parte en un estudio importante acerca de los estudiantes que continuaron su educación depués de terminar la escuela superior o la "high school". Research Triangle Institute (RTI), localizada en el estado de Carolina del Norte en los EE.UU., y reconocida a través del país como una compañía encuestadora, está llevando a cabo el Estudio Nacional Sobre Asistencia Económica de Estudiantes de Pos-Secundaria 1996 (NPSAS:96) el cual es parrocinado por el Departamento de Educación Federal de los EE.UU. El estudio recolecta información sobre varios temas tales como: estadísticas demográficas sobre los estudiantes, ingresos de familia, gastos educacionales, empleo, costo de vida, aspiraciones educacionales y los medios por los cuales los estudiantes y sus familias logran pagar el costo de su educación pos-secundaria. Además de proveer las características de los estudiantes que esten matriculados en escuelas pos-secundarias, los resultados serán usados, en parte, para determinar el futuro de la política federal acerca de los recursos para ayuda financiera.

Dado que solamente 1 de cada 1,500 de los estudiantes que estuvieron matriculados durante el año escolar 1995-96 tendrán la oportunidad de participar en este estudio, la información que usted nos provea sobre sus experiencias y opiniones será muy importante para el éxito del estudio. Sus respuestas representaran a miles de estudiantes como usted.

Un entrevistador de RTI lo llamará por teléfono en los próximos días para hacerle algunas preguntas acerca de su educación pos-secundaria, especificamente durante el año escolar 1995-96. En base a experiencia obtenida por medio de este estudio en años pasados, sabemos que la entrevista puede hacerse un poco más breve si tiene a la mano documentos sobre sus ingresos y cualquier asistencia económica que haya recibido durante el año escolar 1995-96 cuando se le haga la llamada telefónica.

Estudiantes que esten matriculados en instituciones con programas educativos de menos de 2 años, escuelas comunitarias ("community colleges"), escuelas de 4 años, y universidades principales en los Estados Unidos y Puerto Rico, participarán en NPSAS:96 —incluyendo a esos estudiantes que no reciben ayuda financiera como también aquellos que sí la reciben. Si usted no recibió ayuda financiera, quisieramos saber también cómo pagó los gastos de asistir a la escuela durante el año escolar 1995-96. Por ejemplo, ¿tuvo que hacer un préstamo personal o recibió ayuda de su empleador o de sus padres para pagar la matricula? Si recibió ayuda financiera para estudiantes, quisieramos saber si recibió suficiente dinero para cubrir sus gastos educacionales. Si no, ¿tuvo que tomar prestado el dinero adicional a un miembro de su familia? La información suya, cuando se combine con las de todos los demás estudiantes que tomen parte en este estudio, ayudará a determinar cuánta ayuda económica federal habrá disponible en el futuro por medio de becas, préstamos, o programas de estudio y trabajo.

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El tiempo necesario para recopilar la información y completar la entrevista puede ser entre 20 a 45 minutos; el promedio es de 35 minutos por cada entrevista hecha por teléfono. Si usted tiene algún comentario acerca de la exactitud del tiempo estimado para ser entrevistado o alguna sugerencia sobre como mejorar la recopilación de esta información, escribanos directamente al: U.S. Department of Education, National Center for Education Statistics (NCES), NPSAS Project Officer #1850-0666, 555 New Jersey Avenue NW, Washington, DC 20208.

Le aseguramos que NCES y sus representantes siguen las más estrictas normas para proteger los derechos de privacidad de las personas que participan en estudios que se hacen bajo su dirección. Solamente un número limitado de personas serán autorizadas por NCES para tener acceso a la información que pudiera identificar a un individuo. Estas personas pueden usar los datos únicamente para propósitos estadísticos y están expuestos a ser multados y encarcelados por mal uso de los datos. Toda la información obtenida se unirá para producir reportes estadísticos para el Congreso de los EE. UU. u otras agencias que requieran esta información. La información individual que podría identificar su nombre, dirección, número telefónico, o número de identificación de estudiante, nunca será relacionada con sus respuestas en ningún informe. Su participación en NPSAS:96 es completamente voluntaria, aún así sus respuestas son necesarias para lograr que los resultados de este estudio sean precisos y actualizados.

Encontrará adjunto información adicional donde se le explica cómo usted fue seleccionado para este estudio y también algunos informes que recopilamos sobre la escuela que usted asistió en el año escolar 1995-96. Si tiene alguna pregunta sobre este estudio antes de recibir la llamada de RTI, o si usted desea hacer una cita previa para dejarnos saber cuando nos podemos comunicar con usted para ser entrevistado, por favor comuniquese con la Sra. Marty Nash al número telefónico, libre de cargos ("toll free"), 1-800-472-6094.

Muchas gracias por su participación. Le agradecemos su cooperación.

Sinceramente,

Pascal D. Forgione Comisionado

NOTA: Tenemos disponibles un servicio para personas con impedimentos de audición o del habla-- en inglés solamente. Si usted requiere de este servicio, llamenos, libre de cargos, al 1-800-647-9659 (SRT).

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# U. S. DEPARTMENT OF EDUCATION OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

NATIONAL CENTER FOR EDUCATION STATISTICS .

Spring 1996

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Dear Parent:

You have been selected to participate in an important study of parents of students who continued their education beyond high school. Research Triangle Institute (RTI), a nationally recognized research company located in North Carolina, is conducting the 1996 National Postsecondary Student Aid Study (NPSAS) for the National Center for Education Statistics of the United States Department of Education. This study provides critical information for policymakers about the costs and financing of postsecondary education in the United States and Puerto Rico.

NPSAS collects information on student demographics, family income, education expenses, employment, living expenses, education aspirations, and how students and their families meet the costs of their education beyond high school. Your family's experiences, when combined with those of all students and parents participating in the study, will be used, in part, to help determine how much federal grant, loan, and work-study aid will be available in the future.

Because the parents of only about one of every 4000 students who were enrolled during 1995-96 have the opportunity to participate in this study, the information you provide on how you helped finance your child's postsecondary education is very important to its success. Your responses will represent thousands of parents like yourself.

An interviewer from RTI will contact you by telephone sometime in the near future to ask you some questions about your experiences in financing your child's postsecondary education, especially for the 1995-96 school year. Based on prior studies, you can shorten the interview time if you have any documents about your income available at the time of the interviewer's call.

Parents of students enrolled in less-than-2-year institutions, community colleges, 4-year colleges, and major universities in the United States and Puerto Rico, including those who do not receive financial aid and those who do receive aid, participate in NPSAS. If your child did not receive financial aid, we would like to know how you may have helped your child meet the costs of attending school during the 1995-96 year. For example, if you provided some financial support, did you take out private loans or use money that you may have set aside for other purposes? For families that received student financial aid, we want to know whether students received enough to meet their education expenses. If not, where did the additional money come from?

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The time required to gather the information needed and complete the telephone interview is estimated to vary from about 10 to 25 minutes, with an average of about 15-20 minutes per telephone interview. If you have any comments concerning the accuracy of the time estimates or suggestions for improving the collection of information, write directly to: U.S. Department of Education, National Center for Education Statistics, NPSAS Project Officer #1850-0666, 555 New Jersey Avenue, NW, Washington, DC 20208.

I want to assure you that NCES and its contractors adhere to the highest standards in protecting the privacy of individuals involved in the studies it undertakes. Only a limited number of researchers may be authorized by NCES to access information that may identify individuals. They may use the data only for statistical purposes and are subject to fines and imprisonment for misuse. Data will be combined to produce statistical reports for Congress and others. No individual data that link your name, address, telephone number, or your child's student identification number with your responses will be reported. Your participation in NPSAS is strictly voluntary, however, your responses are necessary to make the results of this study accurate and timely.

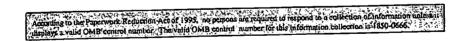
Additional information explaining how you were selected and some of the information we have collected from the school your child attended during 1995-96 is enclosed. If you have any questions about this study prior to your call from RTI, or if you would like to set up an appointment to be interviewed, please call Marty Nash at RTI. The toll-free number is 1-800-472-6094.

Thank you very much. Your cooperation is greatly appreciated.

Sincerely,

Jeanne E. Griffith Acting Commissioner

NOTE: Arrangements have been made to allow the participation of persons who are hearing or speech impaired. Call us (toll free) at 1-800-647-9659 (TDD).



Enclosure

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#### U. S. DEPARTMENT OF EDUCATION OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

NATIONAL CENTER FOR EDUCATION STATISTICS

Letter to Parents, from Commissioner--Spanish version]

Primavera, 1996

#### Estimado Padre/Madre

Usted ha sido seleccionado para tomar parte en un estudio importante acerca de los padres de estudiantes que continuaron su educación depués de terminar la escuela superior o la "high school". Research Triangle Institute (RTI), localizada en el estado de Carolina del Norte en los EE.UU., y reconocida a través del país como una compañía encuestadora, está llevando a cabo el Estudio Nacional Sobre Asistencia Económica de Estudiantes de Pos-Secundaria 1996 (NPSAS:96) el cual es patrocinado por el Departamento de Educación Federal de los EE.UU. El estudio recolecta información sobre varios temas tales como: estadísticas demográficas sobre los estudiantes, ingresos de familia, gastos educacionales, empleo, costo de vida, aspiraciones educacionales y los medios por los cuales los estudiantes y sus familias logran pagar el costo de su educación pos-secundaria. La información suya, cuando se combine con la de todos los demás estudiantes y padres de familia que tomen parte en este estudio, será usada, en parte, para determinar cuánta ayuda económica federal habrá disponible en el futuro por medio de becas, préstamos, o programas de estudio y trabajo.

Dado que los padres de solamente 1 de cada 4,000 de los estudiantes que estuvieron matriculados durante el año escolar 1995-96 tendrán la oportunidad de participar en este estudio, la información que usted nos provea sobre cómo le ayudo a su hijo(a) a pagar los gastos de su educación pos-secundaria es muy importante para el éxito del estudio. Sus respuestas representaran a miles de padres de familia como usted.

Un entrevistador de RTI lo llamará por teléfono en los próximos días para hacerle algunas preguntas acerca de su experiencia financiera--es decir, cómo pagó por la educación pos-secundaria de su hijo(a)-- especificamente durante el año escolar 1995-96. En base a experiencia obtenida por medio de este estudio en años pasados, sabemos que la entrevista puede hacerse un poco más breve si tiene a la mano documentos sobre sus ingresos cuando se le haga la llamada telefónica.

Los padres de estudiantes que esten matriculados en instituciones con programas educativos de menos de 2 años, escuelas comunitarias ("community colleges"), escuelas de 4 años, y universidades principales en los Estados Unidos y Puerto Rico, participarán en NPSAS:96 --incluyendo a esos estudiantes que no reciben ayuda financiera como también aquellos que sí la reciben. Si su hijo(a) no recibió ayuda financiera, quisieramos saber cómo le pudo ayudar a su hijo(a) a pagar los gastos para poder asistir a la escuela durante el año escolar 1995-96. Por ejemplo, si logró ayudarle economicamente, ¿tuvo que hacer un préstamo personal o usar dinero que había ahorrado para otros propósitos? Para las familias de estudiantes que recibieron ayuda financiera, quisieramos saber si recibieron suficiente dinero para cubrir los gastos educacionales. Si nó, ¿cómo y dónde consiguieron el dinero adicional?

on la regla federal. Paperwork Reduccion Act of 1999", a ninguna persona su le requiere responder a ana recoglisation de información sin que se muestra un número valido de control del OMB (Consojería de Presupuestos y Administración Federal). Et admicro

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El tiempo necesario para recopilar la información y completar la entrevista puede ser entre 10 a 25 minutos; el promedio es de 15-20 minutos por cada entrevista hecha por teléfono. Si usted tiene algún comentario acerca de la exactitud del tiempo estimado para ser entrevistado o alguna sugerencia sobre como mejorar la recopilación de esta información, escribanos directamente al: U.S. Department of Education, National Center for Education Statistics (NCES), NPSAS Project Officer #1850-0666, 555 New Jersey Avenue NW, Washington, DC 20208.

Le aseguramos que NCES y sus representantes siguen las más estrictas normas para proteger los derechos de privacidad de las personas que participan en estudios que se hacen bajo su dirección. Solamente un número limitado de personas seran autorizadas por NCES para tener acceso a la información que pudiera identificar a un individuo. Estas personas pueden usar los datos únicamente para propósitos estadísticos y están expuestos a ser multados y encarcelados por mal uso de lós datos. Toda la información obtenida se unirá para producir reportes estadísticos para el Congreso de los EE. UU. u otras agencias que requieran esta información. La información individual que podría identificar su nombre, dirección, número telefónico. o número de identificación de estudiante de su hijo(a), nunca será relacionada con sus respuestas en ningún informe. Su participación en NPSAS:96 es completamente voluntaria, aún así sus respuestas son necesarias para lograr que los resultados de este estudio sean precisos y actualizados.

Encontrará adjunto información adicional donde se le explica cómo usted fue seleccionado para este estudio y también algunos informes que recopilamos sobre la escuela a la cual asistió su hijo(a) en el año escolar 1995-96. Si tiene alguna pregunta sobre este estudio antes de recibir la llamada de RTI, o si usted desea hacer una cita previa para dejaraos saber cuando nos podemos comunicar con usted para ser entrevistado, por favor comuniquese con la Sra. Marty Nash al número telefónico, libre de cargos ("toll free"), 1-800-472-6094.

Muchas gracias por su participación. Le agradecemos su cooperación.

Sinceramente,

Jeanne E. Griffith Comisionado Interino

NOTA: Tenemos disponibles un servicio para personas con impedimentos de audición o del habla-- en inglés solamente. Si usted requiere de este servicio, llamenos, libre de cargos, al 1-300-647-9659 (SRT).

De scuerdo con la regla federal. Propervorir Reduction Act of 1993, a ninguno persona se la requiera responder a una reconflictón de información sin que se muestre un número vidido de control del OMB (Consejerta de Presupuestos y Administración Foderal). De número y alido de control del OMB para esta reconllución de información es 1850/0666.

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# Appendix C CADE Facsimile

# 1996 NATIONAL POSTSECONDARY STUDENT AID STUDY Computer-Assisted-Data-Entry Instrument



For each eligible student, please provide the following data.

# I. REGISTRATION/ADMISSIONS

Question Number	Description	Variable
Question 1.	Student's PERMANENT phone number [area code+prefix +number]	AADRPMAC, AADRPMTE, AADEPMTN
	Student's PERMANENT address	AADPMAD1 & ANDPMAD2
	Student's PERMANENT city	AADRPMCY
	Student's PERMANENT state	AADRPMST
	Student's PERMANENT zip code	AAPRPMZP, AADPMZPE
	Student's PERMANENT country (if not USA)	AADPMCTY
Question 2.	Is the student's LOCAL address same as the PERMANENT address? [y/n]	AAPMISLC
Question 3.	Student's LOCAL phone number [area code +prefix + number]	AAPRLCAC, AADRLCTE, AADRLCTN
Question 3.	Student's LOCAL address	AADLCAD1, AADLCAD2
	Student's LOCAL city	AADRLCCY
	Student's LOCAL state	AADRLCST
	Student's LOCAL zip code	AADRLCZP, AADLCZPE
Question 4.	Is address/phone information available for parents of the student? [y/n]	AADPALOC
Question 5.	LAST NAME, FIRST NAME and MIDDLE initial of parent for whom locating information is available.	AAPALAST, APAFIRST, AAPAMIDD
Question 6.	For parent named in Question 5.  PARENT'S phone number [ area code + number]	AADRPAAC, AADRPATE, AADRPATI AADPAAD1, AADPAAD2
	PARENT'S address	AADRPACY
	PARENT'S city	AADRPAST
	PARENT'S state	AADRPAZP, AADPAZPE
	PARENT'S zip code	AADPACTY
Question 7.	PARENT'S country (if not USA)  Is other phone/address information available for a DIFFERENT parent at a DIFFERENT address? [y/n]	AADRPTPA
Question 8.	Is other phone/address information available for a relative or friend of the student? [y/n]	AADROTRF
Question 9.	LAST NAME, FIRST NAME and MIDDLE Initial of Question 7 parent OR Question 8 relative/friend for whom locating information is available.	AAOTLAST, AOTFIRST, AOTMIDD

## NPSAS:96 CADE FACSIMILIE

Question Number	Description	Variable
Question 10.	Relationship of Question 7 parent or Question 8 relative/friend to STUDENT.  1. FATHER 7. AUNT 2. MOTHER 8. GRANDFATHER 3. SPOUSE 9. GRANDMOTHER 4. BROTHER 10. FRIEND 5. SISTER 11. CO-WORKER 6. UNCLE 12. OTHER (SPECIFY)	AAOTRELT
Question 11.	For parent named in Question 7 or relative/friend in Question 8, please provide:  Last Name, First Name, Middle Initial Phone number [area code + number] Address City State Zip Code Country	AAOTLAST, AOTFIRST, AAOTMIDD AADROTAC, AADROTTE, AADROTTN AADOTADI, AADOTAD2 AADROTCY AADROTST AADROTZP, AADOTZPE AADOCTY

## B. Student Characteristics Subsection

Question 1.	Student's LAST Name	
	Student's FIRST Name Student's MIDDLE Initial Student's Suffix (e.g., Jr., III)	ASSTLAST ASTFIRST ASSTMIDD ASSTSUFX
Question 2.	Student's Social Security Number	ASTCHSSN
Question 3.	Student's Date of Birth Place of Birth	ASTHDOBM, ASTHDOBD, ASTHDOBY ASTHPLOB
Question 4.	Student's Gender (M/F)	ASGENDER
Question 5.	Student's Marital Status (Use key below)  1. Not Married (Single, Widowed, Divorced)  2. Married  3. Separated  If married, please also provide:  Student's Maiden Name  Spouse's Name (Last, First, Middle)	AMARITAL  ASMAIDEN ASSPOUNM
Question 7.	Student's High School Degree (Use key below)  1. High School Diploma  2. GED or Other Equivalency  3. Certificate of High School Completion  4. No High School Degree or Certificate	AHIGHSCH
Question 7a.	Year Student Received High School Diploma/GED/Certificate	ASHICHAD
	Is the student of Hispanic Origin? [y/n]	ASHIGHYR



Question Number	Description	
	Student's Race/Ethnicity (Use key below)  1. White  2. Black  3. American Indian/Alaska Native	ASTHRACE
	4. Asian or Pacific Islander 5. Other (Specify)	ASRACESP
2	Is the student a U.S. Citizen or U.S. National? [y/n]	ACITIZEN
Question 10.  Question 11.	Is the student a Veteran of the U.S. Armed Forces? [y/n]	AVETERAN

# C. Admissions Information Subsection

Question 1.	Is an SAT score available? [y/n] If yes: Student's SAT Verbal Score Student's SAT Math Score Student's SAT Reasoning Score Year SAT taken	ASTSATAV ASTUSATV ASTUSATM ASTUSATR ASTUSATY
Question 2.	Is an ACT score available? [y/n]  If yes: Student's Composite ACT Score  Year ACT taken	ASTACTAV ASTUACTS ASTUACTY
Question 3.	Is other admissions test scores available? [y/n]	AOTHADMU ADADMTU
Question 4.	Select the test from the list below; provide the SCORE(s) and YEAR TAKEN:  1. ASSET 2. CPAT 3. CPP  4. CPT 5. PAR 6. PSAT  7. TABE 8. TALS (Form A or B  9. WONDERLIC (Scholastic Level)  10. WONDERLIC (Personnel Level)	AOTHADMU
	11. TOEFL 12. Other Test (Specify)	AOTADTXU

For Graduate, Doctoral, and First Professional Students:

Question 1.	Student's	GRE Verbal Score GRE Quantitative Score GRE Analytic Score	ASTGREAV ASTGRESV ASTGRESM ASTGRESA ASTGGREY	
Question 2.	Is other admissions test scores a	/ailable? [y/n]	AOTHADMG	



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Question Number	Description	
Question 3.	Select the test from the list below; provide the SCORE(s) and	Variable
	YEAR TAKEN.	AOTADMTG
	1. DAT 2. GMAT 3. LSAT 4. MCAT 5. Miller's Analogies 6. Oct.	
	5. Miller's Analogies 6. Other Test (Specify)	AOTADTXG

Question	Description	Variable
Number	Description	

# II. ENROLLMENT/TUITION SECTION

# A. Enrollment Term Sub-Section [MUST BE COMPLETED BEFORE TUITION SUB-SECTION]

If student was enrolled in a course for credit during the study period (all terms that began between May 1, 1995, and April 30, 1996, should be included), list all terms for which the student was enrolled and provide the following information for each term:  Name of Term or Payment Period [EX: Fall, 1994] Start date of that Term/Period [mm/yr] End date of that Term/Period [mm/yr] Attendance Status (use key below):  1 = Full-time 2 = Half-time or more, but less than Full-time	BTMNM_1-BTMNM_12 BTBMN_1-12/BTBYR_1-12 BTEMN_1-12/BTEYR_1-12 BTATN_1-BTATN_12
3 = Less than Half-time Credit or Clock Hours [number]	BTMHR_1-BTMHR_12

## For Undergraduates Only:

Question 1.	During [FIRST TERM ENROLLED], in what type of degree program was the student enrolled (Use key below):	BENFRDEG
	1 = Associate's Degree Program 2 = Bachelor's Degree Program 3 = Undergraduate Certificate or Other Formal Award 4 = Undergraduate, Non-degree Program 5 = Graduate/Post-Baccalaureate Certification Program (including Teacher Certification) 6 = Master's Degree Program 7 = Doctoral or First Professional Degree Program 8 = Graduate, Other (including non-degree programs)	
	During [FIRST TERM ENROLLED], what was this student's	BENFRLVL
Question 3.	level? (Use key below)	
	1 = 1 <sup>st</sup> Year/Freshman 2 = 2 <sup>nd</sup> Year/Sophomore 3 = 3 <sup>rd</sup> Year/Junior 4 = 4 <sup>th</sup> Year/Senior 5 = 5 <sup>th</sup> Year or Higher Undergraduate 6 = Undergraduate (unclassified) 7 = Student with advanced degree taking undergraduate	
	courses	



## NPSAS:96 CADE FACSIMILIE

Question Number	Description	
Question 6.	During [LAST TERM ENROLLED], in what type of degree program was the student enrolled (Use key below).  1 = Associate's Degree Program  2 = Bachelor's Degree Program  3 = Undergraduate Certificate or Other Formal Award  4 = Undergraduate, Non-degree Program  5 = Graduate/Post-Baccalaureate Certification Program (including Teacher Certification)  6 = Master's Degree Program  7 = Doctoral or First Professional Degree Program  8 = Graduate, Other (including non-degree programs)	BENLADEG
Question 6b	Cumulative GPA	BENNFGPA
Question 6c.	What is the student's current or most recent major or field of study?	BECREMIR
Question 7.	When did this student FIRST enroll at [YOUR INSTITUTION]? (mm/yr)	BEEVERMM/BEEVERYY
Question 7b	Was this student enrolled at [YOUR INSTITUTION] at anytime during the 1994-1995 year? [y/n]	BENRLAYR
Question 7c	Was this student ever enrolled at [YOUR INSTITUTION] prior to May 1, 1995? [y/n]	BEENREVR
Question 8.	Did this student transfer any credits from another postsecondary institution? [y/n]	BCRETRAN
uestion 9.	Has this student completed the requirements for the [DEGREE]? [y/n]	BDEGCOMP
uestion 10.	If the requirements have been completed, will the [DEGREE] be awarded on or before August 31, 1996? [y/n]	BEDEGAWD

# For Graduate Students Only

Question 1.	During [FIRST TERM ENROLLED], in what type of degree program was the student enrolled? (Use key below)	BENFRDEG
	1 = Associate's Degree Program 2 = Bachelor's Degree Program 3 = Undergraduate Certificate or Other Formal Award 4 = Undergraduate, Non-degree Program 5 = Graduate/Post-Baccalaureate Certification Program (including Teacher Certification) 6 = Master's Degree Program 7 = Doctoral or First Professional Degree Program 8 = Graduate, Other (including non-degree programs)	

Question Number	Description	Variable
Question 2.	Which of the following Masters degrees was the student working toward during [FIRST TERM ENROLLED]? (Use key below)  1. Masters of Business Administration (MBA)  2. Masters of Science (MS)  3. Masters of Arts (MA)  4. Masters of Education (M.Ed)  5. Masters of Public Administration (MPA)  6. Masters of Arts in Library Sciences (MALS)  7. Masters of Public Health (MPH)  8. Maters of Fine Arts (MFA)  9. Masters of Applied Arts (MAA)  10. Masters of Arts in Teaching (MAT)  11. Masters of Divinity (M.Div)  12. Masters of Social Work (MSW)  13. Masters of Professional Management MPM)  15. Other Masters Degree; not listed above	BENFRWMA
Question 3.	During [FIRST TERM ENROLLED], what was this student's level? (Use key below)  8 = 1 <sup>st</sup> Year Graduate/professional 9 = 2 <sup>nd</sup> year Graduate/professional 10 = 3 <sup>rd</sup> year Graduate/professional 11 = Beyond 3 <sup>rd</sup> year Graduate/professional	BENFRLVL
Question 4.	During [LAST TERM ENROLLED], in what type of degree program was the student enrolled (Use key below):  1 = Associate's Degree Program 2 = Bachelor's Degree Program 3 = Undergraduate Certificate or Other Formal Award 4 = Undergraduate, Non-degree Program 5 = Graduate/Post-Baccalaureate Certification Program (including Teacher Certification) 6 = Master's Degree Program 7 = Doctoral or First Professional Degree Program 8 = Graduate, Other (including non-degree programs)	BENLADEG



Question Number	Description	
Question 5	Which of the following Masters degrees was the student workin toward during [LAST TERM ENROLLED]? (Use key below)	Variable  g BENLAWMA
	16. Masters of Business Administration (MBA) 17. Masters of Science (MS) 18. Masters of Arts (MA) 19. Masters of Education (M.Ed) 20. Masters of Public Administration (MPA) 21. Masters of Arts in Library Sciences (MALS) 22. Masters of Public Health (MPH) 23. Maters of Fine Arts (MFA) 24. Masters of Applied Arts (MAA) 25. Masters of Arts in Teaching (MAT) 26. Masters of Divinity (M.Div) 27. Masters of Social Work (MSW) 28. Masters of Landscape Architecture (MLA) 29. Masters of Professional Management MPM) 30. Other Masters Degree; not listed above	
Question 5b.	Master's Degree Field of Study.	777
Question 6.	During [LAST TERM ENROLLED], what were the	BENMAFOS
	level? (Use key below)  8 = 1 <sup>st</sup> year Graduate/professional  9 = 2 <sup>nd</sup> year Graduate/professional  10 = 3 <sup>rd</sup> year Graduate/professional  11 = Beyond 3 <sup>rd</sup> year Graduate/professional	BENLALVL
uestion 6b.	Cumulative GPA	
uestion 7.	When did this student FIRST enroll at [YOUR INSTITUTION]?	BENNFGPA
uestion 7b.	[ [ ]	BEEVERMM/BEEVERYY
	Was this student enrolled at [YOUR INSTITUTION] at anytime during the 1994-1995 year? [y/n]	BENRLAYR
estion 7c.	Was this student ever enrolled at [YOUR INSTITUTION] prior to May 1, 1995? [y/n]	BEENREVR
estion 8.	Did this student transfer any credits from another postsecondary institution? [y/n]	BCRETRAN
estion 9.	Has this student completed the requirements for the [DEGREE]?  [y/n]	BDEGCOMP
estion 10.	If the requirements have been completed, will the [DEGREE] be awarded on or before August 31, 1996? [y/mm]	BEDEGAWD

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Question	Variable
Number	Description

uestion 1.	During [FIRST TERM ENROLLED], in what type of degree program was the student enrolled? (Use key below)	BENFRDEG
	1 = Associate's Degree Program 2 = Bachelor's Degree Program 3 = Undergraduate Certificate or Other Formal Award 4 = Undergraduate, Non-degree Program 5 = Graduate/Post-Baccalaureate Certification Program (including Teacher Certification) 6 = Master's Degree Program 7 = Doctoral or First Professional Degree Program 8 = Graduate, Other (including non-degree programs)	·
Question 2.	Which of the following Doctoral or First Professional degrees was the student working toward during [FIRST TERM ENROLLED]?  (Use key below)  DOCTORAL DEGREES  1. Doctor of Philosophy (PhD) 2. Doctor of Education (Ed.D) 3. Doctor of Theology (ThD) 4. Doctor of Business Administration (DBA) 5. Doctor of engineering (D.Eng) 6. Doctor of Fine Arts (DFA) 7. Doctor of Public Administration (DPA) 8. Doctor of Science (Dsc/ScD) 9. Other Doctoral Degree	BENFRWDF
	FIRST PROFESSIONAL DEGREES  10. Chiropractic (DC or DCM)  11. Dentistry (DDS or DMD)  12. Medicine (MD)  13. Optometry (OD)  14. Osteopathic Medicine (DO)  15. Pharmacy (Pharm. D)  16. Podiatry (DPM or Pod. D)  17. Veterinary medicine (DUM)  18. Law (LLB or JD)  19. Theology (M.Div., MHL, BD)	
Question 3.	During [FIRST TERM ENROLLED], what was this student's level? (Use key below):  8 = 1 <sup>st</sup> year Graduate/professional 9 = 2 <sup>nd</sup> year Graduate/professional 10 = 3 <sup>rd</sup> year Graduate/professional 11 = Beyond 3 <sup>rd</sup> year Graduate/professional	BENFRLVL



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Question Number	Description	
Question 4.	LAST TERM ENROLLED], in what type of degree program was the student enrolled (Use key below);	Variable  S BENLADEG
	1 = Associate's Degree Program 2 = Bachelor's Degree Program 3 = Undergraduate Certificate or Other Formal Award 4 = Undergraduate, Non-degree Program 5 = Graduate/Post-Baccalaureate Certification Program (including  Teacher Certification) 6 = Master's Degree Program	
	7 = Doctoral or First Professional Degree Program 8 = Graduate, Other (including non-degree programs)	
	Which of the following doctoral or First Professional degrees was the student working toward during [LAST TERM ENROLLED]? (Use key below);	BENLAWDF
	DOCTORAL DEGREES	
	<ol> <li>Doctor of Philosophy (PhD0</li> <li>Doctor of Education (Ed.D)</li> <li>Doctor of Theology (ThD0</li> <li>Doctor of Business Administration (DBA)</li> <li>Doctor of engineering (D.Eng)</li> <li>Doctor of Fine Arts (DFA)</li> <li>Doctor of Public Administration (DPA)</li> <li>Doctor of Science (Dsc/ScD)</li> <li>Other Doctoral Degree SPECIFY:</li> </ol>	
	FIRST PROFESSIONAL DEGREES  10. Chiropractic (DC or DCM)  11. Dentistry (DDS or DMD)  12. Medicine (MD)  13. Optometry (OD)  14. Osteopathic Medicine (DO)  15. Pharmacy (Pharm. D)  16. Podiatry (DPM or Pod. D)  17. Veterinary medicine (DUM)  18. Law (LLB or JD)  19. Theology (M.Div., MHL, BD)	BELAWDFS
stion 5b.	Field of Study.	
		BEGIPFOS

Question Number	Description	Variable
Question 6.	During [LAST TERM ENROLLED], what was this student's level? (Use key below)	BENLALVL
	8 = 1 <sup>st</sup> year Graduate/professional 9 = 2 <sup>nd</sup> year Graduate/professional 10 = 3 <sup>rd</sup> year Graduate/professional 11 = Beyond 3 <sup>rd</sup> year Graduate/professional	
0	Cumulative GPA.	BENNFGPA
Question 6b.  Question 7	When did this student FIRST enroll at [YOUR INSTITUTION]?  [mm/yr]	BEEVERMM/BEEVERYY
Question 7b.	Was this student enrolled at [YOUR INSTITUTION] at anytime during the 1994-1995 year? [y/n]	BENRLAYR
Question 7c.	Was this student ever enrolled at [YOUR INSTITUTION] prior to May 1, 1995? [y/n]	BEENREVR
Question 8.	Did this student transfer any credits from another postsecondary institution? [y/n]	BCRETRAN
Question 9.	Has this student completed the requirements for the [DEGREE]? $[y/n]$	BDEGCOMP
Question 10	If the requirements have been completed, will the [DEGREE] be awarded on or before August 31, 1996? [y/mm]	BEDGAWD

### For CLOCK HOUR Institutions ONLY.

	For CLOCK HOUR Institutions ONLI.	DECL VDDC
Question 11.	What is the name of the current or most recent program in which this student is enrolled?	BECLKPRG
Question 12.	What is the total length of the program in clock/contact hours? [Specify hours]	BECLKHRS
Question 13.	How many hours (lab and classroom) are required per week? (Specify hours)	BENCLKWK

B. Tuition C Question 1.	For each term attended by the student (those terms identified in the Enrollment/Term Sub-section above), specify amounts of tuition and fees charged. Please provide separate amounts for each term, if available.	BTUAMT01-BTUAMT12
Question 2.	Total tuition and fees charged for all terms.	BTURNTTL (IF BY TERM) BTTUITOT (IF NOT BY TERM)
Question 3.	For tuition purposes, this student was classified as: (Use key below)  1. In jurisdiction (e.g., in-state, in-district, etc.) 2. Out-of-jurisdiction (e.g., out-of-state, out-of-district, etc.)	BTUNJURI



Question Number	Description	
	III FINANCIAL ATT	Variable Variable

### III. FINANCIAL AID INFORMATION

### A. Financial Aid Awards

Question 1.	Did the student receive any financial aid, such as:	
	<ul> <li>assistantships</li> <li>grants</li> <li>scholarships</li> <li>loans</li> <li>fellowships</li> <li>tuition waivers</li> <li>tuition discounts</li> <li>veterans benefits</li> <li>employer aid</li> </ul>	CFACVANS
	- other financial aid for terms or courses that BEGAN between May 1, 1995, and April 30, 1996? [y/n]	

## IF NO, YOU HAVE COMPLETED THIS SUBSECTION

Question 2.	Please enter the amounts of financial aid received by the student within each program?	
	Federal Aid Programs	
	B. Pell Grant Program C. FFEL Stafford Loan - Subsidized D. FFEL Stafford Loan - Unsubsidized E. Direct Loan - Subsidized F. Direct Loan - Unsubsidized G. FFEL PLUS Loan H. Direct PLUS Loan I. FSEOG J. Federal Perkins Loan K. FWS (Federal Work Study)  NOTE: Pell Grant Program (item A above) will be asked only for undergraduate students; this item is not applicable for Graduate, Doctoral and First-Professional Students.	CFADPELL CFASTAFS CFASTAFU CFADIRES CFADIREU CFADPLUS CDIRPLUS CFAFSEOG CPERKINS CFATDFWS
	State Aid Programs (List up to 4 awards)	
	A. Customized for each state B. Customized for each state C. Customized for each state D. Customized for each state	CFSTATE1 CFSTATE2 CFSTATE3 CFSTATE4
1,	NOTE: State Aid Programs vary by state. Please refer to CADE for the specific items which should be included here for your institution.	



Question Number	Description	Variable
Vuinto.	Institutional Grants and Scholarships  A. Customized for each institution  B. Customized for each institution  C. Customized for each institution  D. Athletic Scholarship  E. Tuition Waivers (employees/dependents)  F. Tuition and Fee Waivers/Discounts  G. Teaching Assistantships/Stipends  H. Research Assistantships/Stipends  I. Graduate Assistantships/Stipends  J. Graduate Fellowships	CFAINSTA CFAINSTB CFAINSTC CFATHSCH CFEMPWAI CFWAIDIS CFTEAASS CFRESASS CFGRDASS CFGRDFEL
	NOTE: Institutional Grants and Scholarships - Items A, B, and C, vary by institution. Please refer to CADE for the specific items which should be included here for your institution  ALSO NOTE: Items A, B, C, D, and E are requested for Undergraduates. All items are requested for Graduates, Doctoral, and First-Professional Students.	
	Other Awards	
	Please also report any other financial aid awarded to the student, provide:  1. the name of the award  2. the type of award (Use key below)  1. Grant or scholarship  2. Loans  3. Work Study	CFNAME1-CFNAME5 CFATYPE1-CFATYPE5
	4. Assistantship 5. Veteran Benefits 6. Vocational Rehabilitation 7. Tuition Reimbursement 8. Other 3. whether the award is need based, merit based, or both	
	need/merit based (Use key below)  N Need based  M Merit based  B Both need and merit based  U Unknown	CFANMB1-CFANMB5
	4. the source of the award (Use key below)  1. Federal  2. State  3. Institution  4. Employer  5. Other  5. the amount of the award	CFAHSRC1-CFAHSRC5



234.

Question		
Number	Description	Variable

#### B. **Needs Analysis**

Question 1. Is there financial aid budget information or an Expected Family Contribution (EFC) value available for the student? [y/n]	CBUNFANS
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# IF NO, YOU HAVE COMPLETED THIS SUB-SECTION

O		
Question 2.	What was the student's dependency status during the study year for federal financial aid purposes? (Use key below)	CNDEPEND
	<ol> <li>Dependent</li> <li>Independent</li> <li>Independent, WITH dependents</li> </ol>	
Question 3.	For purposes of determining the student's financial aid budget, was the student's local residence? (Use key below)	CNLCLRES
	<ol> <li>On-campus or School-Owned Housing</li> <li>Off-Campus or on-School-Owned (without parents)</li> <li>Off-Campus or Non-School-Owned (with parents)</li> </ol>	
Question 4.	Please provide the Expected Family Contribution (EFC) amount for the student.	CCADEEFC
uestion 5.	Is there a Cost of Attendance or Student Expense Budget available for this student? [y/n]	CNEAVAIL
uestion 6.	Please provide line-item budget amounts (if only a total budget amount is available, please provide the total amount; line-item amounts are preferred over a total amount).	
	<ol> <li>Tuition and Fees</li> <li>Books and Supplies</li> <li>Room and Board</li> <li>Transportation</li> <li>All Other Expenses</li> </ol>	CTUITION CNEBOOKS CNESROOM CNETRANS CNEOTHER
i	Total Cost of Attendance	CTOTLCOA

l. 	Is there a Student Aid Report (SAR) or computerized SAR data available for this student (y/n)?	COANT
	Student's State of Legal Residence:	CSAVLANS
3.	First Bachelor's Degree by 7/1/95:	CSARLGST
	1. Yes	CSFSTDEG
	2. No	



NPSAS:96 Methodology Report: Appendix C

Question Number	Description	Variable
J.	College Grade Level in 1995-96:  1. 1st Yr, Never Attended 2. 1st Yr, Attended Before 3. 2nd Yr/Sophomore 4. 3rd Yr/Junior 5. 4th Yr/Senior 6. 5th Yr/Other Undergraduate 7. 1st Yr Graduate/professional 8. 2nd Yr Graduate/professional 9. 3rd Yr Graduate/professional 10 Beyond 3rd Yr Graduate/professional	CSARYEAR
 5.	Child Care Paid for How Many Children:	CNUMCHCR
<del>5.</del> 6.	Born Before 1-1-72?  1. Yes 2. No	CSABEF72
7.	Orphan or Ward of Court?  1. Yes 2. No	CSORPHAN
8.	Have Dependents Other than Spouse? 1. Yes 2. No	COTHDPND
9.	Number of Family Members in 1995-96: Allowable Range: 0 thru 99	CSSTNFAM
10.	Number in College in 1995-96: Allowable Range: 0 thru 9	CSTNCOLL
11.	Number of Members in Parents family in 1995-96: Allowable Range: 0 thru 99	CSPANFAM
12.	Number in Parents' family in College in 1995-96: Allowable Range: 0 thru 9	CPANCOLL
13	Type of 1994 Tax Form used: 1. Completed 1040A/1040 EZ 2. Completed 1040 3. Estimated 1040A/1040 EZ 4. Estimated 1040 5. Will Not File	CSSTFORM
14.	Exemptions Claimed: Allowable Range: 0 thru 99	CSTNEXEM
15.	Adjusted Gross Income from IRS form: Allowable Range: -999999 thru 999999	CSASTAGI



Question Number	Description	
16.	U.S. Income Tax Paid: Allowable Range: -99999 thru 99999	Variable CSASTTAX
17.	Student's Income Earned from Work: Allowable Range: -999999 thru 999999	CSSTWORK
18.	Spouse's Income Earned from Work: Allowable Range: -999999 thru 999999	CSSPWORK
19.	Annual Social Security Benefits: Allowable Range: -99999 thru 99999	CSASTSOC
20.	Annual AFDC/ADC: Allowable Range: -99999 thru 99999	CSSTAFDC
21	Annual Child Support Received: Allowable Range: -99999 thru 99999	CSTCHILD
22.	Other Untaxed Income: Allowable Range: -99999 thru 99999	CSTOTHER
23.	Type of 1994 Tax Form used by parents: 1. Completed 1040A/1040 EZ 2. Completed 1040 3. Estimated 1040A/1040 EZ 4. Estimated 1040 5. Will Not File	CSPAFORM
4.	Exemptions Claimed by parents: Allowable Range: 0 thru 99	CPANEXEM
5	Adjusted Gross Income from parents' IRS form: Allowable Range: -999999 thru 999999	CSAPAAGI
5.	U.S. Income Tax Paid by parents: Allowable Range: -99999 thru 99999	CSAPATAX
7.	Father's Income Earned from Work: Allowable Range: -999999 thru 999999	CSFAWORK
3.	Mother's Income Earned from Work: Allowable Range: -999999 thru 999999	CSMOWORK
	Parents' Annual Social Security Benefits: Allowable Range: -99999 thru 99999	CSAPASOC
	Parents' Annual AFDC/ADC: Allowable Range: -99999 thru 99999	CSPAAFDC
	Parents' Annual Child Support Received: Allowable Range: -99999 thru 99999	CPACHILD
	Parents' Other Untaxed Income: Allowable Range: -99999 thru 99999	CPAOTHER
	Students' Cash, Savings, and Checking: Allowable Range: -999999 thru 999999	CSSTCASH

Question Number	Description	Variable
34.	Student's Other Investments Value: Allowable Range: -999999 thru 999999	CSTINVVL
35.	Student's Other Investments Debt: Allowable Range: -999999 thru 999999	CSTINVDB
36.	Student's Business Value: Allowable Range: -9999999 thru 9999999	CSTBUSVL
37.	Student's Business Debt: Allowable Range: -9999999 thru 9999999	CSTBUSDB
38.	Student's Farm Value: Allowable Range: -9999999 thru 9999999	CSTFRMVL
39.	Student's Farm Debt: Allowable Range: -9999999 thru 9999999	CSTFRMDB
40.	Parents' Cash, Savings, and Checking: Allowable Range: -999999 thru 999999	CSPACASH
41.	Parents' Other Investments Value: Allowable Range: -999999 thru 999999	CPAINVVL
42.	Parents' Other Investments Debt: Allowable Range: -999999 thru 999999	CPAINVDB
43.	Parents' Business Value: Allowable Range: -9999999 thru 9999999	CPABUSVL
44.	Parents' Business Debt: Allowable Range: -9999999 thru 9999999	CPABUSDB
45.	Parents' Farm Value: Allowable Range: -9999999 thru 9999999	CPAFRMVL
46.	Parents' Farm Debt: Allowable Range: -9999999 thru 9999999	CPAFRMDB

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### Appendix D **Student and Parent Interviews**

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### Student CATI Section A



#### SAENROL1

According to our information, you were enrolled, and completed at least one term at [NPSAS school] between July 1, 1995 and June 30, 1996. Is that correct? (1=YES 2=NO 3=DROPPED OUT)

IF THE RESPONDENT REFUSES USE ESC KEY FOR A BREAKOFF ENTER 3 IF R DROPPED OUT BEFORE COMPLETING A TERM

If SAENROL1=1, goto SACERTIF; if SAENROL1=2 or -1, goto SAENROL2. If SAENROL1=3 then goto SADROPMO.

#### SAENROL2

Were you enrolled at [NPSAS school]in a term that began between May 1, 1995 and June 30, 1995? (1=YES 2=NO 3=DROPPED OUT)

NOTE: THAT IS, ENROLLED ANYTIME BETWEEN MAY 1, 1995 AND JUNE 30, 1995 INTERVIEWER: IF RESPONDENT ANSWERS NO, PROBE IF THEY DROPPED OUT ENTER 3 IF R DROPPED OUT BEFORE COMPLETING A TERM

If SAENROL2=1, goto SACERTIF
If SAENROL2=2 or -1, goto SAAIDTUI
If SAENROL2=3, goto SADROPMO

#### SADROPMO/SADROPYR

When did you leave [NPSAS school]?

MONTH (1-12) \

YEAR (95-96) \

#### **SADROPRE**

Did you receive a full refund of your tuition when you left?

1= YES

2= NO

If SADROPRE=1, go to A\_END
If SADROPRE=2 or -1, goto SACERTIF

#### **SACERTIF**

If level is 2-year or higher, goto SADEGREE.

While you were enrolled at [NPSAS school], were you enrolled in a program or taking courses leading to a certificate?

1 = YES

2 = NO

### IF THE RESPONDENT REFUSES USE ESC KEY FOR A BREAKOFF

If SACERTIF=1 goto SACLKHRS; if SACERTIF=2, goto SATRNSCR

#### **SACLKHRS**

Did your program of study require at least 300 clock hours of instruction in order for a certificate to be awarded?

1 = YES

2 = NO

### IF THE RESPONDENT REFUSES USE ESC KEY FOR BREAKOFF

If SACLKHRS=1, goto SADOBMO; if SACLKHRS=2, goto SATRNSCR

#### **SADEGREE**

While you were enrolled at [NPSAS school], were you enrolled in a program or taking courses leading to a degree, (such as an associate's, bachelor's, or an advanced degree) or a certificate?

1 = YES

2 = NO

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### IF THE RESPONDENT REFUSES USE ESC KEY FOR A BREAKOFF

If SADEGREE=1, goto SADOBMO; if SADEGREE=2, goto SATRNSCR

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D-5

#### **SATRNSCR**

At anytime between [May 1, 1995 and June 30, 1996, July 1, 1995 and June 30, 1996] were you enrolled in a course bearing credits that could be transferred to another school?

1 = YES

2 = NO

### IF THE RESPONDENT REFUSES USE ESC KEY FOR A BREAKOFF

If SATRNSCR=1, goto SADOBMO; if SATRNSCR=2, goto SAAIDTUI

#### **SAAIDTUI**

If SZFEDAID gt 0

According to our records you received financial aid to attend [NPSAS school]. Did you pay tuition to [NPSAS school] for the 95-96 school year?

1 = YES

2 = NO

#### IF THE RESPONDENT REFUSES USE ESC KEY FOR A BREAKOFF

If SAAIDTUI =1, goto SADOBMO If SAAIDTUI=2, goto SAEVRENR

#### **SAEVRENR**

Have you ever attended or were you ever enrolled at [NPSAS school]?

1 = YES

2 = NO

### IF THE RESPONDENT REFUSES USE ESC KEY FOR A BREAKOFF AND CODE AS A REFUSAL

If SAEVRENR=1, goto SALSTENM If SAEVRENR=2, goto SAWHYSMP

#### SALSTENM/SALSTENY

When were you last enrolled at [NPSAS school]?

MONTH: 1 - 12 , -1=DK -2=RE YEAR: 20-96 -1=DK -2=RE

#### **SAWHYSMP**

Do you know of any reason why my information shows that you were enrolled at [NPSAS school] at some time during the period on or after May 1, 1995?

Goto A\_END

#### SADOBMO/SADOBDA/SADOBYR

If preloaded and SZSTDOB(YY) It 1950 or gt 1979 goto SADOBVER; else store SZSTDOB in SADOBMO/DA/YR and goto SAHSDIPL.

What is your birth date?

-1=DK -2=RE MONTH/ DAY /YEAR

Goto SAHSDIPL

#### **SAAGE**

Computed for all respondents based on SADOBMO/DA/YR

#### **SADOBVER**

INTERVIEWER: THE RESPONDENT IS OLDER THAN EXPECTED. PLEASE VERIFY THE BIRTHDATE.

I have your date of birth as [fill DOB]. Is that correct?

1 = YES

2 = NO

-1 = DK

-2 = RE

#### SAHSDIPL

If SZHIGHYR gt 0 and lt 95 and SZHIGHSC eq 1, 2, or 3, store value of SZHIGHSC in SAHSDIPL and SZHIGHYR in SAHSDATE and goto SAHSTYPE. If SZGEDYR gt 0 and lt 95, store <2> in SAHSDIPL and value of SZGEDYR in SAHSDATE and goto SAHSTYPE. Else ask SAHSDIPL.

Did you ...

1 = receive a high school diploma,

2 = pass a General Educational Development (GED) test, or

3 = receive a high school completion certificate?
4 = DID NOT COMPLETE HIGH SCHOOL OR
HIGH SCHOOL EQUIVALENCY PROGRAM
5 = ATTENDED FOREIGN HIGH SCHOOL
-1 = DK -2 = RE

If SAHSDIPL eq 1, 2, 3, or 5, goto SAHSDATE. If SAHSDIPL=4, -1, or -2, goto SAENRLHS.

#### SAHSDATE

When did you receive your [high school diploma/certificate]?

YEAR: (30-96) -1=DK -2=RE \

#### **SAENRLHS**

If SAHSDIPL=1, 2, 3, or 5 and SAHSDATE ne 96, goto SAHSTYPE. Else ask SAENRLHS.

Were you still completing high school requirements for the entire time you were enrolled in [NPSAS school] between May 1, 1995 and June 30, 1996?

1 = YES

2 = NO

-1 = DK

-2 = RE

If SAENRLHS=1, then SANPELIG=4; goto A\_END.

#### **SAHSTYPE**

Was your high school a public or private school?

INTERVIEWER: PROBE IF PRIVATE.

Was it a catholic, other religious, or some other private high school?

1 = PUBLIC

2 = PRIVATE, CATHOLIC

3 = PRIVATE, OTHER RELIGIOUS

4 = PRIVATE, OTHER NON-RELIGIOUS

5 = ATTENDED FOREIGN HIGH SCHOOL

-1 = DK

-2 = RE

#### **SAFSTSCH**

What was the first school you ever enrolled in after high school?

ENTER 8 IF THE FIRST SCHOOL WAS [NPSAS school] OTHERWISE, DO THE IPEDS CODING IN THE USEREXIT

8= THE FIRST SCHOOL IS [NPSAS school] 1=ENTER/RE-ENTER USEREXIT 2=SKIP OVER USEREXIT

#### SAFSTMO/SAFSTYR

When did you first attend [name of first postsecondary school attended] after high school?

INTERVIEWER: IF RESP. SAYS "FALL TERM AFTER HIGH SCHOOL", THEN ENTER THE H.S. GRADUATION YEAR NOTED HERE AND AUGUST FOR MONTH -- CONFIRMING WITH RESPONDENT.

H.S. DIPLOMA OR CERTIFICATE WAS RECEIVED IN: [fill SAHSDATE]

ENTER MONTH \ YEAR (20-96) -1=DK -2=RE

#### SABASCH

Skip if STTYPE =1; goto SANPSMO

Where did you earn your bachelor's degree?

INTERVIEWER: ENTER[ 8 [N]IF THE BACHELOR'S DEGREE WAS EARNED AT [NPSAS school]. ENTER 9 IF THE BACHELOR'S DEGREE WAS EARNED AT [first PS school attended] OTHERWISE, DO THE IPEDS CODING IN THE USEREXIT BACHELOR'S DEGREE WAS EARNED AT...

8= ...[NPSAS school]

9= ...[FILL name of first PS school attended]

OTHERWISE, CODE THE SCHOOL IN THE USEREXIT.

1=RE-ENTER USEREXIT

2=SKIP OVER USEREXIT

5=RESPONDENT DOES NOT HAVE A

BACHELOR'S DEGREE 6=DK 7=RE

#### SABA\_YR

What year did you earn your bachelor's degree?

50-96

#### SANPSMO/SANPSYR

If SABASCH=8, goto SAENRLYR

When did you first attend [NPSAS school] after high school?

MONTH / YEAR (20-96) -1=DK -2=RE

#### SAENRLYR

Were you enrolled at [NPSAS school] for the 94-95 school year (1=YES 2=NO)? \

If SAENRLYR=1 goto SAPRIAID; else goto SAANYLYR

#### SAANYLYR

Were you enrolled at any postsecondary school for 94-95 (1=YES 2=NO)?

If SAANYLYR=1 goto SAPRIAID. Else goto SAENUX\_1.

#### SAPRIAID

Did you get any grants, loans, scholarships, assistantships, work-study, or any other financial aid in 1994-95 (1=YES 2=NO)?

#### SAENUX\_1

Next, I'll need to ask you about the dates of your enrollment during the 95-96 school year.

INTERVIEWER: PLEASE ENTER THE RESPONSES IN THE USER EXIT. REMEMBER TO ASK ABOUT THE OTHER SCHOOLS THEY ATTENDED IN THE 95-96 SCHOOL YEAR

1 = ENTER/RE-ENTER THE USEREXIT

2 = SKIP OVER THE USEREXIT

#### SADEGRE1

What type of degree or certificate program were you enrolled in during the **first** term at [NPSAS school] that began in [fill dates of first enrollment in NPSAS year]?

- I = CERTIFICATE OR OTHER UNDERGRADUATE FORMAL AWARD
- 2 = ASSOCIATES DEGREE PROGRAM (AA, AAS, AS, ETC)
- 3 = BACHELOR'S DEGREE PROGRAM (BA, BS, ETC)
- 4 = UNDERGRADUATE SPECIAL STUDENT (NON-DEGREE OR NON-MATRICULATED)
- 5 = POST-BACCALAUREATE CERTIFICATE PROGRAM
- 6 = MASTER'S DEGREE PROGRAM (MA, MS, MBA, ETC)
- 7 DOCTORAL OR FIRST PROFESSIONAL DEGREE PROGRAM (PhD, EdD, JD, MD, DDS, DPA, ETC)
- 8 = GRADUATE SPECIAL STUDENT (NON-DEGREE OR NON-MATRICULATED)
- -1 = DK 2 = RE

#### SADGTYP1

If SADEGRE1 ne 7, goto SAMAJOR1

Which doctoral or first professional degree were you working toward in your first term at [NPSAS school] in the 1995-96 school year?

#### DOCTORAL/FIRST PROFESSIONAL DEGREES

- 1= DOCTOR OF PHILOSOPHY (PHD)
- 2= DOCTOR OF EDUCATION (EDD)
- 3= DOCTOR OF THEOLOGY (THD)
- 4= DOCTOR OF BUSINESS ADMIN
- 5= DOCTOR OF ENGINEERING
- 6= DOCTOR OF FINE ARTS (DFA)
- 7= DOCTOR OF PUBLIC ADM. (DPA)
- 8= DOCTOR OF SCIENCE (DSC/SCD)
- 9= OTHER DOCTORAL DEGREE
- 10= CHIROPRACTIC (DC OR DCM)
- 11= DENTISTRY (DDS OR DMD)
- 12= MEDICINE (MD)
- 13= OPTOMETRY (OD)
- 14= OSTEOPATHIC MEDICINE (DO)
- 15= PHARMACY (PHARM. D)
- 16= PODIATRY (DPM OR POD. D)
- 17= VETERINARY MEDICINE (DVM)
- 18= LAW (LLB OR JD)
- 19= THEOLOGY (M.DIV., MHL, BD)
- -1= DK -2= RE

#### **SADGTYSP**

Specify degree type when SADGTYP1=9

#### **SAMAJOR1**

If SADEGRE1=7 and SADEGRE1 gt 1, goto SALEVUG1

What was your major, or program of study, at [NPSAS school] during the first term in the 95-96 school year?

INTER VIEWER: PLEASE ENTER THE INFO IN THE FOLLOWING SCREENS OF THE USEREXIT

- 1 = ENTER/RE-ENTER THE USEREXIT
- 2 = SKIP OVER THE USEREXIT
- 3 = UNDECLARED

#### SALEVUG1

During the first term you were enrolled at [NPSAS school] in 95-96, what was your level in the program?

UNDERGRADUATE:

- 0 = UNCLASSIFIED UNDERGRADUATE
- 1 = FIRST YEAR/FRESHMAN
- 2 = SECOND YEAR/SOPHOMORE
- 3 = THIRD YEAR/JUNIOR
- 4 = FOURTH YEAR/SENIOR
- 5 = FIFTH YEAR OR HIGHER

**UNDERGRADUATE** 

- -1 = DK
- -2 = RE

Goto SACHGPR I

#### SAYRENRG

What year did you begin your graduate program?

NOTE: COLLECT THE DATE THE GRADUATE

PROGRAM WAS BEGUN,
REGARDLESS OF THE SCHOOL
ATTENDED AT THE TIME. SOME
STUDENTS MAY HAVE STARTED
THEIR PROGRAMS AT ONE SCHOOL

THEN TRANSFERRED TO THE NPSAS

SCHOOL.

(50-96)

#### SALEVGR1

During the first term you were enrolled at [NPSAS school] in 95-96, what was your level in the program?

#### GRADUATE:

6 = FIRST YEAR

7 = SECOND YEAR

8 = THIRD YEAR

9 = FOURTH YEAR OR BEYOND

-1 = DK -2 = RE



#### SACHGPR1/SACHGPR2/SACHGPR3

Did your degree program, major, or level change during the 95-96 school year while attending[NPSAS school]? If so, what changed?

1 = YES - DEGREE PROGRAM CHANGED

2 = YES - MAJOR OR PROGRAM OF STUDY CHANGED

3 = YES - LEVEL (I.E. FIRST YEAR, SECOND

YEAR) CHANGED

4 = NO CHANGE

-1 = DK - 2 = RE

INTERVIEWER: ENTER 0 TO EXIT OUT OF THE LAST TWO FIELDS

#### SADEGRE2

If SACHGPR1/2/3 ne 1, goto SAMAJOR2

During the last term which ended in [fill dates of last term] at [NPSAS school]), what was your degree or certificate program?

- 1 = CERTIFICATE OR OTHER UNDERGRADUATE FORMAL AWARD
- 2 = ASSOCIATES DEGREE PROGRAM (AA, AAS, AS, ETC)
- 3 = BACHELOR'S DEGREE PROGRAM (BA, BS, ETC)
- 4 = UNDERGRADUATE SPECIAL STUDENT (NON-DEGREE OR NON-MATRICULATED)
- 5 POST-BACCALAUREATE CERTIFICATE PROGRAM
- 6 = MASTER'S DEGREE PROGRAM (MA, MS, MBA, ETC)
- 7 = DOCTORAL OR FIRST PROFESSIONAL DEGREE PROGRAM (PhD, EdD, JD, MD, DDS, DPA, ETC)
- 8 = GRADUATE SPECIAL STUDENT (NON-DEGREE OR NON-MATRICULATED)
- -1 = DK
- -2 = RE

#### SADGTYP2

If SADEGRE2 ne 7, goto SAMAJOR2

Which doctoral or first professional degree were you working toward in your last term at [NPSAS school] in the 1995-96 school year?

#### DOCTORAL/FIRST PROFESSIONAL DEGREES

1= DOCTOR OF PHILOSOPHY (PHD)

2= DOCTOR OF EDUCATION (EDD)

3= DOCTOR OF THEOLOGY (THD)

4= DOCTOR OF BUSINESS ADMIN

5= DOCTOR OF ENGINEERING

6= DOCTOR OF FINE ARTS (DFA)

7= DOCTOR OF PUBLIC ADM. (DPA)

8= DOCTOR OF SCIENCE (DSC/SCD)

9= OTHER DOCTORAL DEGREE

10= CHIROPRACTIC (DC OR DCM)

11= DENTISTRY (DDS OR DMD)

12= MEDICINE (MD)

13= OPTOMETRY (OD)

14= OSTEOPATHIC MEDICINE (DO)

15= PHARMACY (PHARM. D)

16= PODIATRY (DPM OR POD. D)

17= VETERINARY MEDICINE (DVM)

18= LAW (LLB OR JD)

19= THEOLOGY (M.DIV., MHL, BD)

-1 = DK - 2 = RE

#### SAMAJOR2

What was your major (at [NPSAS school]) during your last term in the 95-96 school year?

INTERVIEWER: PLEASE ENTER THE INFO IN THE FOLLOWING SCREENS OF THE USEREXIT

1 =ENTER/ RE-ENTER THE USEREXIT

2 = SKIP OVER THE USEREXIT

3 = UNDECLARED

#### SALEVUG2

During the last term you were enrolled at [NPSAS school] in 95-96, what was your level in the program?

#### **UNDERGRADUATE:**

0 = UNCLASSIFIED UNDERGRADUATE

1 = FIRST YEAR/FRESHMAN

2 = SECOND YEAR/SOPHOMORE

3 = THIRD YEAR/JUNIOR

4 = FOURTH YEAR/SENIOR

5 = FIFTH YEAR OR HIGHER

**UNDERGRADUATE** 

-1 = DK -2 = RE

#### **SALEVGR2**

During the last term you were enrolled at [NPSAS school] in 95-96, what was your level in the program?

#### **GRADUATE:**

6 = FIRST YEAR

7 = SECOND YEAR

8 = THIRD YEAR

9 = FOURTH YEAR OR BEYOND

-1 = DK

-2 = RE

#### **SALEVGDN**

Have you completed the course work for [fill SADEGRE2] program (1=YES 2=NO)?

#### SACMPLPR

Have you completed your program of study and received your [certificate/degree]?

1 = YES, ALREADY COMPLETED PROGRAM AND RECEIVED DEGREE

2 = NO, COMPLETED PROGRAM BUT NOT YET RECEIVED DEGREE

3 = NO, NOT COMPLETED PROGRAM YET.

-1 = DK

-2 = RE

If SCMPLPR=1 goto SADEGMO; else goto **SAEXDGMN** 

#### SACMPCOR

If SALEVGR1=6, SACMPCOR=0; goto SAEXDGMN

Have you completed your coursework and all other requirements for your degree?

0= NOT COMPLETED COURSEWORK.

1= COMPLETED COURSEWORK, BUT NOT **ALL REQUIREMENTS** 

2= COMPLETED ALL REQUIREMENTS.

If SACMPCOR ne 2 goto SAEXDGMN; else goto **SADEGMO** 

#### SADEGMO/SADEGYR

When did you receive your [certificate/degree]?

MONTH:

YEAR:

(1-12)

(95-96)

Goto SAYRG1P

#### SAEXDGMN/SAEXDGYR

When do you expect to receive your [certificate/degree]?

ENTER 13 IN THE MONTH FIELD IF STUDENT DOES NOT PLAN TO COMPLETE DEGREE

MONTH:

YEAR:

(1-12)

(96-99)(00-05)

#### SAYRG1P

In what year did you begin your [fill SADEGRE1/2] program?

20-96 =

-1 = DK

-2 = RE

#### SATRNSFR

If SADEGRE1 ge 5 or SADEGRE2 ge 5, goto SASMPGPA. If SAFSTSCH = 8, goto SASMPGPA

Did you transfer to [NPSAS school] from another school for, or at any point during, 95-96 (1=YES

If SATRNSFR=1, goto SAAMTRNS; else goto SASMPGPA

#### **SAAMTRNS**

Did [NPSAS school] accept all, some, or none of the credits you wanted to transfer?

0= DID NOT TRY TO TRANSFER CREDITS.

1= NONE

2= SOME

3 = ALL

#### SASMPGPA

What is your cumulative GPA at [NPSAS school]?

PROBE AS NEEDED: WOULD YOU SAY YOUR GRADES AT

[NPSAS school] WERE:

1 = MOSTLY A'S (3.75 AND ABOVE)

2 = A'S AND B'S (3.25-3.74)

3 = MOSTLY B'S (2.75-3.24)

4 = B'S AND C'S (2.25-2.74)

5 = MOSTLY C'S (1.75-2.24)

6 = C'S AND D'S (1.25-1.74) 7 = MOSTLY D'S OR BELOW (BELOW 1.24)

8 = NO GRADES OR PASS/FAIL

-1 = DK

-2 = RE

#### **SANUMDEG**

[In addition to the [list known degrees] you just mentioned,] H/how many degrees or certificates have you earned from a postsecondary school?

DO NOT INCLUDE THE DEGREE/CERTIFICATE EARNED OR BEING EARNED AT THE NPSAS SCHOOL.

(0-10)

-1 = DK

-2 = RE

### SAOTHDG1/SAOTHDG2/SAOTHDG3/SAOTHDG4

What degree(s) and certificate(s) have you earned?

ENTER UP TO 4 DEGREES/CERTIFICATES. AT LEAST ONE MUST BE ENTERED ENTER 0 TO EXIT

- 1 = CERTIFICATE OR OTHER UNDERGRADUATE FORMAL AWARD
- 2 = ASSOCIATES DEGREE PROGRAM (AA, AAS, AS, ETC)
- 3 = BACHELOR'S DEGREE PROGRAM (BA, BS, ETC)
- 5 = POST-BACCALAUREATE CERTIFICATE PROGRAM
- 6 = MASTER'S DEGREE PROGRAM (MA, MS, MBA, ETC)
- 7 = DOCTORAL OR FIRST PROFESSIONAL DEGREE PROGRAM (PhD, EdD, JD, MD, DDS, DPA, ETC)

#### SAATT2YR

Have you ever attended a two-year school, such as a community college or junior college?

1=YES

2= NO

#### **SACMPCLS**

If BPS eligible

Have you completed at least one class (or course offering) toward a degree, diploma, or formal award after high school at a postsecondary school (1=YES 2=NO)? \

#### SACMPCLM/SACMPCLY

When did you finish your first class or course offering at a postsecondary school after high school?

MONTH (1-12):\ YEAR (20-96):\

#### A\_END

### STUDENT CATI Section B



- \$5.

#### **SBHOURS**

#### If CLOCK=2, goto SBTUIFEE

About how many hours of instruction were you scheduled to attend each week during the 95-96 school year?

NOTE: THIS INCLUDES CLASSROOM PLUS ANY LAB HOURS

0 - 80 HOURS

-1 = DK

-2 = RE

#### **SBTUIFEE**

If SASCHNUM=1 and SZTUITON gt 0, goto SBBOOKS

How much were your tuition and fees at all other schools you attended in 95-96?

0-60000 =

-1 = DK

-2 = RE

#### **SBOUTST**

At [NPSAS school], did you pay out-of-state or out-of-district tuition or fees?

1 = YES

2 = NO

-1 = DK

-2 = RE

#### **SBBOOKS**

For the 95-96 school year, how much did you spend for... ANNUAL COSTS

INTERVIEWER: IF THE ITEM WAS PAID FOR BY A SCHOLARSHIP ETC. ASK FOR AN ESTIMATE.

...books and supplies? (0-3000)

#### **SBEQUIP**

...equipment, such as computers? (MICROSCOPES, TOOLS, INSTRUMENTS, OR SAFETY EQUIPMENT) (0-8000)

#### **SBSCHRES**

While enrolled during 95-96, where did you live?

1 = on-campus in school-owned housing,

2 = off-campus in school-owned housing,

3 = in an apartment or house other than with your parents or guardians (including houses owned by fraternities and sororities),

4 = with your parents or guardians,

5 = with other relatives, or

6 = some place else?

-1 = DK

-2 = RE

NOTE: IF MORE THAN ONE RESIDENCE, GIVE THE PLACE YOU LIVED THE LONGEST

#### **SBOTHRES**

If SBSCHRES It 1 or SBSCHRES gt 3 or SAAGE ge 25, goto SBNPSED

Who do you live with when you are not in school?

1 = PARENT(S) / GUARDIAN(S)

2 = IN AN APARTMENT OR HOUSE OTHER THAN WITH YOUR PARENTS OR GUARDIANS (INCLUDING HOUSES OWNED BY FRATERNITIES AND SORORITIES).

3 = WITH OTHER RELATIVES

4 = OTHER

-1 = DK

-2 = RE

NOTE: IF MORE THAN ONE RESIDENCE, GIVE THE PLACE YOU LIVED THE LONGEST

If SBOTHRES=1, goto SBPDBRD; else goto SBNPSED

#### **SBPDBRD**

Did you pay room and board while you lived there (1=YES 2=NO)?

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#### **SBNPSED**

If SADEGRE1=7 or SADEGRE2=7 then goto SBENRPUR

What is the highest level of education you expect to complete at [NPSAS school]?

- 0 = NO DEGREE OR CERTIFICATE EXPECTED AND NO TRANSFER
- 1 = TRANSFERRING TO A 2-YEAR SCHOOL -NO DEGREE OR CERTIFICATE EXPECTED
- 2 = TRANSFERRING TO A 4-YEAR SCHOOL -NO DEGREE OR CERTIFICATE EXPECTED
- 3 = CERTIFICATE
- 4 = ASSOCIATE'S DEGREE
- 5 = BACHELOR'S DEGREE
- 6 = COMPLETION OF POST-BACCALAUREATE PROGRAM
- 7 = MASTER'S DEGREE
- 8 = ADVANCED DEGREE -- DOCTORAL OR FIRST-PROFESSIONAL DEGREE (PH.D.,ED.D.,MD,JD,DDS,ETC.)
- -1 = DK
- -2 = RE

#### **SBENRPUR**

If LEVEL=1, got SBHIGHED

[Are you enrolled for a job-related reason or some other reason?/ What is your primary reason for enrolling in this school?]

- I = JOB SKILLS
- 2 = DEGREE OR CERTIFICATE
- 3 = TRANSFER TO A 2-YEAR SCHOOL
- 4 = TRANSFER TO A 4-YEAR SCHOOL
- 5 = TRANSFER, BUT NOT SURE WHERE
- 6 = PERSONAL ENRICHMENT
- -1 = DK
- -2 = RE

If SBNPSED= 8, store 7 in SBHIGHED and goto SBDEGTYP

If SADEGRE1= 7 or SADEGRE2=7, goto SBSAT

What is the highest level of education you ever expect to complete?

- [1 = LESS THAN 4-YEARS -- NO DEGREE OR CERTIFICATE EXPECTED
- 2 = CERTIFICATE
- 3 = ASSOCIATE'S DEGREE]
- 4 = BACHELOR'S DEGREE
- 5 = COMPLETION OF POST-BACCALAUREATE PROGRAM
- 6 = MASTER'S DEGREE
- 7 = ADVANCED DEGREE -- DOCTORAL OR FIRST-PROFESSIONAL DEGREE (PH.D.,ED.D.,MD,JD,DDS,ETC.)
- -1 = DK
- -2 = RE

If SBHIGHED=7, goto SBDEGTYP; else goto SBSAT

#### **SBDEGTYP**

What type of advanced degree do you expect to complete?

#### **Doctoral Degrees**

- l = Doctor of Philosophy (PhD)
- 2= Doctor of Education (EdD)
- 3= Doctor of Theology (ThD)
- 4= Doctor of Business Administration
- 5= Doctor of Engineering
- 6= Doctor of Fine Arts (DFA)
- 7= Doctor of Public Adm. (DPA)
- 8= Doctor of Science (DSC/ScD)
- 9= Other Doctoral Degree

#### First Professional Degrees

- 10= Chiropractic (DC or DCM)
- 11= Dentistry (DDS or DMD)
- 12= Medicine (MD)
- 13= Optometry (OD)
- 14= Osteopathic Medicine (DO)
- 15= Pharmacy (Pharm. D)
- 16= Podiatry (DPM or Pod. D)
- 17= Veterinary Medicine (DVM)
- 18= Law (LLB or JD)
- 19= Theology (M.Div., MHL, BD)
- -1= DK
- -2=RE

#### **SBSAT**

If BPSELIG ne 1, goto SBGRE
If SBHIGHED=1 or 2, goto SBTEST1
If LEVEL ge 3, goto SBTEST1
If SZSATAV = <y> or SZACTAV = <y>, goto SBAPTST

Did you take the SAT (1=YES 2=NO)?

If SBSAT=1, goto SBSAT\_V; else goto SBACT

#### SBSAT\_V

SAT Verbal Score:

#### SBSAT\_M

SAT Math Score:

#### SBSAT\_R

**SAT Reasoning Score:** 

#### SBSAT\_YR

Year Taken

If SBSAT=1, goto SBTEST1; else goto SBACT

#### **SBACT**

Did you take the ACT (1=YES 2=NO)?

If SBACT=1, goto SBACT\_S; else goto SBTEST1

#### SBTEST1

Composite ACT score:

#### SBACT\_YR

Year Taken:

Goto SBTEST1

#### **SBGRE**

If SADEGRE1 le 2, goto SBAPTST
If SZGREAV = <y> and SZGRESV gt 0 or SZGRESM gt
0 or SZGRESA gt 0 then goto SBAPTST

Did you take the GRE (1=YES 2=NO)?

If SBGRE=1 goto SBGRE\_V; else goto SBAPTST

SBGRE\_V

GRE Verbal:

SBGRE\_M

GRE Math:

SBGRE\_A

**GRE Analytic:** 

SBGRE\_YR

Year GRE taken:

#### SBTEST1--SBTEST4

Any (other) [undergraduate/graduate] admissions tests?

ENTER ALL THAT APPLY UP TO 4 ADDITIONAL TESTS

#### [Undergraduate Tests

- 1. ASSET (Forms A,B or C)
- 2. CPAT
- 3. CPP
- 4. CPT
- 5. P.A.R.
- 6. PSAT
- 7. TABE
- 8. TALS (Forms A or B)
- 9. WONDERLIC (Scholastic Level)
- 10. WONDERLIC (Personnel test)
- 11. TOEFL/

#### **Graduate Tests**

- 21. DAT
- **22. GMAT**
- 23. LSAT
- **24. MCAT**
- 25. Miller's Analogies]
- 31. Other Test, Specify

0= NONE/NO MORE

If SBTEST\*=0 or SBTEST4 gt 0, goto SBAPTST





#### **SBAPTST**

If SBHIGHED=1 or 2, goto SBGRADRT If BBSELIG ne 1, goto SBGRADRT If LEVEL ge 3, goto SBGRADRT

Did you take any AP tests (advance placement tests) (1=YES 2=NO)?

If SBAPTST=1 goto SBAP1; else goto SBGRADRT

#### SBAP1/SBAP1S -- SBAP6/SBAP6S

Which ones did you take and what was your score? ENTER UP TO 6 TESTS. ENTER NA FOR NAME TO EXIT THIS SCREEN

- I = Art-History of Art
- 2= Art-Studio (Drawing/General Portfolio)
- 3= Biology
- 4= Chemistry
- 5= Computer Science-A
- 6= Computer Science-AB
- 7= Economics-Microeconomics
- 8= Economics-Macroeconomics
- 9= Eng -Language Composition
- 10= Eng -Lit and Composition
- 11= French-Language
- 12= French-Literature
- 13= German-Language
- 14= Govern and Politics-Comparative
- 15= Govern and Politics-US
- 16= History-European
- 17= History-United States
- 18= Latin-Virgil
- 19≃ Latin-Literature
- 20= Calculus-AB
- 21= Calculus-BC
- 22= Music Theory
- 23= Physics-B
- 24= Physics-C (Mechanics)
- 25= Physics-C(Electricity&Magnetism)
- 26= Psychology
- 27= Spanish-Language
- 28= Spanish-Literature

NAME OF TEST

**SCORE (1-5)** 

#### **SBGRADRT**

If SADEGRE1=4 or SADEGRE2=4 goto SBRSN1 If CTSTTYPE gt 1, goto SBRSN1

In deciding to attend [NPSAS school], did you consider the ...

INTERVIEWER: I = YES 2 = NO - 1 = DK - 2 = RE

...graduation rate?

If LEVEL=1 or 2 and control=1 or 2, goto SBCRIMRT; else goto SBPLACRT

#### **SBCRIMRT**

...crime rate?

Goto SBRSN1

#### **SBPLACRT**

...job placement rate?

#### SBRSN1 -- SBRSN4

If BPSELIG ne 1, goto B\_END

Why did you decide to attend [NPSAS school]? INTERVIEWER: CODE ALL THAT APPLY (ENTER 0 IF NONE, OR NO MORE)

#### COSTS

- 1= SHORTER TIME TO FINISH
- 2= COSTS WERE LESS
- 3= GOT MORE FINANCIAL AID
- 4= TUITION WAS LOW
- 5= OTHER COST REASON

#### **INFLUENCE**

- 6= PARENTS WENT THERE
- 7= FRIENDS/SPOUSE WENT THERE
- **8= PARENTS WANTED STUDENT TO GO**

#### THERE

- 9= TEACHER/GUIDANCE COUNSELOR RECOMMENDED
- 10= OTHER INFLUENCE FACTORS

#### LOCATION

- 11= CLOSE TO JOB
- 12= COULD LIVE AT HOME
- 13= CLOSE TO HOME
- 14= OTHER LOCATION REASON

#### REPUTATION / SCHOOL RELATED

- 15= LIKED THE CAMPUS
- 16= SCHOOL HAS GOOD REPUTATION
- 17= JOB PLACEMENT
- 18= FACILITIES/EQUIPMENT
- 19= FACULTY REPUTATION
- 20= OTHER REASON
- -1= DK
- -2 = RE

If SBRSN1=-1, -2, or 0, goto B\_END If SBRSN2=-1, -2, or 0, goto B\_END Else goto SBRSNMST

#### **SBRSNMST**

Which of the reasons you mentioned was most important to your selection of [NPSAS school]?

- 1= SHORTER TIME TO FINISH
- 2= COSTS WERE LESS
- 3= GOT MORE FINANCIAL AID
- 4= TUITION WAS LOW
- 5= OTHER COST REASON
- 6= PARENTS WENT THERE
- 7= FRIENDS/SPOUSE WENT THERE
- 8= PARENTS WANTED STUDENT TO GO

#### THERE

9= TEACHER/GUIDANCE COUNSELOR RECOMMENDED

10= OTHER INFLUENCE FACTORS

- 11= CLOSE TO JOB
- 12= COULD LIVE AT HOME
- 13= CLOSE TO HOME
- 14= OTHER LOCATION REASON
- 15= LIKED THE CAMPUS
- 16= SCHOOL HAS GOOD REPUTATION
- 17= JOB PLACEMENT
- 18= FACILITIES/EQUIPMENT
- 19= FACULTY REPUTATION
- 20= OTHER REASON

**B\_END** 

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# STUDENT CATI Section C



#### **SCCURMAR**

I have some questions about how you paid for your 95-96 educational expenses, but first I need to What's your marital status? know...

1 = SINGLE, NEVER MARRIED

2 = MARRIED

3 = SEPARATED

4 = DIVORCED

5 = WIDOWED

-1 = DK

-2 = RE

If SCCURMAR=1 or 2, goto SCCNTRY; else goto SCMARR95

#### SCMARR95

What was your marital status on July 1, 1995?

1 = SINGLE, NEVER MARRIED

2 = MARRIED

3 = SEPARATED

4 = DIVORCED

5 = WIDOWED

-1 = DK

-2 = RE

If BPSELIG=1 then goto SCMOMARR; else goto **SCCNTRY** 

#### SCMOMARR/SCYRMARR

What month and year did you get [married/separated/ divorced/widowed]?

MONTH: (1-12)

YEAR: (00-96)

#### **SCCNTRY**

In what country were you born?

1 = UNITED STATES, INCLUDING PUERTO **RICO AND ITS TERRITORIES** 

2 = CANADA

14 = JORDAN

3 = CHINA

15 = KOREA (REPUBLIC

OF KOREA)

4 = CUBA

16 = MALAYSIA

5 = EGYPT

17 = MEXICO

6 = FRANCE

18 = PAKISTAN

7 = GERMANY

19 = PHILIPPINES 20 = SAUDI ARABIA

8 = HONG KONG 9 = INDIA

21 = TAIWAN

10 = INDONESIA

22 = THAILAND

11 = IRAN

23 = UNITED KINGDOM

(ENGLAND, SCOTLAND, WALES)

12 = ISRAEL

24 = VENEZUELA

13 = JAPAN

25 = VIETNAM

26 = OTHER COUNTRY (DO NOT SPECIFY)

#### SCUS\_CIT

If SZUSCIT=1, store 1 in SCUS\_CIT and goto CFILL1 If SCCNTRY=1, store 1 in SCUS\_CIT and goto CFILL1

Are you a U.S. citizen?

1 = YES, CITIZEN OR US NATIONAL.

2 = NO, BUT IS A PERMANENT RESIDENT OR OTHER ELIGIBLE NON-CITIZEN WITH TEMPORARY RESIDENT'S CARD.

3 = NO. IN THE COUNTRY ON F1 OR F2 STUDENT VISA OR ON A J1 OR J2 **EXCHANGE VISITOR VISA.** 

-1 = DK

-2 = RE

#### CFILL1

#### **SCPARMAR**

If SAAGE ge 31, CWHPAR=4, CPARGRD=4, CFILL2=blank; goto SCUSBOND

Are your parents...

INTERVIEWER: ADOPTIVE PARENTS ARE CONSIDERED PARENTS.

- 1 = married to each other,
- 2 = divorced.
- 3 =separated,
- 4 = never married to each other, or
- 5 = is either one (or both) of your parents deceased?
- 6 = NEVER KNEW PARENTS AND NO GUARDIANS.
- 7 = NEVER KNEW PARENTS AND HAS LEGAL GUARDIAN(S).
- -1 = DK
- -2 = RE

If SCPARMAR=5, goto SCPARDCS; else goto CFILL2

#### **SCPARDCS**

Which of your parents is deceased?

INTERVIEWER: IF THE RESPONDENT DOES NOT WANT TO ANSWER FURTHER QUESTIONS ABOUT THE DECEASED PARENT, USE OPTIONS 4, 5 OR 6

- 1 = MOTHER
- 2 = FATHER
- 3 = BOTH
- 4 = SENSITIVE, MOTHER'S DEATH
- 5 = SENSITIVE, FATHER'S DEATH
- 6 = SENSITIVE, BOTH PARENTS' DEATH
- -1 = DK
- -2 = RE

#### **SCGUARD**

If DPNDSTAT=2 goto CFILL2

Do you have any legal guardians (other than your parents)?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

If SCGUARD=1 goto SCGRDTYP; else set SCGRTYP= blank and goto CFILL2

#### **SCGRDTYP**

TYPE OF GUARDIAN.
THIS SCREEN IS AN INTERVIEWER
INSTRUCTION AND SHOULD NOT BE READ
TO THE RESPONDENT.

- 1 = GUARDIANS
- 2 = FEMALE GUARDIAN ONLY
- 3 = MALE GUARDIAN ONLY.
- -1 = DK
- -2 = RE

**CFILL2** -- indicates fill text for questions about parents/guardians.

#### **SCPARLON**

To help meet your 95-96 school expenses, how much money did you borrow from your [fill CFILL2]?

NOTE: THIS IS MONEY THE STUDENT EXPECTS TO REPAY

0-80,000 DOLLARS

- -1 = DK
- -2 = RE

#### **SCOTHLON**

How much have you borrowed from friends and other family members?

NOTE: DOES NOT INCLUDE SPOUSE, IF MARRIED

0-80,000 DOLLARS

- -1 = DK
- -2 = RE

If CFILL2 eq ⋄, goto SCUSBOND; else goto SCPARTUI

#### **SCPARTUI**

During 1995-96, did your [fill CFILL2] pay for any of your...

... Tuition or fees (1=YES 2=NO)?

#### **SCPARRM**

If SBSCHRES eq <1> or <2>

...Room and board (1=YES 2=NO)?

#### **SCPARBK**

...Books or equipment (1=YES 2=NO)?

#### **SCPARALW**

Did your [fill CFILL2] give you an allowance that you don't have to repay (I=YES 2=NO)?

If SCPARALW=I goto SCALWAMT; else goto SCOTSUP

#### **SCALWAMT**

How much allowance did your [fill CFILL2]give you (1-80,000)?

#### **SCALWFRQ**

How often?

I= PER WEEK

2= PER MONTH

3= PER TERM/SEMESTER

4= PER YEAR

#### **SCOTSUP**

During 95-96,[in addition to] [tuition/fees, /room and board, /books/equipment, /allowance,] did your [fill CFILL2] provide you with [housing, meals,] clothing, the use of charge cards, insurance, help with car payments, repairs, or any other support?

I = YES

2 = NO

-1 = DK

-2 = RE

If SCOTSUP=1, goto SCSUPAMT; else goto SCSUPHS

#### **SCSUPAMT**

How much would you say it was worth for the year (SINCE JULY 1, 1995) (1-80,000)? NOTE: PROMPT IF LESS THAN \$300 FOR THE YEAR.

If SCSUPAMT=-1, goto SCSUPEST
If SCSUPAMT ge 1000, goto SCSUPHS; else goto
SCUSBOND

#### **SCSUPEST**

Would you say that it was more than \$1000 (1=YES 2=NO)?

If SCSUPEST=1 goto SCSUPHS; else goto SCUSBOND

#### **SCSUPHS**

Did your [fill CFILL2] provide you with (1=YES 2=NO)...

[...Housing?]

#### **SCSUPMLS**

[...Meals?]

#### **SCSUPCLS**

...Clothing?

#### **SCSUPCHG**

... Charge cards?

#### **SCSUPCAR**

...Help on car loan payments?

#### **SCSUPREP**

...Help on car repair bills?

#### **SCSUPINS**

...Help on any type of insurance, (CAR, HEALTH, OR LIFE INSURANCE)?

#### **SCSUPOTH**

...Any other type of assistance (SUCH AS AIR LINE TICKETS)?

#### SCUSBOND

To meet your 95-96 educational expenses, [did you or your [fill CFILL2]/did you]...

...use U.S. savings bonds (I=YES 2=NO)?

#### **SCHOMEQ**

...take out a home equity loan, a second mortgage, or refinance any real estate (1=YES 2=NO)?

#### **SCPREPAY**

...use a college tuition prepayment or guarantee program, or a tuition savings plan (1=YES 2=NO)?

If SCPREPAY=1 goto SCPRETYP; else goto SCOTPRLN

#### **SCPRETYP**

What type of prepayment plan was it?

1 = STATE-SPONSORED

2 = SCHOOL-SPONSORED

3 = A PRIVATE PLAN

4 = OTHER TYPE

-1 = DK - 2 = RE

#### **SCOTPRLN**

Ask if SAAGE le <23> and CFILL2 ne <>; else goto SCASST

Did your [fill CFILL2] take out any loans, other than a home equity loan, to help pay for your 95-96 school expenses (1=YES 2=NO)?

#### SCASST

Ask if CTSTTYPE gt 1 and SZASSIST le 0; else goto SCWAIV
If CTSTTYPE =1 goto SCNUMJBS

Between July 1, 1995 and June 30, 1996, did you have a graduate, research or teaching assistantship (1=YES 2=NO)?

#### **SCWAIV**

Did you receive any tuition waiver, discount, or reimbursement from your school in addition to the assistantship (1=YES 2=NO)?

#### **SCNUMJBS**

Between July 1, 1995 and June 30, 1996, how many jobs did you have (0-15)?

[NOTE: THE RESPONDENT HAD AN ASSISTANTSHIP OR A WORK-STUDY]

#### **SCREIMB**

Did you receive tuition reimbursement from your employer (1=YES 2=NO)?

If SCCURMAR=2, goto SCSPSEMP; else goto C\_END

#### **SCSPSEMP**

'Was your spouse employed for pay (1=YES 2=NO)?

Goto C\_END

#### **SCEMPJBP**

INTERVIEWER:

PLEASE VERIFY THAT THE RESPONDENT HAD [fill·SCNUMJBS] JOBS BETWEEN JULY 1, 1995 AND JUNE 30, 1996.

1 = YES, THAT'S CORRECT

2 = NO, CHANGE THE NUMBER OF JOBS

C\_END

### STUDENT CATI Section D

#### SDRECVD1

#### If SZTOTAID gt 0, goto SDRIGHT

Did you receive any grants. scholarships, tuition waivers, discounts, fellowships, loans or any other financial aid for 95-96?

1 = YES

2 = NO

-1 = DK

-2 = RE

If SDRECVD1 =1 goto SDAMT01
If SDRECVD1 ne 1, goto SDAPPLD

#### **SDRIGHT**

According to your school, you received: [ Pell Grant \$[fill SZPELL]/Supplemental Education Opportunity Grant \$[fill SZPELL]/some federal loans \$[fill SZLOANAM]/assistantships \$[fill SZASSIST]/tuition waivers \$[fill SZTUIWAV]/Federal Work Study \$[fill SZFWS]/Veteran's Benefits \$[fill SZVETAID]/Some Aid from the Federal govt. \$[fill SZOFEDAM]/Some Aid from the Institution \$[fill SZOTINAM]/Aid from the

State some source \$[fill

\$[fill SZSTAID]/Aid from SZOTHAID]] for

a total of about \$[fill DTOTAID].

Does that sound about right (1=YES 2=NO)?

SDAMT01--10/SDTYP01--10/SDSRC01--10/SDNAM01--10

Excluding gifts or loans from family and friends, [what financial aid did you receive/did you receive any other financial aid] while you were at [NPSAS school] during the 95-96 school year?

Type of Award:

1=Grant or scholarship

2=Loans

3=Work Study

4=Assistantships

5=Veteran Benefits

6=Voc. Rehab.

3=Institution

7=Tuition Waiver

8=Other

Source of Award:

1=Federal

2=State

te

4=Employer 5=Other

#### **SDAPPLD**

Did you apply for any financial aid for the time you attended [NPSAS school] during the 95-96 school year?

INCLUDE ANY FINANCIAL AID AWARDED FROM FEDERAL, STATE, OR INSTITUTIONAL SOURCES BUT EXCLUDE FINANCIAL ASSISTANCE FROM FAMILY OR FRIENDS, REGARDLESS OF WHETHER OR NOT ANY AID WAS AWARDED.

1 = YES

2 = NO

-1 = DK

-2 = RE

If SDAPPLD=1, goto SDAWARD If SDAPPLD=2, goto SDNVAP01 If SDAPPLD=-1 or -2, goto SDOAMT01

#### **SDAWARD**

[According to your school records, you applied for financial aid for 95-96.] Were you awarded any aid for the year?

1 = YES

2 = NO

-1 = DK

-2 = RE

### If SDAWARD=1, goto SDREFUS1; else goto SDOAMT01

#### **SDACCEPT**

Did you accept all of the aid you were awarded for the year?

1 = YES

2 = NO

-1 = DK

-2 = RE

If SDACCEPT=2, goto SDREFUS1; else goto SDOAMT01.

#### SDREFUS1

What did you refuse?

ENTER ALL THE CODES IN THE ORDER MENTIONED BY THE RESPONDENT. ENTER 0 TO EXIT

1= GRANTS/SCHOLARSHIPS

2= LOANS

3= COLLEGE WORK STUDY

[4= ASSISTANTSHIP (GRADUATE/FIRST PROF STUDENTS ONLY)

5= OTHER

#### SDNVAP01 -- SDNVAP10

What were the reasons you and your family did not apply for financial aid?

ENTER ALL THE CODES IN THE ORDER MENTIONED BY THE RESPONDENT. ENTER 0 TO EXIT

- 1. FAMILY AND STUDENT COULD PAY
- 2. NOT WILLING TO GO INTO DEBT
- 3. FAMILY INCOME TOO HIGH TO QUALIFY
- 4. GRADES/TEST SCORES TOO LOW TO **QUALIFY**
- 5. AID APPLICATION PROCESS TOO DIFFICULT
- 6. DID NOT WANT TO DISCLOSE FINANCIAL SITUATION
- 7. PART-TIME STUDENT -- INELIGIBLE FOR
- 8. NO MONEY WAS AVAILABLE
- 9. MISSED APPLICATION DEADLINE
- 10. OTHER REASON

#### SDOAMT01--05/SDOTYP01--05/SDOSRC01--05/SDONAM01--05

If SASCHNUM=1, goto SDASSIST

Did you get any financial aid while attending schools other than [NPSAS school]in 1995-96; What financial aid did you receive?

#### Options for Type of Award (Press F3 if not known)

1=Grant or scholarship

2=Loans

3=Work Study 5=Veteran Benefits 4=Assistantships

7=Tuition Waiver

6=Voc. Rehab. 8=Other

Options for source of Award (Press F3 if not

2=State

known)

1=Federal

3=Institution

4=Employer 5=Other

#### **SDASTAMT**

For the 95-96 school year, how much aid did you receive in assistantships or fellowships (INCLUDE TEACHING AND RESEARCH ASSISTANTSHIPS) (0-999.999)?

If SDASTAMT gt 0 goto SDTCHAMT: else goto SDREIMBR

#### **SDTCHAMT**

Of the \$[fill SDASTAMT], how much of it was through...

... A teaching assistantship? (0-999,999)

If SDTCHAMT = SDASTAMT, goto SDREIMBR; else goto SDRESAMT

#### **SDRESAMT**

... A research assistantship or fellowship?

If SDTCHAMT+SDRESAMT=SDASTAMT, goto SDREIMBR; else goto SDOTHAMT

#### **SDOTHAMT**

...Other kind of assistantship or fellowship? (0-999,999)

#### **SDREIMBR**

For the 95-96 school year, how much did you receive as employer provided tuition reimbursement (0-999,999)?

#### **SDEVRBOR**

If BPSELIG=1 goto SDFGNAID

INTERVIEWER: ENTER I TO INDICATE "ALL OF IT"

[Including the \$[fill SDTMPBOR] from[your [fill parents] and all other sources/all sources],] How much have you borrowed for your education since you left high school

(0-200,000)?...

If SDBOREVR gt 0, goto SDBORFED; else goto **SDFGNAID** 

#### **SDBORFED**

Ask if SDEVRBOR gt <0> and SCUS\_CIT ne <3>; else goto SDBORPER

How much of the \$[fill SDEVRBOR:,] was in Federal loans (0-200,000)?.....

If gt 0, goto SDOWEFED; else goto SDBORPER

#### **SDOWEFED**

Of the \$[fill SDBORFED] in federal loans, how much do you still owe?.....

#### **SDBORPER**

How much of the \$[fill SDEVRBOR] was from friends and family including parents (0-200,000) (ENTER 3 FOR DIFF)?......

If SDBORPER gt 0 goto SDOWEPER; else gotoSDBORGRD

#### **SDOWEPER**

Of the \$[fill SDBORPER] from friends and family, how much do you still owe?.....

#### **SDDBORGRD**

Ask if SDEVRBOR gt 0 and CTSTTYPE gt 1; else goto SDOTHOWE

How much of the \$[fill SDEVRBOR] you've borrowed was for graduate school (0-200,000)?.......

#### **SDOTHOWE**

You borrowed about \$[fill DIFF\_INT] from sources other than the federal government and your family and friends. How much of that would you say you owe?

THE DOLLAR AMOUNT SHOWN IS THE DIFFERENCE BETWEEN TOTAL BORROWED AND THE SUM OF FEDERAL AND FAMILY/FRIEND LOANS JUST ENTERED. BACK UP TO CORRECT IF R DISAGREES WITH AMOUNT SPECIFIED.

0-200,000 DOLLARS

#### **SDFGNAID**

#### If SCUS\_CIT=1, goto SDREPAY

During the 95-96 school year, did you receive any financial aid such as loans, scholarships or grants from your own country's government?

l=YES

2= NO

-1 = DK

-2 = RE

#### **SDREPAY**

If SDBORFED le <0> or SDBORFED=SDOWEFED, goto D\_END

Are you currently making payments on your education loans (1= YES 2= NO)?

If SDREPAY=1, goto SDREPAMT; else goto D\_END

#### **SDREPAMT**

About how much are your monthly payments (0-1000)?

**D\_END** 



### STUDENT CATI Section E



### SESCHJOB -- indicator that student held work study job or assistantship

If SZFWS gt 0 or SZASST gt 0 then SESCHJOB=1; If SDAMT01-- SDAMT10 (any one of the variables in the set) ge 1 and

the corresponding SDTYP01--SDTYP10 = 3 or 4, then SESCHJOB=1;

If SDOAMT01 -- SDOAMT05 (any one of the variables in the set) ge 1 and

the corresponding SDOTYP01 -- SDOTYP05 = 3 or 4, then SESCHJOB=1.

#### SEPRNOIN -- indicates entry into jobs UX

Ask if SCNUMJBS GT 0; if SCNUMJBS=0, goto SEENRPLN.

[You told me earlier that you had [fill SCNUMJBS] jobs during 95-96. I'd like you to tell me about your principal job./You told me earlier that you held a job during 95-96.] What did you do and what type of company did you work for?

NOTE: PRINCIPAL JOB IS THE JOB HELD WHILE ENROLLED. IF NONE OR IF MORE THAN ONE, CHOOSE THE JOB WORKED THE LONGEST NUMBER OF HOURS, PAYING THE MOST, OR MOST LOSELY RELATED TO COURSE OF STUDY.

INTERVIEWER: PLEASE ENTER THE INFO IN THE FOLLOWING SCREENS OF THE USEREXIT

1 = RE-ENTER THE USEREXIT [2 = SKIP OVER THE USEREXIT]

#### **SEONOFF**

JOB IN QUESTION: [fill SEPRNOCT]

Was your principal job primarily on or off-campus?

1 = ON-CAMPUS

2 = OFF-CAMPUS

3 = BOTH ON AND OFF CAMPUS

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#### **SESCHEMP**

Were you working for your school or for someone else?

1 = SCHOOL

2 = SOMEONE ELSE

If SESCHEMP=1; goto SESTMO. Else goto SEORGTYP.

#### **SEORGTYP**

Is this a private, for-profit company?

INTERVIEWER: DO NOT READ ALTERNATIVES. IF STUDENT SAYS "NO", PROBE. IF STUDENT JUST TOLD YOU THAT THEY WORK FOR THE COUNTY OR STATE OR FEDERAL GOVERNMENT---DON'T ASK IF IT'S PRIVATE, FOR PROFIT...JUST CONFIRM WHAT THEY SAID AND ENTER THE APPROPRIATE CODE.

1= PRIVATE, FOR-PROFIT

2= PRIVATE, NOT-FOR-PROFIT OR NONPROFIT

3= LOCAL GOVERNMENT

4= STATE GOVERNMENT

5= FEDERAL GOVERNMENT

6= SELF-EMPLOYED IN YOUR OWN BUSINESS, PROFESSIONAL PRACTICE, OR FARM THAT IS NOTINCORPORATED

7= SELF-EMPLOYED IN YOUR OWN BUSINESS, PROFESSIONAL PRACTICE, OR FARM THAT IS INCORPORATED

8= OTHER

-1= DK

-2= RE

#### SEST\_MO SEST\_YR

When did [your principal job/this job] start? GET STARTING MONTH AND YEAR IRRESPECTIVE OF THE NPSAS YEAR.

MONTH:

YEAR:

(1-12)

(20-96)

#### **SESTLEMP**

Are you still working at this job (1=YES 2=NO)?

If SESTLEMP=1 then goto SERELMAJ
If SESTLEMP=2 then goto SEEND\_MO

SEEND\_MO SEEND\_YR

When did the job end?

MONTH: YEAR: (1-12) (94-96)

#### **SERELMAJ**

How closely was your principal job related to your [planned/current] major or field of study?

1 = CLOSELY RELATED

2 = SOMEWHAT RELATED

3 = NOT RELATED

-1 = DK

-2 = RE

If SZFWS le <0> or if SZASSIST le <0> and SCASST ne <1>, goto SEHOURS.

If SDREFUS1 or SDREFUS2 or SDREFUS3 or SDREFUS4 or SDREFUS5 eq 3, then goto SEHOURS. Else goto SEPRNCWS

# **SEPRNCWS**

Was the principal job you just told me about your [College Work Study job/assistantship] for 95-96?

1= YES

2 = NO

If SEPRNCWS eq <2> and SZFWS gt 0 then goto SECWSOFF; else goto SEHOURS.

# SECWSOFF

Was your College Work Study job primarily on or off-campus?

1=ON-CAMPUS 2=OFF-CAMPUS

3=BOTH ON AND OFF-CAMPUS

# **SECWSTYP**

Were you working for your school or someone else?

1=SCHOOL 2=SOMEONE ELSE

# **SECOMSRV**

Was your work study job part of a community service project (1=YES 2=NO)?

#### **SEHOURS**

About how many hours did you work per week while you were enrolled (July 1, 1995 through June 30, 1996)?

0-99

-1 = DK

-2 = RE

#### **SEENRAMT**

About how much did you earn from all jobs while you were enrolled?

AMOUNT: (0-100,000)

# **SEENRFRO**

FREQUENCY:

1= PER HOUR

2= PER WEEK

3= PER MONTH

4= PER TERM

5= FOR THE YEAR 95-96

# **SEENRWKS**

Did you work for all or most of the weeks while you were enrolled?

1= YES, EVERY WEEK WHILE ENROLLED

2= YES, MOST OF THE WEEKS WHILE ENROLLED

3= NO, ONLY ABOUT HALF OF THE WEEKS WHILE ENROLLED

4= NO, LESS THAN HALF OF THE WEEKS WHILE ENROLLED

-1= DK

-2=RE

If SEST\_MO and SEST\_YR ge 08/95 (later than Jul 95) then goto SESMRWRK;

or if SESTLEMP ne 1 and SEEND\_MO and SEEND\_YR le 6/95 (earlier than Jul 95) then goto SESMRWRK. Otherwise goto SELICENS.

#### **SESMRWRK**

Did you work during the summer of 1995?

1 = YES

2 = NO

-1 = DK

-2 = RE

If SESMRWRK ne 1 then goto SELICENS; else goto SESMRHRS.

#### **SESMRHRS**

About how many hours did you work per week at the job held last summer?

1-99

-1 = DK

-2 = RE

#### **SELICENS**

For some jobs, licensing or certification is recommended or required.

How many licenses or certifications do you have?

(INCLUDE TEACHER'S CERTIFICATION, DAYCARE LICENSE, REAL-ESTATE LICENSE, PILOT'S LICENSE, ETC..)

0-8 =

-1 = DK

-2 = RE

INTERVIEWER: ENTER THE THREE MOST RECENT CERTIFICATES OR LICENSES OBTAINED IN THE NEXT SCREEN.

If SELICENS ne 1-8, goto SEROLE.

# SELIC1/SELIC2/SELIC3

1 = AIR CONDITIONING/HEATING SYSTEMS

2 = ANIMAL CARE/VETERINARIAN ASSISTANT

3 = APPLIANCE REPAIR (WASHER, STOVE)

4 = ARCHITECTURE/DRAFTING

5 = AUTOMOTIVE MECHANIC/REPAIR

6 = BOOKKEEPING/ACCOUNTING (NOT CPA)

7 = BUSINESS/FINANCIAL (BROKER)

8 = CERTIFIED PUBLIC ACCOUNTANT

9 = CHILDCARE/DAYCARE

10 = COMMUNICATIONS LICENSE (HAM RADIO, FCC)

11 = COMPUTER PROGRAMMER/SYSTEMS TECHNICIAN

12 = COMPUTER REPAIR/ELECTRONICS/TV/VCR

13 = COSMETOLOGY/BEAUTICIAN/BARBER

14 = ELECTRICIAN

15 = ENGINEERING (P.E.)

16 = FIRST AID/CPR/LIFESAVING

17 = FOOD SERVICE

18 = INTERIOR DECORATING

19 = LAW ENFORCEMENT/PROTECTIVE SERVICE

20 = LEGAL ASSISTANT (PARA-LEGAL)

21 = MACHINIST

22 = MEDICAL/DENTAL TECHNICIAN

23 = MEDICAL/DENTAL (DENTIST/PHARMACIST)

24 = NURSING AIDE/HOME HEALTH AIDE

25 = NURSING(RN, LPN)

26 = PERSONAL SERVICES (MASSAGE THERAPY)

27 = PLUMBING/WELDING

28 = REAL ESTATE

29 = SECRETARIAL

30 = TEACHER'S AIDE

31 = TEACHER CERTIFICATION

32 = TRANSPORTATION/PILOT LICENSE

33 = VEHICLE LICENSE (TAXI,TRUCK)

34 = TRAVEL AGENT

40 = OTHER - 1 = DK - 2 = RE

If SEHOURS eq 0, goto SEPROGRM Else goto SEROLE

#### **SEROLE**

While you were enrolled and working, would you say you were primarily...

1 = ...a student working to meet expenses or

2 = ...an employee who's decided to enroll in school?

-1 = DK

-2 = RE

If SEROLE eq 2 goto SEPERS; else goto SEMONEY



# SEMONEY/SEEXPENS/SEJOBEXP/SETIME/ SECHOICE/SESCHED/SECONTNT/SECAREER/ SELIBRY

Were any of the following important considerations in your decision to work while in school (I=YES 2=NO)...

- ...Providing spending money.
- ...Paying for tuition and living expenses.
- ... Gaining experience for future employment.

Did having a job... (1=YES 2=NO)

- ...Restrict your choice of classes.
- ...Limit number of classes you could take.
- ...Limit class schedules.
- ... Assist with school subjects.
- ...Help prepare for a career or occupation.
- ...Limit your access to the library.

Goto SEPROGRM

# SEPERS/SERECR/SEJOBREQ/SEJOBADV/ SENEWSKL/SEDEGREE

If G/1P, goto SEPROGRM.
If SEPRNCWS ne 2, goto SEPROGRM.

Were each of the following important considerations in your decision to go to school while working

- (1=YES 2=NO)...
  - ...Personal enrichment or interest in the subject
  - ...Recreation.
  - ...Required for employment in your current job.
  - ...To gain skills for advancement in your current job.
    - ...To gain skills needed for a new job or career.
    - ...To complete a degree or certification program.

# **SEPROGRM**

During 95-96, did you participate in an internship, apprenticeship, or cooperative education program (1=YES 2=NO)?

If SEPROGRM eq 1, goto SEPROG1; else goto SEENRPLN.

# SEPROG1/SEPROG2/SEPROG3

Specify type of programs:

- I = INTERNSHIP
- 2 = APPRENTICESHIP
- 3 = COOPERATIVE EDUCATION PROGRAM

If FTB, goto SEENRPLN; else goto SEVET

# **SEENRPLN**

What are your plans for school in 96-97?

Do you expect to be...

- 0 = Not enrolled
- l = Enrolled full-time
- 2 = Enrolled part-time.
- -1 = DK
- -2 = RE

# **SEEMPPLN**

What are your plans for work next year? Do you expect to be...

- 0 = Not working.
- 1 = Working full-time.
- 2 = Working part-time.
- -1 = DK
- -2 = RE

#### **SEVET**

If SCUS\_CIT NE 1 and SCUS\_CIT ne 2 or SAAGE It 18, then goto E\_END.

If SAAGE ge 20 and SZVETRAN not blank, then SEVET eq SZVETRAN; goto SEBRNCH.
Otherwise, ask SEVET.

If SAAGE eq 18 or 19, skip SEVET and goto SEACTDUT.

INTERVIEWER: 1=YES 2=NO

Are you a veteran of the U.S. military? If SEVET eq 1 goto SEBRNCH; else goto SEACTDUT.

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# **SEACTDUT**

Are you currently in the reserves or on active duty in the US Military?

If SEACTDUT eq 1, goto SEBRNCH; else goto E\_END

# **SEBRNCH**

In which branch of the service[do/did] you serve?

1 = ARMY

4 = MARINES

2 = NAVY

5 = COAST GUARD

J = / LIK

3 = AIR FORCE 6 = NATIONAL GUARD

-1 = DK

-2 = RE

If SEACTDUT eq 1, goto SEMILTYP; else goto E\_END

# **SEMILTYP**

Is that...

1 - A at

1 = Active duty or

-1 = DK

2 = Reserves?

-2 = RE

E\_END.



# STUDENT CATI Section F



# SFTAX95

If DPNDSTAT=2, goto SFSPSENR

Did anyone claim you as a dependent on their 1995 taxes?

0 = NO

1 = YES, PARENT(S)/GUARDIAN(S)

3 = YES, SPOUSE

4 = YES, ANOTHER INDIVIDUAL

-1 = DK -2 = RE

#### SFTAX94

If DPNDSTAT=2, goto SFSPSENR

Did anyone claim you as a dependent on their 1994 taxes?

0 = NO

1 = YES, PARENT(S)/GUARDIAN(S)

3 = YES, SPOUSE

4 = YES, ANOTHER INDIVIDUAL

-1 = DK -2 = RE

#### **SFSPSENR**

If SCCURMAR ne 2, goto SFDEPEND

During the 1995-96 school year, was your spouse enrolled at a postsecondary school? (ENROLLED AT LEAST HALF-TIME)

1 = YES

2 = NO

-1 = DK

-2 = RE

If SFSPSENR = 1, goto SFSPSAID; else goto SFDEPEND

# **SFSPSAID**

Did [she/he] receive any financial aid for [her/his] education that year?

1 = YES

2 = NO

-1 = DK

-2 = RE

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# **SFDEPEND**

Since July 1, 1995, have you provided at least half of the financial support for any children or other individuals [other than your spouse]?

PLEASE INCLUDE CHILDREN AND ANY OTHER PEOPLE, [INCLUDING YOUR PARENTS, INCLUDING YOUR GUARDIANS, INCLUDING YOUR PARENT,] WHO WERE RECEIVING MORE THAN HALF OF THEIR SUPPORT FROM YOU. PLEASE DO NOT INCLUDE YOURSELF [OR YOUR SPOUSE].

1 = YES

2 = NO

-1 = DK

-2 = RE

If SFDEPEND=1 goto SFAGE1; else goto SFTOT95

# SFAGE1

How many of your dependents were (SINCE JULY 1, 1995)...

...under the age of 5

#### SFAGE2

...between 5 and 13

#### SFAGE3

...older than 13

If SFAGE3 gt 0, goto SFDEPPAR; else goto SFDAYCAR

# SFDEPPAR

Were you supporting your [parents/guardians/parent/parents or guardians] at that time?

1 = YES

2 = NO

-1 = DK

-2 = RE

# SFDAYCAR/SFELSEC/SFPOSTSC/SFDEPCAR

If SFAGE1 le 0 and SFAGE2 le 0 and SFAGE3 le 0, goto SFPRVTUI

How many of these dependents were in...

INTERVIEWER THE PROGRAM WILL NOT ACCEPT ENTRIES LARGER THAN THE NUMBER OF CHILDREN REPORTED EARLIER

...daycare or pre-school? NUMBER OF CHILDREN = [fill SFAGE1]

...a private elementary or secondary school?

NUMBER OF DEPENDENTS = [fill SFAGE2] +
[fill SFAGE3]

...postsecondary school? NUMBER OF DEPENDENTS = [fill SFAGE3]

...dependent care facility?

(INCLUDE PARENTS OR GUARDIANS)?

NUMBER OF DEPENDENTS = [fill SFAGE3]

# **SFPRVTUI**

If SFELSEC It 1, goto SFAMTCAR

How much did you pay in tuition between July 1, 1995 and June 30, 1996 for the private elementry and secondary education of your dependent children?

0-99999 =

-1 = DK

-2 = RE

# **SFAMTCAR**

If SFDAYCAR it 1 and SFDEPCAR it 1, goto SFTOT95

Between July 1, 1995 and June 30, 1996, how much were your average monthly expenses for daycare, babysitting, or elder care for parents?

(EXCLUDE COSTS RELATED TO SCHOOL ATTENDANCE)

0-5000 =

-1 = DK

-2 = RE

#### SFTOT95

My next few questions have to do with your income from various sources for 1995 and 1994.

INTERVIEWER:

ENTER 1 FOR THE 1994 AMOUNT, IF 1994 AMOUNT IS SAME AS 1995.
ENTER 2 FOR THE AMOUNT FROM JOBS, IF IT IS THE SAME AS THE TOTAL INCOME. ENTER 3 FOR THE SPOUSE'S INCOME, IF IT IS THE DIFFERENCE BETWEEN THE TOTAL INCOME AND RESPONDENT'S INCOME.

What was your [and your spouse's] total income from all sources, prior to taxes and deductions, excluding any (student) financial aid you may have received... (EXCLUDE WORK STUDY & ASSISTANTSHIPS) ...for 1995?

If SFTOT95 = -1 goto SF95EST

#### SFTOT94

If SZSTAGI le 0 ...for 1994?

If SFTOT94 = SFTOT95, SFTOT94E=1
If SFTOT94 = -1 goto SF94EST

# SFWAG95

How much of that was from your job... ...in 1995?

# SFWAG94

If SZSTAGI le 0 ...in 1994?

If SFWAG94=SFWAG95, SFRW94E=1

# SFSPWG95

If SCCURMAR=2

How much of that was from your spouse's job... ... in 1995?

If SFSPWG95 = -1 goto SF95ESTS

#### SFSPWG94

If SCMARR95 eq 2 and SZSTAGI le 0

...in 1994?

If SFSOWG94=SFSPWG95, SFSW94E=1 If SFSPWG94 =-1 goto SF94ESTS

#### SF95EST

Would you estimate that your 1995 employment income was more or less than \$30,000?

1 = LESS THAN \$30,000

2 = MORE THAN \$30,000

-1 = DK

-2 = RE

If SF95EST=1, goto SF95LT; if SF95EST=2, goto SF95GT

#### SF95LT

I'm going to read you some dollar ranges. Please tell me the range that best estimates your employment income for 1995...

1 = Less than 5,000

2 = 5 to 9 thousand (LESS THAN \$10,000)

3 = 10 to 19 thousand (LESS THAN \$20,000)

4 = 20 to 29 thousand (LESS THAN \$30,000)

-1 = DK

-2 = RE

# SF95GT

I'm going to read you some dollar ranges. Please tell me the range that best estimates your employment income for 1995...

1 = 30 to 39 thousand 2 = 40 to 49 thousand

(LESS THAN \$ 40,000)

2 = 40 to 49 thousand 3 = 50 to 59 thousand

(LESS THAN \$ 50,000) (LESS THAN \$ 60,000)

4 = 60 to 69 thousand

(LESS THAN \$ 70,000)

5 = 70 to 79 thousand 6 = 80 to 89 thousand

(LESS THAN \$ 80,000)

7 = 90 to 99 thousand

(LESS THAN \$ 90,000) (LESS THAN \$100,000)

8 = \$100,000 or more

-1 = DK

-2 = RE

# SF94EST

Would you estimate that your 1994 employment income was more or less than \$30,000?

1 = LESS THAN \$30,000

2 = MORE THAN \$30,000

-1 = DK

-2 = RE

If SF94EST = 1 goto SF94LT; if SF94EST=2, goto SF94GT

# SF94LT

I'm going to read you some dollar ranges. Please tell me the range that best estimates your employment income for 1994...

1 = Less than 5,000

2 = 5 to 9 thousand (LESS THAN \$10,000)

3 = 10 to 19 thousand (LESS THAN \$20,000)

4 = 20 to 29 thousand (LESS THAN \$30,000)

-1 = DK

-2 = RE

#### SF94GT

I'm going to read you some dollar ranges. Please tell me the range that best estimates your employment income for 1994...

1 = 30 to 39 thousand (LESS THAN \$ 40,000)

2 = 40 to 49 thousand (LESS THAN \$ 50,000)

3 = 50 to 59 thousand (LESS THAN \$ 60,000)

4 = 60 to 69 thousand (LESS THAN \$ 70,000)

5 = 70 to 79 thousand (LESS THAN \$ 80,000)

6 = 80 to 89 thousand (LESS THAN \$ 90,000)

7 = 90 to 99 thousand (LESS THAN \$100,000)

8 = \$100,000 or more

-1 = DK

-2 = RE

#### SF95ESTS

Would you estimate that your spouse's 1995 employment income was more or less than \$30,000?

1 = LESS THAN \$30,000

2 = MORE THAN \$30,000

-1 = DK

-2 = RE

If SF95ESTS = 1 goto SF95LTS; if SF95ESTS=2, goto SF95GTS



#### SF95LTS

I'm going to read you some dollar ranges. Please tell me the range that best estimates your spouse's employment income for 1995...

- l = Less than 5,000
- 2 = 5 to 9 thousand (LESS THAN \$10,000)
- 3 = 10 to 19 thousand (LESS THAN \$20,000)
- 4 = 20 to 29 thousand (LESS THAN \$30,000)
- -1 = DK
- -2 = RE

#### SF95GTS

I'm going to read you some dollar ranges. Please tell me the range that best estimates your spouse's employment income for 1995...

- l = 30 to 39 thousand
- (LESS THAN \$ 40,000)
- 2 = 40 to 49 thousand
- (LESS THAN \$ 50,000)
- 3 = 50 to 59 thousand 4 = 60 to 69 thousand
- (LESS THAN \$ 60,000) (LESS THAN \$ 70,000)
- 5 = 70 to 79 thousand
- (LESS THAN \$ 80,000)
- 6 = 80 to 89 thousand

- (LESS THAN \$ 90,000)
- 7 = 90 to 99 thousand
- (LESS THAN \$100,000)
- 8 = \$100,000 or more
- -1 = DK
- -2 = RE

# SF94ESTS

Would you estimate that your spouse's 1994 employment income was more or less than \$30,000?

- 1 = LESS THAN \$30,000
- 2 = MORE THAN \$30,000
- -1 = DK
- -2 = RE

If SF94ESTS=1 goto SF94LTS If SF94ESTS=2 goto SF94GTS

# SF94LTS

I'm going to read you some dollar ranges. Please tell me the range that best estimates your spouse's employment income for 1994...

- l = Less than 5.000
- 2 = 5 to 9 thousand (LESS THAN \$10,000)
- 3 = 10 to 19 thousand (LESS THAN \$20,000)
- 4 = 20 to 29 thousand (LESS THAN \$30,000)
- -1 = DK
- -2 = RE

# SF94GTS

I'm going to read you some dollar ranges. Please tell me the range that best estimates your spouse's employment income for 1994...

- l = 30 to 39 thousand(LESS THAN \$ 40,000)
- 2 = 40 to 49 thousand (LESS THAN \$ 50,000)
- 3 = 50 to 59 thousand (LESS THAN \$ 60,000)
- 4 = 60 to 69 thousand (LESS THAN \$ 70,000)
- 5 = 70 to 79 thousand (LESS THAN \$ 80,000)
- 6 = 80 to 89 thousand (LESS THAN \$ 90,000)
- 7 = 90 to 99 thousand (LESS THAN \$100,000)
- 8 = \$100,000 or more
- -1 = DK-2 = RE

# **SFUNTBEN**

Did you [and your spouse] receive any untaxed income or benefits in 1995 such as Social Security,

[AFDC, child support,] Worker's comp, welfare or disability] (1=YES 2=NO)?

If SFUNTBEN=1, goto SFSS95; else goto SFFOOD

# SFSS95

Which ones did you receive (1=YES 2=NO):

SOCIAL SECURITY BENEFITS?

# SFAFDC95

If SFDEPEND eq 1

AID TO FAMILIES WITH DEPENDENT CHILDREN?

# SFCHSP95

If SFDEPEND eq 1

CHILD SUPPORT

# SFCOMP95

WORKER'S COMPENSATION?

# SFDIS95

**DISABILITY PAYMENTS?** 

# SFWELF95

WELFARE PAYMENTS?

#### **SFFOOD**

At any time since January 1994, have you [or your parents] received food stamps?

NOTE: STUDENTS AND/OR PARENTS MAY HAVE BEEN UNEMPLOYED FOR SOME TIME SINCE JANUARY, 1994 EVEN THOUGH THEY MAY HAVE HAD HIGH INCOME.

0= NO

1= YES, RESPONDENT ONLY [2= YES, PARENTS/GUARDIANS ONLY 3= YES, BOTH RESPONDENT AND PARENTS]

#### **SFCASH**

Next I would like to ask you about your assets [and those of your parents].

Currently, what is the total worth of your [and your spouse's] cash, savings, and checking accounts?

0-950000

-1 = DK

-2 = RE

If SfCASH=-1, goto SFCASHE Else goto SFPARHM

#### **SFCASHE**

Is it over \$1,000 (1=YES 2=NO)?

# **SFPARHM**

If DPNDSTAT eq 2, goto SFHOME If CWHPAR eq 4, goto SFHOME

Does/Do your [parents/parent/guardian] own ...

INTERVIEWER: 1=YES 2=NO -1=DK -2=RE

... a home or pay a mortgage on a home?

#### **SFPARBS**

... a business?

# **SFPARFM**

... a farm?

# **SFPARRE**

... any other real estate?

Goto F\_END

#### **SFHOME**

Do you [or your spouse] either own your home or pay a mortgage on your home (1=YES 2=NO)?

If SFHOME=1, goto SFHMVAL; else goto SFBSFMRE

#### **SFHMVAL**

Currently, what is the total worth of your [and your spouse's] home (0-950,000)?

If SFHMVAL = -1, goto SFHMVALE Else goto SFHMOWE

# **SFHMVALE**

Is it over \$100,000 (1=YES 2=NO)?

# **SFHMOWE**

How much do you owe on your house (0-950,000)?

If SFHMOWE=-1, goto SFHMOWEE Else gotoSFBSFMRE

# **SFHMOWEE**

Is it over \$50,000 (1=YES 2=NO)?

#### **SFBSFMRE**

If DPNDSTAT=1 goto F\_END

Do you [or your spouse] own a business, farm, or any other real estate?

1 = YES

2 = NO

-1 = DK

-2 = RE

If SFBSFMRE=1 goto SFBUSINS; else goto F\_END



# **SFBUSINS**

Do you [or your spouse] own a business (1=YES 2=NO)?

If SFBUSINS=1 goto SFBUSVAL; else goto SFFARM

# **SFBUSVAL**

Currently, what is the total worth of your [and your spouse's] business (0-950,000)?

If SFBUSVAL lt 0, goto SFBSVALE; else goto SFBSOWE

#### **SFBUSVALE**

Is it over \$10,000 (1=YES 2=NO)?

# **SFBSOWE**

How much do you currently owe on your business (0-950,000)?

If SFBSOWE eq -1, goto SFBSOWEE; if eq -2, goto SFFARM;

# **SFBSOWEE**

Is it over \$10,000 (1=YES 2=NO)?

# **SFFARM**

Do you [or your spouse] own a farm (1=YES 2=NO)?

If SFFARM=1 goto SFFMVAL; else goto SFOWNRLE

# **SFFMVAL**

Currently, what is the total worth of your [and your spouse's] farm (0-950,000)?

If SFFMVAL=-1, goto SFFMVALE Else goto SFFMOWE

### **SFFMVALE**

Is it over \$10,000 (1=YES 2=NO)?

# **SFFMOWE**

How much do you currently owe on your farm (0-950,000)?

If SFFMOWE=-1 goto SFREOWEE If SFFMOWE=-2, goto SFOWNRLE

# **SFREOWEE**

Is it over 10,000 (1=YES 2=NO)?

Goto SFOWNRLE

# **SFOWNRLE**

Do you [or your spouse] own any other real estate (1=YES 2=NO)?

If SFOWNRLE=1 goto SFRLEVAL; else goto F\_END

#### SFRLEVAL

Currently, what is the total worth of your [and your spouse's] other real estate (0-950,000)?

If SFRLEVAL=-1, goto SFRLEEST Else goto SFRLEOWE

# **SFRLEEST**

Is it over \$10,000 (1=YES 2=NO)?

# **SFRLEOWE**

How much do you currently owe on this real estate (0-950,000)?

If SFRLEOWE=-1, goto SFRLEEOW If SFRLEOWE=-2 goto F\_END

# **SFRLEEOW**

Is it over \$10,000 (1=YES 2=NO)?

# F\_END

# STUDENT CATI Section G

ERIC N

Next, I'd like to ask you a few questions about your background.

# **SGSEX**

INTERVIEWER: ASK ONLY IF RESPONDENT'S GENDER IS NOT OBVIOUS OR HAS NOT BEEN REVEALED DURING THE INTERVIEW.

Are you...

- 1 = Male or
- 2 = Female?
- -1 = DK
- -2 = RE

# **SGHISP**

If SZHISP=2, store 0 in SGHISP and goto SGRACE

Are you of Hispanic origin (if yes, of which descent)?

- 0 = NO
- 1 = Mexican, Mexican-American, or Chicano descent?
- 2 = Cuban descent?
- 3 = Puerto Rican descent?
- 4 = some other Hispanic origin?
- -1 = DK
- -2 = RE

# **SGRACE**

If SZRACE ge 1 and le 2, store SZRACE in SGRACE and goto SGLANG

What is your race?

# **READ LIST AS A PROMPT**

- 1 = WHITE
- 2 = AFRICAN AMERICAN OR BLACK
- 3 = AMERICAN INDIAN OR ALASKAN NATIVE
- 4 = ASIAN OR PACIFIC ISLANDER
- 5 = OTHER
- -1 = DK
- -2 = RE

If SGRACE=3 goto SGTRIBE

If SGRACE=4 goto SGASIAN

If SGRACE=5 goto SGRACESP

Else goto SGLANG

# **SGRACESP**

SPECIFY OTHER RACE.

# **SGTRIBE**

Are you enrolled in a state- or federally-recognized tribe?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

# Goto SGLANG

# **SGASIAN**

Are you...

- 1 = Chinese
- 2 = Korean
- 3 = Filipino
- 4 = Japanese
- 5 = Vietnamese
- 6 = Asian Indian
- 7 = Thai
- 8 = Hawaiian
- 9 = Samoan
- 10 = Guamanian
- 11 = Other Asian or Pacific Islander?

# **SGLANG**

What language was spoken most often in your home as you were growing up?

- 1 = ENGLISH
- 2 = SPANISH
- 3 = ARABIC
- 4 = BAHASA
- 5 = CHINESE (MANDARIN)
- 6 = FARCEY (PHARSI)
- 7 = FRENCH AND CANADIAN FRENCH
- 8 = GAELIC
- 9 = GERMAN
- 10 = HEBREW
- 11 = HINDI
- 12 = JAPANESE
- 13 = KOREAN
- 14 = MALAYSIAN (BAHASA MALAY)
- 15 = PAKISTANI (PUNJABI)
- 16 = TGALOG
- 17 = THAI
- 18 = VIETNAMESE
- 19 = WELSH
- 20 = AMERICAN SIGN LANGUAGE OR OTHER SIGN LANGUAGE
- 21 = OTHER



#### **SGSTATE**

If SZLGST ne <>, store SZLGST in SGSTATE and goto SGDISAB1

What is your state of legal residence?

AL=Alabama NM=New Mexico AK=Alaska NY=New York AS=American Samoa NC=North Carolina AZ=Arizona ND=North Dakota AR=Arkansas OH=Ohio CA=California OK=Oklahoma CO=Colorado OR=Oregon CT=Connecticut PA=Pennsylvania DE=Delaware PR=Puerto Rico DC=District of Columbia RI=Rhode Island FL=Florida SC=South Carolina GA=Georgia SD=South Dakota GU=Guam TN=Tennessee HI=Hawaii TX=Texas ID=Idaho UT=Utah IL=Illinois VT=Vermont IN=Indiana VI=Virgin Islands IA=Iowa VA=Virginia KS=Kansas WA=Washington KY=Kentucky WV=West Virginia LA=Louisiana WI=Wisconsin ME=Maine WY=Wyoming MD=Maryland AA, AE, AP=Military MA=Massachusetts CN=Canada MI=Michigan FM=Fed States of MN=Minnesota Micronesia MS=Mississippi MH=Marshall Islands MO=Missouri MX=Mexico MT=Montana MP=Northern NE=Nebraska Mariana Islands NV=Nevada PW=Palau Island NH=New Hampshire FC=Foreign Country NJ=New Jersey -1=DK -2= RE NA=Not Available

If SGSTATE ne CN goto SGDISAB1

# **SGCANADA**

SPECIFY CANADIAN PROVINCE

AB= Alberta

BC= British Columbia

MB= Manitoba

NB= New Brunswick

NF= Newfoundland

NS= Nova Scotia

ON= Ontario

PE= Prince Edward Island

PQ= Quebec

SK= Saskatchewan

NT= Northwst Territories

YT= Yukon Territory

-1= Don't Know

-2= Refused

# SGDISAB1/2/3/4/5/6

Do you have any disabilities, such as a hearing, speech, or mobility impairment, a learning disability, or vision problems that can't be corrected with glasses?

# IF YES PROBE FOR ALL THAT APPLY READ LIST AS NEEDED ENTER 0 FOR NONE/NO MORE

- 1 = A HEARING IMPAIRMENT
- 2 = A SPEECH DISABILITY OR LIMITATION
- 3 = AN ORTHOPEDIC OR MOBILITY LIMITATION
- 4 = A SPECIFIC LEARNING DISABILITY?
- 5 = LEGALLY BLIND OR HAVE A VISION IMPAIRMENT THAT CANNOT BE CORRECTED WITH EYEGLASSES
- 6 = OTHER DISABILITY OR LIMITATION

# **SGDISABL**

If SGDISAB1 it 1, SGDISABL=2; goto SGVOTE; else SGDISABL=1 and goto SGHEAR

#### **SGHEAR**

If SGDISAB1--6=1; else goto SGSPEECH Are you able to hear what is said in a normal conversation with another person, when using a hearing aid if you usually use one?

- 1= YES, USING A HEARING AID
- 2= YES, WITHOUT A HEARING AID
- 3= NO
- -1 = DK
- -2 = RE

#### **SGSPEECH**

If SGDISABL1--6 =2; else goto SGORTHO1

When having a conversation with another person, does the other person usually understand your speech?

1 = YES

2 = NO

-1 = DK

-2 = RE

# **SGORTHO1**

If SGDISAB1--6=3; else goto SGVISION

Are you able to walk for a quarter mile or so without an assistive device or help of another person?

INTERVIEWER: PROBE FOR THE KIND OF DEVICE IF THE ANSWER IS NO.

1=YES

2= NO, USE A WHEELCHAIR

3= NO, USE A WALKER

4= NO. USE SOME OTHER DEVICE

# **SGORTHO2**

If SGORTHO1 gt <> and le 1

Are you able to walk up a flight of stairs without resting (1=YES 2=NO)?

#### **SGORTHO3**

If SGORTHO1 gt <> and le 1

Are you able to lift and carry something as heavy as 10 pounds, such as a full bag of groceries (1=YES 2=NO)?

# **SGORTHO4**

If SGORTHO1 gt <>

At [fill school], how difficult has it been for you to get in and out of buildings?

1=VERY DIFFICULT 2=SOMEWHAT DIFFICULT 3=NOT AT ALL DIFFICULT

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# **SGVISION**

Are you able to see words and letters in ordinary newspaper print when wearing glasses or contact lenses, if you usually wear them?

I = YES

2 = NO

-1 = DK

-2 = RE

#### SCVOTE

If SCUS\_CIT ne 1, goto SGCOMSRV

Now I'd like to ask you about voting in recent elections...

INTERVIEWER: 1=YES 2=NO

Are you registered to vote in US elections?

# **SGVOTEVR**

Have you ever voted in any national, state, or local election?

If SAAGE le 20, goto SGVOTE96

#### SGVOTE92

Did you vote in the 1992 presidential election?

# SGVOTE96

[Are you planning to/Did you] vote in the 1996 presidential election?

# **SGPOLMTG**

INTERVIEWER: ENTER 1=YES 2=NO

In the last two years, did you...

...Go to any political meetings, rallies, or dinners, (or things like that)? DON'T COUNT CAMPUS ELECTIONS

# SGPOLLTR

...Write letters to any public official to express your opinion?





#### **SGCOMSRV**

Did you do any community service or volunteer work during the past year, OTHER THAN COURT-ORDERED SERVICE?

1 = YES

2 = NO

-1 = DK

-2 = RE

If SGCOMSRVne1, goto G\_END

# SGCOM1/2/3/4/5/6

What did you do? (What was the community service/work?) CODE ALL THAT APPLY

1 = WORKED WITH KIDS--PRIMARILY AS COACH OR ASSISTANT COACH/ SCOUTING, (E.G., TEAM OR INDIVIDUAL SPORTS/BIG BROTHERS/BIG SISTERS) 2 = WORKED WITH KIDS--AS TUTOR/MENTOR, HOMEWORK HOTLINE (E.G., PTA, TUTORING, VOLUNTEER IN CLASSROOM) 3 = HELPED RAISE MONEY FOR A SPECIFIC PURPOSE (OTHER THAN POLITICAL) (E.G., GROUPS LIKE UNITED WAY, CANCER SOCIETY, SADD, MADD) 4 = HELPED RAISE MONEY OR VOLUNTEERED FOR A POLITICAL CAMPAIGN (E.G., LOCAL STATE OR NATIONAL **ELECTIONS/ CAMPUS ELECTIONS)** 5 = WORKED AT SHELTER FOR HOMELESS/ SOUP KITCHEN 6 = TELEPHONE CRISIS CENTER (SUCH AS RAPE/DRUG ABUSE)

7 = NEIGHBORHOOD IMPROVEMENT/

8 = VOLUNTEERED AT HOSPITAL, NURSING

9 = LITERACY PROJECT--PRIMARILY WITH ADULTS (E.G. HELPING ADULTS LEARN

0 = EXIT THIS SCREEN

10= OTHER

TO OR IMPROVE READING)

CLEANUP PROJECT(S)

HOME, GROUP HOME

#### **SGCOMHRS**

How much time did you volunteer?

NOTE: WE'D LIKE TO GET SOME IDEA ABOUT HOW MUCH TIME IS SPENT VOLUNTEERING AND WHETHER IT'S ON A REGULAR BASIS OR ONLY ONCE OR TWICE A YEAR.
IF STUDENT INDICATES THEY VOLUNTEER ONLY ONCE OR TWICE A YEAR, ASK STUDENT TO PROVIDE TOTAL NUMBER OF HOURS PER YEAR

# SGCOMFR1

SPECIFY FREQUENCY OF HOURS:

1 = DAY

2= WEEK

3= MONTH

4= YEAR

# SGCOMFR2

How many [days/weeks/months] during the year?

# **SGCOMRQ**

If CTSTTYPE gt 1, goto G\_END

Was this volunteer work required for graduation (1=YES 2=NO)? (COMMUNITY SERVICE OR VOLUNTEER WORK)

# **G\_END**

# STUDENT CATI Section H



# SHAGEDAD/SHAGEMOM

My next few questions are about your [father/male guardian] [and mother/female guardian].

[THIS IS A NON-BPS CASE. WE ARE ALMOST AT THE END OF THE INTERVIEW.]

If SAAGE gt 25 goto SHDADED

How old is your [father/male guardian]?

30-110 =

-1 = DK

-2 = RE

# **SHAGEMOM**

How old is your [mother/female guardian]?

30-110 =

-1 = DK

-2 = RE

#### **SHDADED**

What was the highest grade or level of education your father ever completed?

1= DID NOT COMPLETE HIGH SCHOOL

2= COMPLETED HIGH SCHOOL OR

**EQUIVALENT** 

POSTSECONDARY VOCATIONAL:

3= LESS THAN 1 YR OF OCCUPATIONAL/

TRADE/TECHNICAL OR BUSINESS

**SCHOOL** 

4= ONE BUT LESS THAN 2 YEARS OF OCCUPATIONAL/TRADE/TECHNICAL/

**BUSINESS SCHOOL** 

5= 2 YEARS OR MORE OF OCCUPATIONAL/

TRADE/BUSINESS SCHOOL

**POSTSECONDARY ACADEMIC:** 

6= LESS THAN 2 YEARS OF COLLEGE

7= 2 OR MORE YEARS OF COLLEGE,

**INCLUDING 2-YR DEGREE** 

8= BACHELOR'S DEGREE - 4 OR 5 YEAR

DEGREE

9= MASTER'S DEGREE OR EQUIVALENT

10= MD/DDS/LLB/OTHER ADVANCED

PROFESSIONAL DEGREE

11= DOCTORATE DEGREE - PHD, EDD, DBA

-1 DK -2 RE

#### **SHDADAS**

# If SHDADED eq 7

Did he earn an associate's degree?

1 = YES

2 = NO

-1 = DK

-2 = RE

#### SHMOMED

What was the highest grade or level of education your mother ever completed?

1= DID NOT COMPLETE HIGH SCHOOL

2= COMPLETED HIGH SCHOOL OR

**EQUIVALENT** 

**POSTSECONDARY VOCATIONAL:** 

3= LESS THAN 1 YR OF OCCUPATIONAL/

TRADE/TECHNICAL OR BUSINESS

#### SCHOOL

4= ONE BUT LESS THAN 2 YEARS OF OCCUPATIONAL/TRADE/TECHNICAL/

**BUSINESS SCHOOL** 

5= 2 YEARS OR MORE OF OCCUPATIONAL/

TRADE/BUSINESS SCHOOL

**POSTSECONDARY ACADEMIC:** 

6= LESS THAN 2 YEARS OF COLLEGE

7= 2 OR MORE YEARS OF COLLEGE,

**INCLUDING 2-YR DEGREE** 

8= BACHELOR'S DEGREE - 4 OR 5 YEAR

**DEGREE** 

9= MASTER'S DEGREE OR EQUIVALENT

10=MD/DDS/LLB/OTHER ADVANCED

PROFESSIONAL DEGREE

11= DOCTORATE DEGREE - PHD, EDD, DBA

-1 DK -2 RE

#### **SHMOMAS**

#### If SHMOMED=7

Did she earn an associate's degree?

1 = YES

2 = NO

-1 = DK

-2 = RE



# **SHOTPSE**

How many of your other family members ever attended a postsecondary school?

INTERVIEWER: WE'RE INTERESTED IN BROTHERS AND SISTERS, NOT EXTENDED FAMILY.

0-20= MEMBERS

# **SHSTRES**

If DPNDSTAT eq 2 goto SHDADOCC

What is your [parents'/guardians'/father's/male guardian's] state of legal residence?

AL=Alabama	NM=New Mexico
AK=Alaska	NY=New York
AS=American Samoa	NC=North Carolina
AZ=Arizona	ND=North Dakota
AR=Arkansas	OH=Ohio
CA=California	OK=Oklahoma
CO=Colorado	OR=Oregon
CT=Connecticut	PA=Pennsylvania
DE=Delaware	PR=Puerto Rico
DC=District of Columbia	RI=Rhode Island
FL=Florida	SC=South Carolina
GA=Georgia	SD=South Dakota
GU=Guam	TN=Tennessee
HI=Hawaii	TX=Texas
ID=Idaho	UT=Utah
IL=Illinois	VT=Vermont
IN=Indiana	VI=Virgin Islands
IA=Iowa	VA=Virginia
KS=Kansas	WA=Washington
KY=Kentucky	WV=West Virginia
LA=Louisiana	WI=Wisconsin
ME=Maine	WY=Wyoming
MD=Maryland	AA,AE,AP=Military
MA=Massachusetts	CN=Canada
MI=Michigan	FM=Fed States of
MN=Minnesota	Micronesia
MS=Mississippi	MH=Marshall Islands
MO=Missouri	MX=Mexico
MT=Montana	MP=Northern
NE=Nebraska	Mariana Islands
NV=Nevada	PW=Palau Island
NH=New Hampshire	FC=Foreign Country
NJ=New Jersey	-1=DK -2= RE

If SHSTRESne CN, goto SHPARST2

NA=Not Available

# SHPARPR1

SPECIFY CANADIAN PROVINCE

AB= Alberta

BC= British Columbia

MB= Manitoba

NB= New Brunswick

NF= Newfoundland

NS= Nova Scotia

ON= Ontario

PE= Prince Edward Island

PQ= Quebec

SK= Saskatchewan

NT= Northwst Territories

YT= Yukon Territory

-1= Don't Know

-2= Refused

# SHPARST2

What is your [mother's/female guardian's] state of legal residence?

gai residence?	
AL=Alabama	NM=New Mexico
AK=Alaska	NY=New York
AS=American Samoa	NC=North Carolina
AZ=Arizona	ND=North Dakota
AR=Arkansas	OH=Ohio
CA=California	OK=Oklahoma
CO=Colorado	OR=Oregon
CT=Connecticut	PA=Pennsylvania
DE=Delaware	PR=Puerto Rico
DC=District of Columbia	RI=Rhode Island
FL=Florida	SC=South Carolina
GA=Georgia	SD=South Dakota
GU=Guam	TN=Tennessee
HI=Hawaii	TX=Texas
ID=Idaho	UT=Utah
IL=Illinois	VT=Vermont
IN=Indiana	VI=Virgin Islands
IA=Iowa	VA=Virginia
KS=Kansas	WA=Washington
KY=Kentucky	WV=West Virginia
LA=Louisiana	WI=Wisconsin
ME=Maine	WY=Wyoming
MD=Maryland	AA,AE,AP=Military
MA=Massachusetts	CN=Canada
MI=Michigan	FM=Fed States of
MN=Minnesota	Micronesia
MS=Mississippi	MH=Marshall Islands
MO=Missouri	MX=Mexico
MT=Montana	MP=Northern
NE=Nebraska	Mariana Islands
NV=Nevada	PW=Palau Island
NH=New Hampshire	FC=Foreign Country
NJ=New Jersey	-1=DK -2= RE
NA=Not Available	

If SHPARST2 ne CN, then goto SHDADOCC.

#### SHPARPR2

SPECIFY CANADIAN PROVINCE

AB= Alberta

BC= British Columbia

MB= Manitoba

NB= New Brunswick

NF= Newfoundland

NS= Nova Scotia

ON= Ontario

PE= Prince Edward Island

PQ= Quebec

SK= Saskatchewan

NT= Northwst Territories

YT= Yukon Territory

-1= Don't Know

-2= Refused

#### SHDADOCC

What is your [father's/male guardian's] job? ENTER OCCUPATION FOR PRINCIPAL JOB.

1 = ENTER OCCUPATION IN THE USEREXIT

2 = SKIP OVER THE USEREXIT

3 = RETIRED

4 = NOT EMPLOYED (INCLUDING DISABLED

OR HOMEMAKER)

-1 = DK -2 = RE

# SHMOMOCC

What is your [mother's/female guardian's] job? ENTER OCCUPATION FOR PRINCIPAL JOB.

1 = ENTER OCCUPATION IN THE USEREXIT

2 = SKIP OVER THE USEREXIT

3 = RETIRED

4 = NOT EMPLOYED (INCLUDING DISABLED

OR HOMEMAKER)

-1 = DK -2 = RE

# SHINC95

If SAAGE gt 25 goto SHSIZE

What is your estimate of your [parents'/guardians'/ father's/male guardian's total yearly income, for 1995?

0-3,000,000

-1 = DK

-2 = RE

If SHINC95 ne -1, goto SHINC94

# SHINC95E

Would you estimate that [their/his]1995 total income was more or less than \$30,000?

1 = LESS THAN \$30,000

2 = MORE THAN \$30,000

-1 = DK

-2 = RE

If SHINC95E=1, goto SHINC95L If SHINC95E=2, goto SHINC95M Else goto SHINC94

#### SHINC95L

I'm going to read you some dollar ranges. Please tell me the range that best estimates your [parents'/ guardians'/father's/male guardian's] income for 1995...

1 = Less than 5,000

(LESS THAN \$10,000) 2 = 5 to 9 thousand

3 = 10 to 19 thousand (LESS THAN \$20,000)

4 = 20 to 29 thousand (LESS THAN \$30,000)

-1 = DK

-2 = RE

# SHINC95M

1 = 30 to 39 thousand (LESS THAN \$40,000)

2 = 40 to 49 thousand (LESS THAN \$50,000)

3 = 50 to 59 thousand (LESS THAN \$60,000)

4 = 60 to 69 thousand (LESS THAN \$70,000)

5 = 70 to 79 thousand (LESS THAN \$ 80,000)

6 = 80 to 89 thousand (LESS THAN \$ 90,000)

7 = 90 to 99 thousand (LESS THAN \$100,000)

8 = \$100,000 or more

-1 = DK

-2 = RE

#### SHINC94

If SAAGE gt 25, goto SHSIZE If SZPAAGI gt 0, goto SHINC295

What would you estimate it was for 1994?

**ENTER 1 IF SAME AS 1995** 

0-3.000.000 =

-1 = DK

-2 = RE

If SHINC94 ne -1, goto SHINC295







# SHINC94E

Would you estimate that [their/his]1994 total income was more or less than \$30,000?

- 1 = LESS THAN \$30.000
- 2 = MORE THAN \$30,000
- -1 = DK
- -2 = RE

If SHINC94E=2 goto SHIN94M

## SHIN94L

I'm going to read you some dollar ranges. Please tell me the range that best estimates your [parents'/ guardians'/father's/male guardian's] income for 1994...

- 1 = Less than 5,000
- 2 = 5 to 9 thousand
- (LESS THAN \$10,000)
- 3 = 10 to 19 thousand (LESS THAN \$20,000)
- 4 = 20 to 29 thousand (LESS THAN \$30,000)
- -1 = DK
- -2 = RE

# SHIN94M

- 1 = 30 to 39 thousand (LESS THAN \$ 40,000)
- 2 = 40 to 49 thousand (LESS THAN \$ 50,000)
- 3 = 50 to 59 thousand (LESS THAN \$ 60,000)
- 4 = 60 to 69 thousand (LESS THAN \$ 70,000)
- 5 = 70 to 79 thousand (LESS THAN \$ 80,000)
- 6 = 80 to 89 thousand (LESS THAN \$ 90,000)
- 7 = 90 to 99 thousand (LESS THAN \$100,000)
- 8 = \$100,000 or more
- -1 = DK
- -2 = RE

### SHINC295

If SAAGE gt 25, goto SHSIZE

What is your estimate of your [mother's/female guardian's] total yearly income, for 1995?

- 0-3.000.000 =
- -1 = DK
- -2 = RE

If SHINC295 ne -1, goto SHINC294

# SHRNG295

Would you estimate that her 1995 total income was more or less than \$30,000?

- 1 = LESS THAN \$30,000
- 2 = MORE THAN \$30,000
- -1 = DK
- -2 = RE

If SHRNG295=1, goto SHIN2L95 If SHRNG295=2, goto SHIN2M95 Else goto SHINC294

#### SHIN2L95

I'm going to read you some dollar ranges. Please tell me the range that best estimates your [mother's/female guardian's] income for 1995...

- 1 = Less than 5,000
- 2 = 5 to 9 thousand (LESS THAN \$10,000)
- 3 = 10 to 19 thousand (LESS THAN \$20,000)
- 4 = 20 to 29 thousand (LESS THAN \$30,000)
- -1 = DK
- -2 = RE

# SHIN2M95

- 1 = 30 to 39 thousand (LESS THAN \$ 40,000)
- 2 = 40 to 49 thousand (LESS THAN \$ 50,000)
- 3 = 50 to 59 thousand (LESS THAN \$ 60,000)
- 4 = 60 to 69 thousand (LESS THAN \$ 70,000)
- 5 = 70 to 79 thousand (LESS THAN \$ 80,000)
- 6 = 80 to 89 thousand (LESS THAN \$ 90,000) 7 = 90 to 99 thousand (LESS THAN \$100,000)
- 8 = \$100,000 or more-1 = DK
- -2 = RE

# SHINC294

If SAAGE gt 25, goto SHSIZE If SZPAAGI gt 0 goto SHSIZE

> What would you estimate it was for 1994? ENTER 1 IF THE SAME AS 1995

- 0-999999 =
- -1 = DK
- -2 = RE

If SHINC294 ne -1, goto SHSIZE

D-60

# SHRNG294

Would you estimate that her 1994 total income was more or less than \$30,000?

1 = LESS THAN \$30,000

2 = MORE THAN \$30,000

-1 = DK

-2 = RE

If SHRNG294 = 1 goto SHIN2L94 If SHRNG294=2 goto SHIN2M94 Else goto SHSIZE

# SHIN2L94

I'm going to read you some dollar ranges. Please tell me the range that best estimates your [mother's/female guardian's] income for 1994...

1 = Less than 5,000

2 = 5 to 9 thousand (LESS THAN \$10,000)

3 = 10 to 19 thousand (LESS THAN \$20,000)

4 = 20 to 29 thousand (LESS THAN \$30,000)

-1 = DK

-2 = RE

# SHIN2M94

1 = 30 to 39 thousand (LESS THAN \$ 40,000) 2 = 40 to 49 thousand (LESS THAN \$ 50,000)

2 = 40 to 49 thousand (LESS THAN \$ 50,000)

3 = 50 to 59 thousand (LESS THAN \$ 60,000)

4 = 60 to 69 thousand (LESS THAN \$ 70,000)

5 = 70 to 79 thousand (LESS THAN \$ 80,000)

6 = 80 to 89 thousand (LESS THAN \$ 90,000)

7 = 90 to 99 thousand (LESS THAN \$100,000)

8 = \$100,000 or more

-1 = DK

-2 = RE

#### SHSIZE

If SAAGE gt 25, goto SHWRKEXP

How many people did your [parents'/guardians'/ father's/ male guardian's] household support between July 1, 1995 and June 30, 1996?

Please include anyone who received at least half of their support from your [parents/guardians/father/male guardian].

[(Include yourself, your [father/male guardian], and your [mother/female guardian], if applicable.) / (Include yourself and your [father/male guardian].)]
(0-20)

If SHSIZE gt 0, goto SHPSENPS Else goto SHHHSIZ2

#### SHPSENPS

Of the [fill SHSIZE] people your [[parents/guardians] were / [father/male guardian] was] supporting during that time, how many were in a postsecondary school at least half-time (0-20)?

# SHHHSIZ2

How many people did your [mother's/female guardian's] household support between July 1, 1995 and June 30. 1996?

Please include anyone who received at least half of their support from your [mother/female guardian], and include yourself, [your [mother/female guardian], and your [father/male guardian], if applicable. / and your [mother/female guardian], if applicable.]

0-20

-1 = DK -2 = RE

If SHHHSIZ2 le 0, goto SHWRKEXP

#### SHHHPSE2

Of the [fill SHHHSIZ2] people your [mother/female guardian] was supporting during that time, how many were in a postsecondary school at least half-time?

0-20

-1 = DK

-2 = RE

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D-61

# **SHWRKEXP**

If DPNDSTAT eq 2 goto SHEFFECT

Did your [[father/male guardian] and [mother/female guardian] / [father/male guardian] / [mother/female guardian]] expect you to have a job for pay during the 1995-96 school year?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

If SHWRKEXP ne 1 goto SHEFFECT

# **SHHRSEXP**

How many hours did [they/he/she] expect you to work in an average week?

- 1-100
- -1 = DK -2 = RE

# **SHEFFECT**

If DPNDSTAT eq 2 goto H\_END If SHHRSEXP It 1 goto H\_END

You told me earlier that, on average, you worked about [fill SHHRSEXP] hours per week while you were also attending classes. Do you think the amount of time you were working had a positive effect, a negative effect, or no effect on your grades?

- 1 = POSITIVE EFFECT
- 2 = NEGATIVE EFFECT
- 3 = NO EFFECT
- -1 = DK
- -2 = RE

H\_END

# STUDENT CATI Section I

If BPSELIG ne 1 and if CTSTTYPE eq 1 and if a\_fstlvl le 2, goto SIREMED Else if BPSELIG ne 1 goto I\_END.

#### SINUMAPP

Next I have a few questions about your experiences at [NPSAS school].

Thinking back to when you applied to [NPSAS school]...

How many schools did you apply to (0-99). (INCLUDING [NPSAS school])?

#### SINUMACC

How many of those schools accepted you (0-99)?

#### **SIFIRST**

Was [NPSAS school] your first choice for postsecondary school (1=YES 2=NO)?

# **SIMILES**

How far (in miles) is [NPSAS school] from your permanent home (1-12450 MILES)?

# **SITALK**

# Random number start=SIRAND2

I am now going to read you a list of school-related activities that you may have participated in during the 1995-96 school year, while you attended [fill name of NPSAS school].

Please tell me how often you participated in the activity.

# INTERVIEWER: ENTER 0=NEVER, 1=SOMETIMES, AND 2=OFTEN

Talk with faculty about academic matters outside of class time?

# **SIMEET**

Meet with advisor concerning academic plans

#### SISOCIAL

Have informal or social contacts with advisor or other faculty members outside of classrooms and offices

# SISTUDGP

Attend study groups outside of the classroom?

#### **SIFRIEND**

Go places with friends from school? (EG CONCERTS, MOVIES, RESTAURANTS, SPORTING EVENTS)

#### **SICLUBS**

Participate in school clubs?
(EG STUDENT GOVERNMENT, RELIGIOUS CLUBS, SERVICE ACTIVITIES)

## **SILECTUR**

During 95-96, how often did you...

...attend academic or career-related lectures, conventions, or field trips?

# **SIARTS**

#### If LEVEL It 3

...attend music, choir, drama, or other fine arts activities?

### SIINTRAM

# If LEVEL lt 3

...participate in intramural or nonvarsity sports?

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# **SIVARSTY**

# If LEVEL It 3

... participate in varsity or intercollegiate sports?

#### SITEACH

Please tell me if you were satisfied with the following at [fill name of NPSAS school].

The teaching ability of most of the instructors?

# **SISOCLIF**

Your social life?

# SUNTELL

Your intellectual growth?

# SICOST

The financial cost of attending?

# **SIPRSTG**

The prestige of the school?

# **SICLIMT**

Overall campus climate regarding students of different racial or ethnic backgrounds?

#### **SICLSIZE**

Class sizes?

# **SICOURS**

The availability of courses?

#### **SIREMED**

# If SAFSTLEV gt 2, goto SICNSL

0= DID NOT USE; 1= ONCE; 2=SOMETIMES; 3=OFTEN/A LOT; 4=SERVICE UNAVAILABLE

During 95-96, did you take remedial or developmental courses (0=NO 1=YES)?..

(Note: format of the response options accommodates values of 1--3, all indicating "Yes.")

If SIREMED ne 1--3 goto SICNSL

#### **SIREMEDS**

Were you satisfied with the services (1=YES 2=NO)?

# SICNSL

During 95-96, how often did you...

...use counseling services, FOR ACADEMIC/FINANCIAL AID, OR PERSONAL ISSUES?

If SICNSL ne 1--3 goto SIJOB

#### SICNSLS

Were you satisfied with the services (1=YES 2=NO)?

# **SIJOB**

...use the job placement services?....

If SIJOB ne 1--3 goto SICULT

#### **SLIOBS**

Were you satisfied with the services (1=YES 2=NO)?

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**SICULT** 

If LEVEL lt 3

...participate in cultural activities including music, art, and drama?.....

If SICULT ne 1--3 goto SISPRT

**SICULTS** 

Were you satisfied with the activities (1=YES 2=NO)?

**SISPRT** 

If LEVEL lt 3

...use the sports or recreational facilities?.....

If SISPRT ne 1--3, goto SIREAD

**SISPRTS** 

Were you satisfied with the facilities (1=YES 2=NO)?

**SIREAD** 

If SIREMED It 1 or gt 3 goto SICAREER If SIFSTLEV gt 2, goto SICAREER

**INTERVIEWER: ENTER 1= YES 2 = NO** 

You indicated that you had remedial instruction or developmental courses. Was this to improve your skills in...

...reading

If ne 1 goto SIWRIT

**SIREADHR** 

How many hours of instruction did you have (1-500)?

**SIWRIT** 

...writing

If ne 1, goto SIMATH SIWRITHR

How many hours of instruction did you have (1-500)?

SIMATH

...math

If ne 1, goto SISTUD

**SIMATHHR** 

How many hours of instruction did you have (1-500)?

**SISTUD** 

...study skills

If ne 1, goto SILANG

**SISTUDHR** 

How many hours of instruction did you have (1-500)?

**SILANG** 

...English language skills

If ne 1, goto SICAREER

**SILANGHR** 

How many hours of instruction did you have (1-500)?

**SICAREER** 

If BPSELIG ne <1> goto I\_END

What job, if any, do you expect to have when you finish your program?

INTERVIEWER: PLEASE ENTER THE OCCUPATION INFO ONLY IN THE FOLLOWING SCREENS OF THE USEREXIT

1 = ENTER/RE-ENTER THE USEREXIT

2 = SKIP OVER THE USEREXIT

**SIAUTH** 

Are the following personal goals very important to you?

INTERVIEWER: 1= YES 2= NO

Becoming an authority in a field.

SIINFL

Influencing the political structure.

**SIFINC** 

Being very well off financially.

**SIBUSIN** 

Becoming successful in your own business.

**SISUCCAR** 

Being successful in a particular career.

**SILEAD** 

Being a leader in the community.

**SILIVCLS** 

Living close to your parents and relatives.

**SIAWAY** 

Getting away from the area where you were raised.

**SILEISR** 

Having leisure time to enjoy personal interests.

**SIFAMILY** 

Raising a family.

**SIBTROPP** 

Being able to give your children better opportunities than you had.

I\_END

# STUDENT CATI Section J

# **SJINTRO**

If bps\_elig ne 1 goto SJSOCSEC

You've been selected for a U.S. Department of Education study to determine what happens to students as they pursue their education. We would like to talk to you again in a couple years to see what you are doing and what has changed in your life. To find you, we need some locating information; which will be kept in strict confidence.

# **SJBPSCON**

Would you please tell me the name, address, and phone number of a person -- preferably a relative other than your parents -- who lives at an address

different from yours and who will always know where to get in touch with you?

1 = YES

2 = NO

-1 = DK - 2 = RE

ENTER FIRST NAME.

ENTER MIDDLE INITIAL.

ENTER LAST NAME.

ENTER LINE 1 OF ADDRESS.

ENTER LINE 2 OF ADDRESS.

ENTER CITY OF RESIDENCE.

ENTER ALPHABETICAL CODE FOR STATE.

ZIP CODE:

**ENTER PHONE NUMBER:** 

# If SJBPSCON = 2 then goto SJSPOUSE

#### **SJRELATN**

What is this person's relationship to you?

1 = MOTHER/FEMALE GUARDIAN

2 = FATHER/MALE GUARDIAN

3 = SISTER/BROTHER

4 = SPOUSE

5 = OTHER RELATIVE

6 = FRIEND

7 = OTHER SPECIFY

-1 = DK

-2 = RE

# If SJRELATN ne 7 goto SJSPOUSE

# **SJOTHSPF**

SPECIFY RELATIONSHIP OF CONTACT.

# SJSPOUSE

If not married goto SJVERPRM else if married and SJBPSCON =4 goto SJVERPRM

What is your spouse's full name (including maiden name)?

**ENTER FIRST NAME** 

ENTER MIDDLE INITIAL

**ENTER LAST NAME** 

**ENTER MAIDEN NAME** 

#### **SJVERPRM**

We'd also like to verify your **permanent** address. Is it same or similar to:

1.PERMANENT ADDRESS

1.PHONE:

1. ADDR:

1

1. CITY:

1.STATE:

2.PARENT ADDRESS

2.PHONE:

2. ADDR:

2.

2. CITY:

2.STATE:

3.CURRENT RL ADDRESS

3.PHONE:

3. ADDR:

3. 3. CITY:

3.STATE:

9. Totally different address

0. RETURN TO MAIN MENU

1 = PERMANENT ADDRESS FROM CADE

2 = PARENT ADDRESS FROM CADE

3 = ADDRESS FROM CURRENT ROSTER LINE

9 = DIFFERENT FROM ABOVE -1=DK -2=RE

If SJVERPRM It 0 goto SJVERLOC

# SIVERPR2

DO YOU NEED TO CORRECT THE ADDRESS?

1 = YES

2 = NO

If SJVERPRM = 2 goto SJVERLOC

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## **SJPRMADR**

INTERVIEWER: VERIFY AND/OR UPDATE THE PERMANENT ADDRESS.

ENTER LINE 1 OF ADDRESS. ENTER LINE 2 OF ADDRESS.

ENTER CITY OF RESIDENCE.

ENTER ALPHABETICAL CODE FOR STATE.

ZIP CODE:

ENTER PHONE NUMBER:

# **SJVERLOC**

And is your local address same or similar to:

1.PERMANENT ADDRESS

1.PHONE:

1. ADDR:

1.

1. CITY:

1.STATE:

2.LOCAL ADDRESS

2.PHONE:

2. ADDR:

2.

2. CITY:

2.STATE:

3.CURRENT RL ADDRESS

3.PHONE:

3. ADDR:

3.

3. CITY:

3.STATE:

9. Totally different address

**0.RETURN TO MAIN MENU** 

1 = PERMANENT ADDRESS FROM PRMADD

2 = LOCAL ADDRESS FROM CADE

3 = ADDRESS FROM CURRENT ROSTER LINE

9 = DIFFERENT FROM ABOVE -1=DK -2=RE

If SJVERLOC It 0 goto SJEMAIL

# SJVERLO2

DO YOU NEED TO CORRECT THE ADDRESS?

1 = YES

2 = NO

If SJVERLO2 = 2 goto SJEMAIL

# SJ\_LOCADR

INTERVIEWER: VERIFY AND/OR UPDATE THE LOCAL ADDRESS.

ENTER LINE 1 OF ADDRESS.

ENTER LINE 2 OF ADDRESS.

ENTER CITY OF RESIDENCE.

ENTER ALPHABETICAL CODE FOR STATE.

ENTER ZIP CODE:

ENTER PHONE NUMBER:

# SJEMAIL

Do you have an e-mail (ELECTRONIC MAIL) address?

1 = YES

2 = NO

-1 = DK

-2 = RE

If SJEMAIL ne 1 goto SJNICK

# **SJEMADDR**

What is it?

# **SJNICK**

Do your parents, relatives, or friends know you by any other name other than [fill student]?

1 = YES

2 = NO

-1 = DK

-2 = RE

If SJNICK ne 1 goto SJDRVLIC

#### **SJNAMSPF**

What is that other name?

SPECIFY NAME:

# SJDRVLIC

If z\_drvlic gt <>, store z\_drvlic in SJDRVLIC, goto SJFTRCTY

To help us in locating you later, please tell me in what

state your driver's license was issued.

NM=New Mexico AL=Alabama AK=Alaska AS=American Samoa AZ=Arizona

NY=New York NC=North Carolina ND=North Dakota

AR=Arkansas CA=California CO=Colorado CT=Connecticut DE=Delaware DC=District of Columbia FL=Florida

OR=Oregon PA=Pennsylvania PR=Puerto Rico RI=Rhode Island SC=South Carolina

OK=Oklahoma

OH=Ohio

SD=South Dakota TN=Tennessee TX=Texas

HI=Hawaii ID=Idaho IL=Illinois IN=Indiana IA=Iowa

GA=Georgia

GU=Guam

UT=Utah VT=Vermont VI=Virgin Islands VA=Virginia WA=Washington

WV=West Virginia

KS=Kansas KY=Kentucky LA=Louisiana

WI=Wisconsin WY=Wyoming AA, AE, AP = Military

ME=Maine MD=Maryland MA=Massachusetts MI=Michigan MN=Minnesota MS=Mississippi

CN=Canada FM=Fed States of Micronesia MH=Marshall Islands

MO=Missouri MT=Montana NE=Nebraska NV=Nevada

MX=Mexico MP=Northern Mariana Islands

NH=New Hampshire NJ=New Jersey NA=Not Available

NN=No driver's license

PW=Palau Island FC=Foreign Country -1=DK -2= RE

If SJDRVLIC = CN goto SJPRVSPF else if SJDRVLIC = NA goto SJFTRCTY else if SJDRVLIC = NN goto SJFTRCTY else goto SJNUMBR

# SIPRVSPF

SPECIFY CANADIAN PROVINCE

AB= Alberta

BC= British Columbia MB= Manitoba

NB= New Brunswick NF= Newfoundland NS= Nova Scotia ON= Ontario

PE= Prince Edward Island

PQ= Quebec SK= Saskatchewan NT= Northwst Territories YT= Yukon Territory -1= Don't Know -2= Refused

# **SJNUMBR**

May I have your driver's license number?

1 = YES2 = NO-1 = DK-2 = RE

If SJNUMBR ne 1 goto SJFTRCTY

# SINUMBRT

ENTER DRIVER'S LICENSE NUMBER:

# **SJFTRCTY**

In what city and state do you expect to be living two years from now?

# **ENTER -2 FOR CITY FOR REFUSAL**

SPECIFY CITY ENTER ALPHABETICAL CODE FOR STATE

#### SJSOCSEC

If cpsmatch eq 1 goto SJCK\_PAR

Can you tell me your social security number (1=YES 2=NO)?

If SJSOCSEC = 1 goto SJCORSSN else if SJSOCSEC = 2 goto SJSIDANS else goto SJCK\_PAR

# **SJCORSSN**

What is your Social Security number?

# **SJSSNSID**

Is your student ID number the same as your Social Security number (1=YES 2=NO)?

If SJSSNSID eq 1 goto SJCK\_PAR else goto SJSTDNUM

# SJSIDANS

Can you tell me your student ID number (1=YES 2=NO)?

If SJSIDANS ne 1 goto SJCK\_PAR

# **SJSTDNUM**

What is your student ID number?

# SJCK\_PAR

If SAAGE gt 29 goto J\_END else if both parents are dead and there are no guardians goto J\_END

INTERVIEWER: THIS CASE NEEDS A PARENT INTERVIEW. CURRENT STATUS OF THE PARENT INTERVIEW IS: [fill pa\_status].

WE NEED TO GET LOCATING INFORMATION FROM THE RESPONDENT AND WILL DO SO IN THE NEXT COUPLE OF SCREENS.

**J\_END** 

# **PARENT CATI** Section L

#### **PLRELAT**

I would like to ask some questions about your role in financing [student's name]'s expenses for the 1995-96 school year.

But before we begin, could you tell me your relationship to [student's name]?

- I = MOTHER
- 2 = STEP MOTHER
- 3 = OTHER FEMALE RELATIVE OR GUARDIAN
- 4 = FATHER
- 5 = STEP FATHER
- 6 = OTHER MALE RELATIVE OR GUARDIAN

#### **PLMARST**

What is your marital status?

- I = MARRIED
- 2 = SEPARATED
- 3 = DIVORCED
- 4 = WIDOWED
- 5 = SINGLE, NEVER MARRIED
- -2 = REFUSED

#### **PLSTDDEP**

Was [student's name] your dependent between July 1, 1995 and June 30, 1996.(A DEPENDENT IS SOMEONE WHO RECEIVES MORE THAN HALF OF HIS OR HER SUPPORT FROM YOU).

- I = YES
- 2 = NO
- -1 =DK
- -2 =RE

# **PLNUMDEP**

How many people did [you/you and your spouse] support between July 1, 1995 and June 30, 1996?

PLEASE INCLUDE (student's name), YOURSELF, YOUR SPOUSE, AND ALL OF YOUR DEPENDENT CHILDREN. ALSO INCLUDE (YOUR/YOUR AND YOUR SPOUSE'S) PARENTS IF THEY RECEIVED MORE THAN HALF OF THEIR SUPPORT FROM YOU.

0-20 = DEPENDENTS

- -1 = DK
- -2 = RE

#### **PLPDSCH**

How much money have [you/you and your spouse] paid directly to [student's name]'s school for [his/her] educational expenses for the 1995-96 school year? (We mean only money that you do not expect to be paid back. Please include only expenses that are paid directly to the school.)

0-80.000 = DOLLARS

- -1 = DK
- -2 = RE

If -1, goto PLPDSCHE; else goto PLPDSCTF

# **PLPDSCHE**

Would you estimate that [your/your and your spouse's] payments to the school for the year were...

- 1 = ...less than 1,000
- 2 = ...1 to 4 thousand (LESS THAN \$5,000)
- 3 = ...5 to 9 thousand (LESS THAN \$10,000)
- 4 = ...10 to 19 thousand (LESS THAN \$20,000)
- 5 = ... or 20 thousand or more
- -1 = DK 2 = RE

# **PLPDSCTF**

INTERVIEWER: 1=YES 2=NO

Was that money for...

...tuition and fees?

# **PLPDSCBS**

...books and supplies?

# **PLPDSCHS**

...for housing?

# **PLPDSCML**

...for meals?

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## **PLGVAMT**

How much did [you/you and your spouse] give directly to [student's name] for [his/her] 1995-96 educational expenses, including any allowance?

INCLUDE ONLY EXPENSES THAT ARE PAID DIRECTLY TO THE STUDENT AND WERE DIRECTLY RELATED TO [HIS/HER] ENROLLMENT IN SCHOOL SUCH AS RENT, FOOD, PERSONAL EXPENSES, AND TRANSPORTATION.

0-80,000 = DOLLARS

- -1 = DK
- -2 = RE

# **PLGVEST**

Would you estimate [your/your and your spouse's] payments to [student's name] were...

- 1 = ...less than 1,000
- 2 = ...1 to 4 thousand (LESS THAN \$5,000)
- 3 = ...5 to 9 thousand (LESS THAN \$10,000)
- 4 = ...10 to 19 thousand (LESS THAN \$20,000)
- 5 = ... or 20 thousand or more
- -1 = DK 2 = RE

# **PLGVTFEE**

Was that money intended for...

INTERVIEWER: 1 = YES 2 = NO

-1 = DK - 2 = RE

...tuition and fees?

# **PLGVHOUS**

...housing or rent?

# **PLGVFOOD**

...food or board?

# **PLGVBOOK**

...books?

# **PLGVTRNS**

...transportation expenses?

### **PLGVOTH**

...other expenses?

# **PLLNAMT**

How much money have [you/you and your spouse] loaned to [student's name] for the 1995-96 school year?

BY LOAN, WE MEAN MONEY THAT YOU DO EXPECT [student's name] TO PAY BACK.

PROBE: IF THE ANSWER GIVEN IS A RANGE, IT NEEDS TO BE NARROWED DOWN.

0-80,000 = DOLLARS

- -1 = DK
- -2 = RE

#### **PLLNEST**

Would you estimate [your/your and your spouse's] loan to [student's name] was...

- 1 = ...less than 1,000
- 2 = ...1 to 4 thousand (LESS THAN \$5,000)
- 3 = ...5 to 9 thousand (LESS THAN \$10,000)
- 4 = ...10 to 19 thousand (LESS THAN \$20,000)
- 5 = ... or 20 thousand or more
- -1 = DK 2 = RE

# PLLNTFEE

Was the loan money to be used for...

INTERVIEWER: 1 = YES 2 = NO - 1 = DK - 2 = RE

...tuition and fees?

# **PLLNHOUS**

...books and supplies?

# **PLLNFOOD**

...housing or rent?

#### PLLNBOOK

...meals?

# **PLLNTRNS**

...transportation expenses?

# **PLLNOTH**

...other personal expenses?

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#### **PLSAVNGS**

In order to contribute or lend money for [student's name]'s 1995-96 school year expenses, did [you/you and your spouse] use money from...

INTERVIEWER: 1=YES 2=NO -1=DK -2=RE

...Savings accounts, money market accounts, or certificates of deposits

#### **PLEEBOND**

...Series EE Bonds from the US Savings Bond Program

#### **PLOTHBND**

...Other stocks, bonds or mutual funds

# PLRETIRE

...Funds previously set aside for retirement?

#### **PLLIFEINS**

...Life insurance policies?

#### **PLTRUST**

...A trust fund

# **PLLOANS**

...Any loans including PLUS loan, home equity loan or a line of credit?

#### **PLMRTG**

...A second mortgage on real estate?
(DON'T INCLUDE HOME EQUITY LOANS)

#### **PLRLEST**

...Real estate investments other than your home? PLRELMNY

...Money from relatives, friends, or a former spouse?

# **PLOTHSRC**

... Any other sources?

#### **PLOTSCSP**

OTHER SPECIFY:

## **PLLONAMT**

You said you took out personal loans to help pay [student's name]'s school expenses. About how much would you say you borrowed for 1995-96?

0-80,000

- -1 = DK
- -2 = RE

#### PLLOAN1--PLLOAN5

What kind of loans did you get ...READ LIST AS A PROMPT

#### ENTER ALL THAT APPLY ENTER 0 TO EXIT

- 1 = PLUS LOAN
- 2 = STATE SPONSORED PARENT LOAN
- 3 = SCHOOL SPONSORED PARENT LOAN
- 4 = SIGNATURE LOAN?
- 5 = HOME EQUITY LOAN?
- 6 = LINE OF CREDIT LOAN?
- 7 = LOAN AGAINST A LIFE INSURANCE POLICY
- 8 = COMMERCIAL LOAN?
- 9 = LOAN FROM A NON-PROFIT UNDERWRITER 10 = FAMILY EDUCATION LOAN FROM SALLIE MAE
- 11 = LOAN AGAINST A RETIREMENT FUND
- 12 = PERSONAL LOAN OR LOANS FROM A FORMER SPOUSE, OTHER RELATIVE, OR FRIEND
- 13 = LOANS FROM ANY OTHER SOURCES

# **PLPREPAY**

Did you use a tuition prepayment or guarantee program or a tuition savings plan to pay [student's name]'s education expenses (I=YES 2=NO)?

If PLPREPAY=1 goto PLPREAMT; else goto PLPARPAY

#### **PLPREAMT**

Approximately, how much did you spend on the prepayment plan (1-99,999)?

#### **PLPRETYP**

What type of prepayment plan was it?

- 1 = STATE-SPONSORED
- 2 = SCHOOL-SPONSORED
- 3 = A PRIVATE PLAN
- 4 = OTHER TYPE

## **PLPARPAY**

To what extent have or will [you/you and your spouse] help repay the money that [student's name] has or will have borrowed for [his/her] education?

Will [you/you and your spouse] help with...

- l = all of it
- 2 = some of it, or
- 3 = none of it?

# 4 = HASN'T AND WON'T BORROW ANY

# **MONEY**

- -1 = DK
- -2 = RE

## **PLSTUPAY**

If PLLOAN1 is blank, goto L\_END

To what extent has or will [student's name] help repay the money [you/you and your spouse] borrowed for [his/her] 1995-96 school year expenses?

Will [student's name] help with...

- l = all of it
- 2 =some of it, or
- 3 = none of it?
- -1 = DK
- -2 = RE

#### **PLSTRTSV**

What grade was [student's name] in when [you/you and your spouse] first began to save for [his/her] postsecondary education?

- 1 = BEFORE 1st GRADE
- 2 = 1st TO 6th GRADE
- 3 = 7th TO 9th GRADE
- 4 = 10th TO 12th GRADE
- 5 = AFTER HIGH SCHOOL
- 6 = DID NOT SAVE
- -1 = DON'T KNOW
- -2 = REFUSED

# L\_END

# PARENT CATI Section M



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#### **PMNUMPSE**

How many of your **dependents**, were in college or other postsecondary school at least half time during the 1995-96 school year?

0 = NO DEPENDENTS IN POSTSECONDARY SCHOOL HALF TIME 1-20 = DEPENDENTS IN POSTSECONDARY SCHOOL HALF TIME

-1 = DK

-2 = RE

## **PMAMTOTH**

How much would you estimate you contributed or loaned to help meet their 1995-96 school expenses?

YOUR ESTIMATE SHOULD INCLUDE TUITION AND FEES, ROOM AND BOARD, RENT, TRANSPORTATION, AND ANY OTHER EDUCATION RELATED EXPENSES.

0-80000 = DOLLARS

-1 = DK

-2 = RE

#### **PMEVRPSE**

Including everyone [you/you and your spouse] have ever supported, how many have ever attended a postsecondary school? Please include [student's name], [and yourself/yourself and your spouse].

1-20 = DEPENDENTS

-1 = DK

-2 = RE

## **PMBORROW**

How much money have you borrowed for the postsecondary education of your children? Please include [student's name] in your estimate (if appropriate).

NOTE: INCLUDE SPOUSE'S CHILDREN/ STEPCHILDREN, IF APPLICABLE.

0-300,000 DOLLARS

#### **PMDEPOWE**

If PMBORROW le 0, goto M\_END

Of the \$[fill PMBORROW] you've borrowed, how much do you still owe?

M\_END



# PARENT CATI Section N



## **PNWRKPAY**

My next few questions have to do with [your/your and your spouse's] employment. Are you currently working for pay?

# IF NO, PROBE TO DETERMINE IF R IS RETIRED OR NEVER WORKED

- 1 = YES
- 2 = NO
- 3 = NEVER WORKED
- 4 = RETIRED
- -1 = DK
- -2 = RE

If PNWRKPAY=2 or 3 then goto PNDISABL; else goto PNOCCUPC.

#### **PNDISABL**

Do you have a physical, mental, or other health condition that limits or prevents you from working?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

If PNWRKPAY=2, goto PNEMPL95 If PNWRKPAY=3, goto PNSKJOB

#### **PNOCCUPC**

Please give me your [previous] occupation.

INTERVIEWER: PLEASE ENTER THE INFO IN THE FOLLOWING SCREENS OF THE USEREXIT

I = ENTER THE USEREXIT

If PNWRKPAY=4, goto PNYRRET; else goto PNHRSWRK

## **PNHRSWRK**

How many hours do you typically work per week?

INCLUDE ALL HOURS, EVEN IF THEY WERE NOT PAID FOR THOSE HOURS

- 0-80 =
- -1 = DK
- -2 = RE

#### **PNYRRET**

When did you retire?

**GET THE CALENDAR YEAR** 

- 60-96 =
- -1 = DK
- -2 = RE

#### PNEMPL95

Were you **employed** at any time during the 1995 calendar year?

WE ARE SPECIFICALLY INTERESTED IN WORK FOR PAY, NOT VOLUNTEER WORK.

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

If PNWRKPAY=2, goto PNSKJOB; else goto PNSPWKPY

#### **PNSKJOB**

Are you currently looking for a job?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

If 1, goto PNDIFFEMP; else gotoPNSPWKPY

#### **PNDIFEMP**

Are you having trouble finding a job?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE



# **PNSPWKPY**

If PLMARST ne 1, goto PNTOTL95
Is your spouse currently working for pay?

# IF NO, PROBE TO DETERMINE IF SPOUSE IS RETIRED OR NEVER WORKED

- 1 = YES
- 2 = NO
- 3 = NEVER WORKED
- 4 = RETIRED
- -1 = DK
- -2 = RE

If PNSPWKPY=2 or 3, goto PNDISWRK; else PNOCCSP

#### **PNDISWRK**

Does your spouse have a physical, mental, or other health condition that limits the amount or kind of work [he/she] can do?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

If PNSPWKPY=2, goto PNSPEM95 If PNSPWKPY=3, goto PNSKJBSP

#### **PNOCCSP**

Please give me your spouse's [previous] occupation.

INTERVIEWER: PLEASE ENTER THE INFO IN THE FOLLOWING SCREENS OF THE USEREXIT

1 = ENTER THE USEREXIT

If PNSPWKPY=4, goto PNRETSP Else goto PNHRWKSP

# **PNHRWKSP**

How many hours does your spouse typically work per week?

INCLUDE ALL HOURS, EVEN IF THEY WERE NOT PAID FOR THOSE HOURS

- 0-80 =
- -1 = DK
- -2 = RE

#### **PNRETSP**

When did your spouse retire?

GET THE CALENDAR YEAR

- 60-96 =
- -1 = DK
- -2 = RE

#### PNSPEM95

Was [he/she] **employed** at any time during the 1995 calendar year?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

If PNSPWKPY=2, goto PNSKJBSP; else goto PNTOTL95

#### **PNSKJBSP**

Is [he/she] currently looking for a job?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

If PNSKJBSP=1, goto PNSPDFEM; else goto PNTOTL95

## **PNSPDFEM**

Is [he/she] having trouble finding a job?

- 1 = YES
- 2 = NO
- -1 = DK
- -2 = RE

#### PNTOTL95

My next few questions refer to your 1994 and 1995 income.

INTERVIEWER: ENTER 1 FOR THE 1994 AMOUNT, IF 1994 AMOUNT IS SAME AS 1995. ENTER 2 FOR THE AMOUNT FROM JOBS, IF IT IS THE SAME AS THE TOTAL INCOME. ENTER 3 FOR THE SPOUSE'S INCOME, IF IT IS THE DIFF THE TOTAL AND R'S INCOME

What was [your/your and your spouse's] total income from all sources, prior to taxes and deductions,...

...for 1995

#### PNTOTL94

...for 1994

#### PNWAGE95

What is your estimate of your total income from all jobs...

...in 1995?

# PNWAGE94

...in 1994?

# PNSPWG95

# If PLMARST=1

What was your spouse's income from all jobs...

...in 1995?

#### PNSPWG94

#### If PLMARST=1

...in 1994?

#### PNUNTX95

Income from AFDC, or other government welfare programs...

...in 1995?

#### PNUNTX94

...in 1994?

#### PNEST95

Would you estimate that your 1995 employment income was more or less than \$30,000?

- 1 = LESS THAN \$30,000
- 2 = MORE THAN \$30,000
- -1 = DK
- -2 = RE

If PNEST95=1, goto PNEST95L; if PNEST95=2, goto PNEST95M; else goto PNEST94

## PNEST95L

Please tell me if your employment income for 1995 was...

- 1 = Less than 5.000
- 2 = 5 to 9 thousand (LESS THAN \$10,000)
- 3 = 10 to 19 thousand (LESS THAN \$20,000)
- 4 = 20 to 29 thousand (LESS THAN \$30,000)
- -1 = DK
- -2 = RE

#### PNEST95M

I'm going to read you some dollar ranges. Please tell me the range that best estimates your employment income for 1995...

- 1 = 30 to 39 thousand (LESS THAN \$ 40,000)
- 2 = 40 to 49 thousand (LESS THAN \$ 50,000)
- 3 = 50 to 59 thousand (LESS THAN \$ 60,000)
- 4 = 60 to 69 thousand (LESS THAN \$ 70,000)
- 5 = 70 to 79 thousand (LESS THAN \$ 80,000)
- 6 = 80 to 89 thousand (LESS THAN \$ 90,000)7 = 90 to 99 thousand (LESS THAN \$100,000)
- 8 = \$100,000 or more
- -1 = DK
- -2 = RE

#### PNEST94

Would you estimate that your 1994 employment income was more or less than \$30,000?

- 1 = LESS THAN \$30,000
- 2 = MORE THAN \$30,000
- -1 = DK
- -2 = RE

If PNEST94=1, goto PNEST94L; if PNEST94=2, goto PNEST94M; else goto PNSPE95



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#### PNEST94L

I'm going to read you some dollar ranges. Please tell me the range that best estimates your employment income for 1994...

- 1 = Less than 5,000
- 2 = 5 to 9 thousand (LESS THAN \$10,000)
- 3 = 10 to 19 thousand (LESS THAN \$20,000)
- 4 = 20 to 29 thousand (LESS THAN \$30,000)
- -1 = DK
- -2 = RE

#### PNEST94M

I'm going to read you some dollar ranges. Please tell me the range that best estimates your employment income for 1994...

- 1 = 30 to 39 thousand (LESS THAN \$ 40,000)
- 2 = 40 to 49 thousand (LESS THAN \$ 50,000)
- 3 = 50 to 59 thousand (LESS THAN \$ 60,000)
- 4 = 60 to 69 thousand (LESS THAN \$ 70,000)
- 5 = 70 to 79 thousand (LESS THAN \$ 80,000)
- 6 = 80 to 89 thousand (LESS THAN \$ 90,000)
- 7 = 90 to 99 thousand (LESS THAN 100,000)
- 8 = \$100,000 or more
- -1 = DK
- -2 = RE

# PNSPE95

If PLMARST ne 1, goto PNTOTSAV

Would you estimate that your spouse's 1995 employment income was more or less than \$30,000?

- 1 = LESS THAN \$30.000
- 2 = MORE THAN \$30,000
- -1 = DK-2 = RE

If PNSPE95=1, goto PNSPE95L; if PNSPE95=2, goto PNSPE95M; else goto PNSPE94

# PNSPE95L

I'm going to read you some dollar ranges. Please tell me the range that best estimates your spouse's employment ncome for 1995...

- 1 = Less than 5.000
- 2 = 5 to 9 thousand (LESS THAN \$10,000)
- 3 = 10 to 19 thousand (LESS THAN \$20,000)
- 4 = 20 to 29 thousand (LESS THAN \$30,000)
- -1 = DK-2 = RE

#### PNSPE95M

I'm going to read you some dollar ranges. Please tell me the range that best estimates your spouse's employment income for 1995...

- 1 = 30 to 39 thousand (LESS THAN \$ 40,000)
- 2 = 40 to 49 thousand (LESS THAN \$ 50,000)
- 3 = 50 to 59 thousand (LESS THAN \$ 60,000)
- 4 = 60 to 69 thousand (LESS THAN \$ 70,000)
- 5 = 70 to 79 thousand (LESS THAN \$ 80,000)
- 6 = 80 to 89 thousand (LESS THAN 90,000)
- 7 = 90 to 99 thousand (LESS THAN 100,000)
- 8 = \$100,000 or more
- -1 = DK
- -2 = RE

#### PNSPE94

Would you estimate that your spouse's 1994 employment income was more or less than \$30,000?

- 1 = LESS THAN \$30,000
- 2 = MORE THAN \$30,000
- -1 = DK
- -2 = RE

If PNSPE94=1, goto PNSPE94L; if PNSPE94=2, goto PNSPE94M; else goto PNTOTSAV

#### PNSPE94L

I'm going to read you some dollar ranges. Please tell me the range that best estimates your spouse's employment income for 1994...

- 1 = Less than 5,000
- 2 = 5 to 9 thousand (LESS THAN \$10,000)
- 3 = 10 to 19 thousand (LESS THAN 20,000)
- 4 = 20 to 29 thousand (LESS THAN \$30,000)
- -1 = DK
- -2 = RE

# PNSPE94M

I'm going to read you some dollar ranges. Please tell me the range that best estimates your spouse's employment income for 1994...

- 1 = 30 to 39 thousand (LESS THAN \$ 40,000)
- 2 = 40 to 49 thousand (LESS THAN \$ 50,000)
- 3 = 50 to 59 thousand (LESS THAN \$ 60,000)
- 4 = 60 to 69 thousand (LESS THAN \$ 70,000)
- 5 = 70 to 79 thousand (LESS THAN \$ 80,000)
- 6 = 80 to 89 thousand (LESS THAN \$ 90,000)
- 7 = 90 to 99 thousand (LESS THAN \$100,000)
- 8 = \$100,000 or more
- -1 = DK-2 = RE

## **PNTOTSAV**

Currently, is the total worth of [your/your and your spouse's] cash, savings, and checking accounts more than \$10,000?

$$1 = Yes$$

$$2 = No$$

$$-1 = DK - 2 = RE$$

### **PNTOTRET**

Is the total worth of [your/your and your spouse's] retirement and/or pension accounts worth more than \$50,000?

$$1 = Yes$$

$$2 = No$$

$$-1 = DK - 2 = RE$$

#### **PNOWNHM**

Do you own your home?

INTERVIEWER: IF THE PARENT IS PAYING MORTGAGE, CODE IT AS YES...

1 = YES, WE OWNED THE HOME OR WERE PAYING MORTGAGE

2 = NO, WE WERE RENTING OR LIVING SOMEWHERE ELSE

$$-2 = RE$$

#### **PNHMVAL**

What would you estimate is the total worth of [your/your and your spouse's] home?

$$1-9500000 = Dollars$$

$$-1 = DK$$

$$-2 = RE$$

#### **PNHMVALE**

Would you say [your/your and your spouse's] home is worth...

1 = Less than \$25,000

2 = 25 to 49 thousand (LESS THAN \$ 50000)

3 = 50 to 99 thousand (LESS THAN \$100000)

4 = 100 to 249 thousand (LESS THAN \$250000)

5 = ...or, \$250,000 or more

-1 = DK

-2 = RE

## **PNHMOWE**

How much would you estimate you still owe?

0 = NONE

1-9500000 = Dollars

-1 = DK

-2 = RE

#### **PNHMOWEE**

Would you estimate the amount owed to be...

1 = Less than \$25.000

2 = 25 to 49 thousand (LESS THAN \$ 50000)

3 = 50 to 99 thousand (LESS THAN \$100000)

4 = 100 to 249 thousand (LESS THAN \$250000)

5 ...or, \$250,000 or more

-1 DK

-2 RE

# **PNOTHEQ**

Currently, is the equity in [your/your and your spouse's] business, including farms, over \$50,000?

THE BUSINESS OR FARM MUST BE OWNED BY THE RESPONDENT OR SPOUSE

1 = YES

2 = NO - EOUITY IS NOT OVER 50,000

3 = NO - NO BUSINESS /FARM OWNED

-1 = DK

-2 = RE

# **PNINVEST**

Not including your primary residence, is the current worth of [your/your and your spouse's] real estate, and investments, such as stocks and bonds more than \$50,000?

NOTE: DON'T INCLUDE INVESTMENTS
ASSOCIATED WITH RETIREMENT/PENSION
ACCOUNTS, IRAs, ETC.

1 = YES

2 = NO

-1 = DK

-2 = RE

N\_END

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# PARENT CATI Section P

#### **PPNOAID**

If student has aid (SZTOTAID=1 or SDRECVD1=2 or SZPLUS gt 0) goto PPCONSDR

Has [student's name] ever applied for financial aid for [his/her] education beyond high school?

(FINANCIAL AID INCLUDES GRANTS, SCHOLARSHIPS, FELLOWSHIPS, LOAN OR WORK STUDY PROGRAM)

1 = YES

2 = NO

-2 = RE

-1 = DK

If PPNOAID=2 goto PPNOAID1; else goto PPCONSDR

#### PPNOAID1--PPNOAID0

Why did your family not apply for financial aid for [student's name]?

ENTER ALL THE CODES IN THE ORDER MENTIONED BY THE RESPONDENT. ENTER 0 TO EXIT

- 1 = FAMILY AND STUDENT COULD PAY
- 2 = NOT WILLING TO GO INTO DEBT
- 3 = FAMILY INCOME TOO HIGH TO QUALIFY
- 4 = GRADES/TEST SCORES TOO LOW TO QUALIFY
- 5 = AID APPLICATION PROCESS TOO DIFFICULT
- 6 = DID NOT WANT TO DISCLOSE FINANCIAL SITUATION
- 7 = PART-TIME STUDENT -- INELIGIBLE FOR AID
  - 8 = NO MONEY WAS AVAILABLE
  - 9 = MISSED APPLICATION DEADLINE
  - 10 = OTHER REASON

#### **PPNEVSPF**

OTHER SPECIFY:

#### **PPCONSDR**

Did you and [student's name] consider the graduation rate, the campus crime rate or the job placement rate in deciding to attend the school (1=YES 2=NO)?

#### **PPGRADRT**

Which ones did you consider?

**INTERVIEWER: 1= YES 2= NO** 

**GRADUATION RATE?** 

**PPCRIMRT** 

**CRIME RATE?** 

**PPPLACRT** 

JOB PLACEMENT RATE?

#### **PPHLPSEL**

Did you help [student's name] select [NPSAS school]?

1 = YES

2 = NO

-1 = DK

-2 = RE

### PPHELP1 -- PPHELP7

How did you help?

INTERVIEWER: CODE ALL THAT APPLY

ENTER 0 TO EXIT THIS SCREEN

1 =...VISIT THE CAMPUS.

2 =...SOLICIT LETTERS OF

RECOMMENDATION.

3 =...PAY FOR STUDENT'S TRIPS TO VISIT CAMPUSES.

4 =...PURCHASE OR REVIEW REFERENCE GUIDES ABOUT SCHOOLS.

5 =...WRITE TO SCHOOLS FOR INFORMATION.

6 =...ASKED INFORMATION/QUESTIONS OF OTHERS WHO HAVE ATTENDED, OR WHOSE CHILDREN HAD ATTENDED THE SCHOOL.

7 =...OTHER (PLEASE SPECIFY)

#### **PPHELPSP**

Please specify:

P\_END

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AS:96 METHODOLOGY REPORT: APPENDIX D

# PARENT CATI Section Q

#### **POHISP**

Before we end the interview, I have a few questions about your background and education.

Are you of Hispanic origin (if yes, of which descent)?

0 = NO

1 = Mexican, Mexican-American, or Chicano descent?

2 = Cuban descent?

3 = Puerto Rican descent?

4 = some other Hispanic origin?

-1 = DK

-2 = RE

#### **PORACE**

What is your race?

#### READ LIST AS A PROMPT

1 = WHITE.

2 = AFRICAN AMERICAN, BLACK,

3 = AMERICAN INDIAN. ALASKA NATIVE,

4 = ASIAN OR PACIFIC ISLANDER?

5 = OTHER

-1 = DK

-2 = RE

#### **PORACSPF**

SPECIFY OTHER RACE.

If PQRACE=3, goto PQTRIBE; if PQRACE=4, goto PQASIAN; else goto PQYOB

# **PQTRIBE**

Are you enrolled in a state- or federally-recognized tribe?

1 = YES

2 = NO

-1 = DK

-2 = RE

#### POASIAN

Are you...

1 = Chinese

2 = Korean

3 = Filipino

4 = Japanese

5 = Vietnamese

6 = Asian Indian

7 = Thai

8 = Hawaiian

9 = Samoan

10 = Guamanian

11 = Other Asian or Pacific Islander?

#### **POYOB**

What year were you born?

00-78

-1 = DK

-2 = RE

### **PQEDUCR**

What is the highest level of education you have completed?

1= DID NOT FINISH HIGH SCHOOL

2= FINISHED HIGH SCHOOL EQUIVALENT

3= LESS THAN 1 YR OF OCCUPATIONAL, TRADE, TECHNICAL OR BUSINESS SCHOOL

4= ONE BUT LESS THAN 2 YEARS OF OCCUPATIONAL, TRADE, TECHNICAL, OR BUSINESS SCHOOL

5= 2 YEARS OR MORE OF OCCUPATIONAL, TRADE, OR BUSINESS SCHOOL

6= LESS THAN 2 YEARS OF COLLEGE

7= 2 OR MORE YEARS OF COLLEGE, INCLUDING 2-YR DEGREE

8= BACHELOR'S DEGREE - 4 OR 5 YEAR DEGREE

9= MASTER'S DEGREE OR EQUIVALENT

10= MD/DDS/LLB/OTHER ADVANCED PROFESSIONAL DEGREE

11= DOCTORATE DEGREE - PHD, EDD, DBA

-1 DK -2 RE

#### **PQYOBS**

If PLMARST ne 1, goto PQPSESEL

What year was your spouse born?

00-78

-1 = DK

-2 = RE

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#### **POEDUCS**

What is the highest level of education your spouse has completed?

1= DID NOT FINISH HIGH SCHOOL 2= FINISHED HIGH SCHOOL EQUIVALENT 3= LESS THAN 1 YR OF OCCUPATIONAL, TRADE, TECHNICAL OR BUSINESS SCHOOL 4= ONE BUT LESS THAN 2 YEARS OF OCCUPATIONAL, TRADE, TECHNICAL, OR **BUSINESS SCHOOL** 5= 2 YEARS OR MORE OF OCCUPATIONAL, TRADE, OR BUSINESS SCHOOL 6= LESS THAN 2 YEARS OF COLLEGE 7= 2 OR MORE YEARS OF COLLEGE, INCLUDING 2-YR DEGREE 8= BACHELOR'S DEGREE - 4 OR 5 YEAR DEGREE 9= MASTER'S DEGREE OR EQUIVALENT 10=MD/DDS/LLB/OTHER ADVANCED PROFESSIONAL DEGREE 11= DOCTORATE DEGREE - PHD, EDD, DBA -1 DK -2 RE

# **PQPSESEL**

If PQEDUCR le 2 and PQEDUCS le 2, goto PQSTATE

How much have [you/you and your spouse] borrowed for your own postsecondary education?

0-100,000 DOLLARS

If PQPSESEL le 0, goto PQSTATE

# **PQPAROWE**

Of the \$[PSPSESEL] you've borrowed, how much do you still owe? \

#### **PQSTATE**

What is your state of legal residence?\

**ENTER STATE CODE** 

# **PQPRVRES**

If PQSTATE eq CN

#### SPECIFY CANADIAN PROVINCE:

AB= Alberta
BC= British Columbia
MB= Manitoba
NB= New Brunswick
NF= Newfoundland
NS= Nova Scotia
ON= Ontario
PE= Prince Edward Island
PQ= Quebec
SK= Saskatchewan
NT= Northwst Territories

YT= Yukon Territory

# Q\_END

Abbreviated Hardcopy (English/Spanish)





OMB No. 1850-0666 Expires: 4/30/99

# NATIONAL POSTSECONDARY STUDENT AID STUDY (NPSAS)

Instructions: Please answer each question by placing a check ( ) on the line next to the appropriate response or filling in the information requested. The NPSAS School referenced is the school shown on the label on this page. The study period of interest is the 1995-96 school year (between July 1, 1995 and June 30, 1996). If you do not know an exact dollar amount for an item, please try to estimate the amount.

Your participation in this study is completely voluntary and your decision to participate will not affect any financial aid or other benefits you are receiving. You may decline to answer any question. All information you provide is confidential.

When you have completed your self-administered interview, please return it within 2 weeks in the self-addressed, postage-paid return envelope provided. Thank you for participating in this very important study.

<b>A</b> .	YOUR ENROLLMENT AT THE NPSAS SCHOOL		requirements? If you did not complete high school, in what year were you last enrolled in high school?
1.	Were you enrolled at the NPSAS school sometime between July 1, 1995 and June 30, 1996? The NPSAS school is the school identified on the label shown on this page.	В.	YOUR BACKGROUND
	1 Yes 2 No	6.	What is your birth date? /
2.	While at the NPSAS school between July 1, 1995 and June 30, 1996, were you enrolled in a program or taking courses leading to a degree or certificate?	7.	Are you Hispanic?
	1 Yes 2 No		1 Yes 2 No
3.	At anytime between July 1, 1995 and June 30, 1996, were you enrolled at the NPSAS school in a course bearing credits that could be transferred to another school? 1 Yes2 No	8.	What is your race? 1 American Indian or Alaskan native2 Asian or Pacific Islander3 Black4 White5 Other (Please specify)
4.	Which of the following describes your high school experience?	9.	What is your current marital status? 1 Single, never married → GO TO QUESTION 112 Married3 Separated4 Divorced5 Widowed PLEASE CONTINUE -
_			BEST COPY AVAILABLE

vhat year did you graduate or complete your high school

.NPSAS:96 METHODOLOGY REPORT: APPENDIX D

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10.	What was your marital status on July 1, 1995?	<i>C</i> .	YOUR I	ENROLLMENT AFTER HIGH SC	HOOL
	l Single, never married	17	. When o	did you <b>first</b> enroll in any college or	other
	2 Married			ondary school after	
	3 Separated			hool?	/
	4 Divorced		Ü		month yes
	5 Widowed				monur you
		18	. How m	any colleges or other postsecondary	schools
11.	As of July 1, 1995, how many children or other dependents		did you	attend between July 1, 1995 and	
	(excluding your spouse if married) were living with you or			), 1996? If the NPSAS school	
	receiving at least 50% of their support from you? Please include			only school you attended	
	your parents or guardians			that time period, enter 1	
	and other individuals if they			vitat vitic perioa, emer 1	
	received at least 50% of their	19	When a	lid you first enroll in the NPSAS	
	support from you.	17		after high school?	,
	Enter 0 if none.		SCHOOL	arter mgn school:	.•
	zinor o y nono.				month yea
12.	Are you currently in the reserves or on active duty in the U.S. military?	20		the <b>first</b> term you were enrolled at tl 5-96 school year, what degree, certif	
	•			ou seeking? Please choose only one.	icate, or other awart
	1 Yes		were ye	ou seeking. Theuse choose only one.	
	2 No		UNDE	RGRADUATE:	
13.	Are you a veteran of the U.S. military?		1	Bachelor's degree (BA, BS, etc.)	
			2	Associate's degree (AA, AAS, AS,	etc.)
	1 Yes		3	Certificate or other formal award n	ot listed above
	2 No		4	Special undergraduate student - no	
				program	
14.	Do you have any disabilities or impairments? Please check all			•	
	that apply.		If you c	hecked one of the UNDERGRADU	ATE options above,
	0 No disabilities or impairments		GO 10	QUESTION 22	
	1 A hearing impairment		GRADI	IIA TE.	
	2 A speech disability or limitation		GRAD	DATE.	
	3 An orthopedic or mobility limitation		5	Dost hassalaumata autiCasta	
	4 A specific learning disability		5	Post-baccalaureate certificate	
	5 A vision impairment that cannot be corrected with		6	Master's degree (MA, MS, MBA, e	etc.)
	eyeglasses or legally blind		7	Please specify	
	6 Other disability or limitation		7	Advanced degree (PhD, MD, JD, E	dD, etc.)
	O Guici disability of Hillitation		0	Please specify	<del></del>
15	During the 1995-96 school year, where did you live most of the		8	Special graduate student - not enrol	lled in a degree
	time?			program	
		21	When d	id you first enroll in your current gra	nduata
	1 On-campus in school-owned housing		nrogram	1? (If you started your current progra	auuaic im at another askasl
	2 Off-campus in school-owned housing		enter th	e date you enrolled in the program at	un at another school
	3 In an apartment or house other than with parents/			hool	
	guardians		ouici sc	11001	
	4 With parents/guardians				month yea
	5 With other relatives	22	What		
	6 Other (Please specify)	22.		as your major or program of study du	
	outer (1 sease specify)		your end year?	rollment at the NPSAS school in the	1995-96 school
16.	In the last year, how many hours of community service or		year!		
	volunteer work did you perform, other than court-		Major		
	ordered service?		141ajUI		<del></del>
	Enter 0 if none.				
	y				

23. During the first term you were enrolled at the NPSAS school in

the 1995-96 school year, what was your level in the program <i>Please choose only one</i> .			27. Did you receive any loans from parents, relatives, or from an sources other than the federal government, state government your employer, or your school, for the 1995-96 school year?				
UNDE	RGRADUATE:		,	1 Yes			
123456	Freshman or first year undergrad Sophomore or second year	uate	_	_2 No → GO TO QUESTI	ON 29		
3	Junior or third year		28. Ho	ow much did you receive?			
4	Senior or fourth year Fifth year or higher senior			SOURCE	AMOUNT		
<u></u> 6	Special student - no level						
	-1			Parents/Guardians	\$		
GRAD	DUATE:			Other relatives or friends	\$		
7 8 9 10 11	First year graduate student Second year Third year Fourth year Fifth year or higher		20 Fy	Other loan source(s): (Please specify)  scluding any loans, how much m	oney did you receive per		
12 <b>D. FINA</b>	Special student - no level		m	onth from your parents/guardians our 1995-96 school expenses?			
	How much did you spend for tuition, fees, and other expenses at all schools attended during the 1995-96 school year?		at 30. W ur	What is the <b>total</b> amount you have ever borrowed for your undergraduate and graduate (if applicable) education, including			
	EXPENSES IN 1995-96	AMOUNT		deral student loans and loans from			
	Tuition and fees at the NPSAS school, prior to any discounts or waivers		gr	a graduate student, how much have you borrowed for your graduate program? How much do you still owe? Enter 0 to indicate no money borrowed or no money owed for your			
1	Tuition and fees at all other schools attended in the year, prior to any			postsecondary education.			

\$

**AMOUNT** 

2000

2000

2500

\$

\$

\$ \$ \$

BORROWING FOR YOUR EDUCATION	AMOUNT
Total amount EVER borrowed	\$
Amount borrowed for graduate school, if applicable	\$
Amount borrowed in federal studen loans	\$
Total amount currently owed	\$
Amount owed on federal student loans	\$

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D.

discounts or waivers

Books and supplies

tools, or instruments)

Federal Pell grant

Federal Stafford loan

Equipment (e.g., computers, microscopes, \$

25. During the 1995-96 school year, did you receive any financial aid, such as grants, loans, scholarships, tuition waivers, assistantships, employer tuition reimbursement, etc.

26. Please list the sources, types, and amounts of aid you received to

Yes  $N_0 \rightarrow GO TO QUESTION 27$ 

attend all schools during the 1995-96 school year.

SOURCE/TYPE

Institutional Research Assistantship





EMPLOYMENT AND INCOME	F. PARENT/GUARDIAN INFORMATION
Between July 1, 1995 and June 30, 1996, how many jobs did you have?	What was your parents'/guardians' marital status on July 1, 1995?
About how many hours did you work per week while you were enrolled during the 95-96 school year. About how many weeks did you work? If you did not work while enrolled, enter 0 and GO TO QUESTION 33.	<ul> <li>1 Married to each other</li> <li>2 Divorced</li> <li>3 Separated</li> <li>4 Never married</li> <li>5 One or both deceased</li> <li>6 Never knew parents; no legal guardians →GO TO</li> </ul>
Worked hours per week for weeks.	QUESTION 39 7 Never knew parents; raised by legal guardian(s)
while you were enrolled?	38. What is the highest grade or level of education your parents/guardians ever completed? Circle the appropriate number in the first column for your mother/female guardian and in the second column for your
not work while enrolled or if you held more than one job at that time, your principal job may be the job worked the longest number of hours per week, paying the highest wage, or most	father/male guardian.  Mother/Female  Guardian  Father/Male  Guardian
Job Title:	1 Did not complete high school
Duties:	business school  4 One to less than 2 years of occupational, trade, 4 technical, or business school  5 2 years or more of occupational, trade, technical, or 5
1995 calendar years (January 1 to December 31).	business school  6 . Less than 2 years of college
INCOME SOURCE 1994 1995  Total income from all sources, EXCLUDING any financial aid you may have received \$	9 Master's degree or equivalent
Your jobs, EXCLUDING any financial aid you may have received \$	What is it?
any financial aid.	THANK YOU for participating in this important
Please check all that apply.	THANK YOU for participating in this important study. Please return this form in the enclosed, postage-paid envelope or mail to:  Ms. Katy Ong Center for Research in Education Research Triangle Institute P.O. Box 12194 Research Triangle Park, NC 27709.
	Between July 1, 1995 and June 30, 1996, how many jobs did you have?  If 0, GO TO QUESTION 35

# NATIONAL POSTSECONDARY STUDENT AID STUDY [NPSAS]

# Formulario para el encuestado

NPSAS:96 METHODOLOGY REPORT: APPENDIX D

# [ESTUDIO NACIONAL SOBRE ASISTENCIA ECONÓMICA PARA STUDIANTES EN ESCUELAS POS-SECUNDARIASI

Instrucciones para completar esta encuesta: Por favor conteste cada pregunta haciendo una marca ( 🗸 ) en la linea al lado de la respuesta apropiada o llenando la información requerida. El concepto de Escuela NPSAS al cual nos refirimos en varias preguntas es la escuela cuyo nombre esta en la etiqueta que se encuentra en esta página. El período que nos interesa para este estudio es el año escolar 1994-95 (entre las fechas del primero de mayo, 1994 hasta el 30 de junio, 1995). Si usted no sabe la cantidad exacta para una pregunta, favor de estimar la cantidad.

Su participación en este estudio es completamente voluntaria y su decisión de tomar parte no afectaría a ninguna de

a asistencia económica la cual usted este recibiendo. Uste nformación que nos provea es confidencial.	d puede negarse a contestar cualquier pregunta. Toda la
A. SUMATRICULACIÓN EN LA Escuela NPSAS  ¿Estaba usted matriculado en la Escuela NPSAS durante cualquier período académico entre las fechas del primero de	5. ¿En qué fecha se graduó o terminó los requisitos para la escue secundaria? Si no terminó la escuela secundaria, dé la fecha de la última vez que estuvo matriculado en una escuela secundaria mes año
mayó, 1994 y el 30 de junio, 1995? La Escuela NPSAS es la escuela identificada en la etiqueta que se encuentra en esta página.	6. ¿Estaba terminando usted los requisitos para la escuela secundaria durante todo el período que asistió la Escuela NPSAS entre las fechas del primero de mayo, 1994 y el 30 de
1 Sí 2 No	junio, 1995? 1 Sí
2. Mientras asistía la Escuela NPSAS entre las fechas del primero de mayo, 1994 y el 30 de junio, 1995, ¿estaba matriculado en un programa o tomando cursos que resultarían en un diploma (título) o un certificado?	2 No FAVOR CONTINUE
1 Sí 2 No	
3. Durante cualquier período académico entre las fechas del primero de mayo, 1994 y el 30 de junio, 1995, ¿estaba matriculado en un programa o tomando cursos que resultarían en créditos que pudieran transferirse a otra escuela?	
1 Sí 2 No	
4. ¿Cuales de las siguientes mejor describe su experiencia en la escuela secundaria (superior)?	
<ul> <li>1 Graduado de una escuela secundaria pública</li> <li>2 Graduado de una escuela secundaria privada</li> <li>3 Aprobó el examen GED</li> <li>4 Recibió un certificado por haber terminado la escuela secundaria</li> <li>5 No terminó los requisitos para la escuela secundaria</li> </ul>	BEST COPY AVAILABLE

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B. SUS ANTECEDENTES	16. Entre el primero de julio, 1994 y el 30 de junio, 1995, a través
7. ¿Cuál es la fecha de su nacimiento?	del año, ¿por cuántas horas tomó parte en servicios communitarios o como voluntario, sin tomar en cuenta servicio
mes día año	ordenado por las cortes?
8. ¿Es usted hispano/latino?	Anote 0 si ningunas
1 Sí	C. SU MARTICULACIÓN DESPUÉS DE LA ESCUELA
2 No	SECUNDARIA
9. ¿Cual es su raza?	17. ¿En que fecha se matriculó por primera vez en cualquier tipo d escuela pos-secundaria después de la escuela secundaria?
1 Indio norte-americano o nativo de Alaska 2 Asiático o isleño del Pacífico	
3 Negro	mes año
4 Blanco	18. Además de la Escuela NDSAS cocietió a autorea.
5 Otro (Por favor especifique)  10. ¿Cuál es su estado civil actual?	18. Además de la Escuela NPSAS, ¿asistió a cuántas escuelas possecundarias entre el primero de julio, 1994 y el 30 de junio, 1995? Si la Escuela NPSAS fue la única escuela en la cual usted asistió durante ese período,
_ 1 Soltero, nunca casado → SALTE A LA PREGUNTA 12	anote 0
_ 2 Casado	
3 Separado	19. ¿En que fecha se matriculó por primera vez en la ESCUELA NPSAS después de la escuela secundaria?
4 Divorciado	
_ 5 Viudo	mes año
11. ¿Cuál era su estado civil el primero de julio, 1994? 1 Soltero, nunca casado2 Casado3 Separado	20. Durante el <b>primer</b> período académico en que se matriculó en la <b>Escuela NPSAS</b> durante el año escolar 1994-95, ¿qué tipo de diploma (título), certificado u otra asignatura lograba obtener? Favor de escoger solamente una opción.
4 Divorciado 5 Viudo	BACHILLERATO (LICENCIATURA):
12. Desde el primero de julio, 1994, ¿cuántos hijos u otros dependientes estaban viviendo con usted o recibiendo un 50% de apoyo financiero suyo? Favor de incluir sus padres o tutores u otros individuos si ellos reciben un 50% apoyo financiero por cuenta suya.	Bachillerato (BA, BS, etc.)     Grado asociado (AA, AAS, AS, etc.)     Certificado u otro diploma formal no en lista (arriba)     Estudiante especial no licenciado-matriculado pero no en un programa con diploma (títulado)  Si marco una de las opciones ya mencionadas en
Anote 0 si nadie	BACHILLERATO, SALTE A LA PREGUNTA 22.
12 April 1	POSGRADUADO:
13. Actualmente, ¿está en la reserva o es activio militar en las fuerzas armadas de los EE.UU.?	— 2 Davimorato
1 Sí	6 Maestría (MA, MS, MBA etc.)
2 No	Favor especifique:  7 Título ayanzadodoctorado (PhD MD ID EdD
	and a validado doctorado (1 lib, Mib, 1b, Edb.
14. ¿Es usted veterano de las fuerzas armadas de los EE.UU.?	etc.) Favor especifique:8  Estudiante graduado especial-matriculado pero no en
1 Sí 2 No	un programa con diploma (títulado).
15. Durante el año escolar 1994-95, ¿dónde vivió la mayor parte del tiempo?	21. ¿En qué fecha se matriculó por primera vez en una escuela posgraduada?//
	22. ¿Cuál fue su especialidad o su programa de estudio durante el
1 Una vivienda propiedad universitaria hubicada en el "campus"2 Una vivienda propiedad universitaria no en el "campus"3 En un apartamento or casa que no fuera de los padres/tutores	primer plazo (semestre, trimestre) desde que empezo en la <b>Escuela NPSAS</b> en el año escolar 1994-95?
4 Con los padres/tutores 5 Con otros parientes	Especialización:
6 Otro (Favor especifique)	

Favor de escoger solamente una opción.	TIPO/FUENTE	CANTIDAD
BACHILLERATO (LICENCIATURA):  1 Primer año estudiante del bachillerato 2 Segundo año 3 Tercer año 4 Cuarto año (senior)	EJEMPLOS: Pell Grant/Subsidio Federal Stafford Loan/Prestamo Federal Auxiliar de inverstigaciones ("Assistantships")/Institucional	\$2000 \$2500 \$2500
<ul> <li>3 Tercer año</li> <li>4 Cuarto año (senior)</li> <li>5 Quinto año ( higher senior)</li> <li>6 Estudiante especial - ningún nivel</li> </ul>		\$
POSGRADUADO:		\$
7 Primer año estudiante posgraduado 8 Segundo año		\$
- 7 Primer ano estudiante posgraduado - 8 Segundo año - 9 Tercer año - 10 Cuarto año		\$
10 Cuarto año		\$
II Quinto año or más		\$
12 Estudiante especialningún nivel		\$
D. FINANCIAR SU EDUCACIÓN  4. ¿Qué tanto dinero gasto usted en los pagos de matrícula, derechos (o cuotas) de matrícula u otros gastos en todas las escuelas que asistió durante el año escolar 1994-95?	27. ¿Recibió algún <b>préstamo</b> de sus padres, cooperativa de crédito ("credit union") o e <b>no fuera</b> el gobierno federal o estatal, su escuela para el año escolar 1994-95? 1 Sí2 No → SALTE A LA PREGUNTA 2	de cualquier fuent empleador, o su
		-

escuelas que asistió en este año, antes de discuentos o suspención de gastos ("waivers")	
Renta y comida o gastos de huéspede si la vivienda es propiedad universitaria (escuela)	\$
Libros	\$
Equipo (e j., computadora, microscopios, herramientas o instrumentos)	\$
Gastos de ir y venir a las clases, incluyendo feria de carro público o autobus y gasolina	\$

25.	Durante el año escolar 1994-95, ¿recibió algúna asistencia
	económica, tal como un subsidio, préstamos, becas, suspención
	de matrícula, ayudantía ("assistantships"), reembolso de su
	empleador para los gastos de matrícula, y así por lo tanto?

1	Sí				
2	Nο	-	SALTE A LA PREGUN	TA	27

Otros gastos eduacionales (ej., transporte a su \$

domicilio, cuidado de niños mientras va a clase

FUENTE	CANTIDAD
Padres/Tutores	\$
Otros parientes o amigos	\$
Banco, ahorros o préstamos , o cooperativa de crédito ("credit union")	\$
Otra fuente de préstamos:: (Favor especifique)	<del>\$</del>

29. Sin tomar en cuenta algún préstamo, ¿cuánto dinero recibía mensualmente de sus padres/tutores, parientes, o amigos para los gastos del año escolar 1994-95?

FUENTE	CANTIDAD
Pardres/Tutores	<b>\$</b>
Otros parientes y amigos	\$

**FAVOR CONTINUE** →



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30. ¿Cuánto es la cantidad total que ha tomado prestado para su educación desde que salió de la esucuela secundaria, incluyendo préstamos para estudiantes (federales) y préstamos de cualquiera fuente. ¿Cuánto debe todavía? Anote 0 si usted no ha tomado prestado dinero para su educatión pos-secundaria o si no debe ningún dinero.

PRÉSTAMOS PARA SU EDUCACIÓN	CANTIDAD
Cantidad total tomó prestado ALGUNA VEZ	\$
Cantidad en préstamos para estudiantes del gobierno federal	\$
Cantidad total actualmente debe	\$
Cantidad debido a préstamos para estudiantes del gobierno federal	\$

#### E. EMPLEO Y INGRESOS.

Título del empleo:\_\_

\_ 2 No

31. ¿Trabajó, con paga/sueldo, durante algún período entre las fechas
del primero de julio, 1994 y el 30 de junio, 1995?
•

—_ ı	31					
2	No	$\rightarrow$	SALTE	A T.A	PRECUNTA	25

,	¿Qué era su empleo, con paga/sueldo, principal en ese entonces? Su empleo principal puede considerarse como el trabajo donde trabajó las más horas por semana, él que le pagaba el sueldo más alto, o él que más utilizaba su especialización.
,	mas ano, o el que mas utilizaba su especialización.

Re	onsabilidades:
33.	¿Trabajaba (con paga/sueldo) usted al mismo tiempo que estaba matriculado en la escuela?
	1 Sí Si contesto sí, ¿cuántas horas por semana trabajaba

como pormedio? ¿Cuánto se ganaba usted por hora?

. . . . . . . . . . . . . . . . \$\_\_\_\_

34. ¿Cuánto fue su ingreso total de todos los empleos que tuvo entre

el primero de julio, 1994 y el 30 de junio, 1995? 

35. Durante el año escolar 1994-95, ¿participó en algunos de los siguientes programas? (Marque todos los que sean applicables.)

\_\_1 Un programa de estudio y trabajo federal

\_\_2 Un internado o práctica

\_\_3 Un programa de aprendizaje

\_4 Un cooperativo educacional

\_5 Un maestro auxiliar ("teaching assistantship")

\_\_\_6 Un auxiliar de investigaciones ("research assistantship")

36. Por favor llene la planilla de ingresos para los años 1993 and



1994 (incluya desde el primero de enero al 31 de diciembre).

INGRESO	CANTIDAD		
FUENTE	1993	1994	
Sus empleos, incluyendo estudio y trabajo Federal, y "assistanships"	\$	\$	
Los empleos de su esposo, incluyendo estudio y trabajo Federal, y "assistanships"	\$	\$	
Interés, dividendos, y ganancias sobre el capital	\$	\$	
Otras fuentes tales como el mantenimiento de un hijo, el Seguro Social, o Asistencia Pública	\$	<b>\$</b>	

# F. INFORMACION SOBRE LOS PADRES/TUTORES

37. ¿Cuál era el estado civil de	sus padres/tutores lega	ales el primero
de julio, 1994?		F

l Casados uno con el ot
-------------------------

2 Divorciados

\_3 Separados

\_4 Nunca se han casado

\_5 Uno o ambos habían fallecido

\_\_6 Nunca conoció sus padres:

no tenía tutores legales → SALTE A LA PREGUNTA 38

\_\_7 Nunca conoció sus padres; se crió con tutor(es) legal(es)

38. ¿Cuál es el nivel más alto o el año escolar más alto que terminaron sus padres/tutores?

Haga un círculo al número en la primera columna para su madre/tutora y en la segunda columna para su padre/tutor.

Madre/Tutora Padre/Tutor
1 No terminó escuela secundaria
2 Terminó equivalente a la secundaria 2
Menos de 1 eño en un no esculuaria
3 Menos de 1 año en un programa técnico, 3 ocupacional, o secretarial/comercio
4 De 1 a menos de 2 años en un programa 4
técnico, ocupacional, o secretarial/comercio
5 2 años o más en un programa técnico, 5
ocupacional, o secretarial/comercio
6 Menos de 2 años de universidad
7 2 o más años de universidad, incluyendo 7
un diploma de 2-años
8 Bachillerato de 4 o 5 años 8
9 Maestría o equivalente
10 MD/DDS/ID/otro título profesional
10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
11 Doctorado - PhD, EdD, DBA





#### SAPRIAID

Did you get any grants, loans, scholarships, assistantships, work-study, or any other financial aid in 1994-95?

1=YES

2=NO

-1=DK

-2=RE

#### **SACMPLR**

As of [date of main interview], had you completed your program of study and received your [certificate/degree]?

1 = YES, ALREADY COMPLETED PROGRAM AND RECEIVED DEGREE

2 = NO, COMPLETED PROGRAM BUT NOT YET RECEIVED DEGREE

3 = NO, NOT COMPLETED PROGRAM YET.

#### **SACMPCOR**

As of [date of main interview], had you completed your course work and all other requirements for your degree?

0= NOT COMPLETED COURSEWORK.

1= COMPLETED COURSEWORK, BUT NOT ALL REQUIREMENTS

2= COMPLETED ALL REQUIREMENTS.

#### **SBSCHRES**

While enrolled during 95-96, where did you live?

1 = on-campus in school-owned housing,

2 = off-campus in school-owned housing,

3 = in an apartment or house other than with your parents or guardians (including houses owned by fraternities and sororities),

4 = with your parents or guardians,

5 = with other relatives, or

6 = some place else?

### **SCPARTUI**

During 1995-96, did your [fill parent(s)/guardian(s)] pay for any of your...

... Tuition or fees (1=YES 2=NO)?

#### **SCPARRM**

...Room and board (1=YES 2=NO)?

#### **SCPARBK**

...Books or equipment (1=YES 2=NO)?

#### **SCPARALW**

Did your [parent(s)/guardian(s)] give you an allowance that you don't have to repay?

1=YES

2=NO

-1≐DK

-2=RE

#### **SCNUM.JBS**

Between July 1, 1995 and June 30, 1996, how many jobs did you have (0-15)?

COUNT WORK STUDY AND ASSISTANTSHIPS IN ADDITION TO ANY OTHER JOBS HELD.

#### **SCREIMB**

Did you receive tuition reimbursement from your employer (1=YES 2=NO)?

## **NEW ITEM FOR REINTERVIEW ONLY**

Were you awarded any financial aid for the 1995-96 school year?

INCLUDE ANY FINANCIAL AID AWARDED FROM FEDERAL, STATE, OR INSTITUTIONAL SOURCES BUT EXCLUDE FINANCIAL ASSISTANCE FROM FAMILY OR FRIENDS, REGARDLESS OF WHETHER OR NOT ANY AID WAS AWARDED.

1 = YES

2 = NO

-1=DK

-2=RE

#### **SDACCEPT**

Did you accept all of the aid you were awarded for the year?

1 = YES

2 = NO



## **SDBOREVR**

INTERVIEWER: ENTER I TO INDICATE "ALL OF IT"

Including the \$[amount borrowed 95-96 from main interview] from [your [parent(s)/guardian(s)] and all other sources, all sources, H/how much have you borrowed for your education since you left high school (0-200,000)?...

### **SEHOURS**

About how many hours did you work per week while you were enrolled July 1, 1995 through June 30, 1996?

0-99

# **SEENRAMT**

About how much did you earn from all jobs while you were enrolled?

AMOUNT: (0-100,000) \

# **SEENRFRQ**

FREQUENCY:

- 1= PER HOUR
- 2= PER WEEK
- 3= PER MONTH
- 4= PER TERM
- 5= FOR THE YEAR 95-96

#### **SEENRWKS**

Did you work for all or most of the weeks while you were enrolled?

- 1= YES, EVERY WEEK WHILE ENROLLED
- 2= YES, MOST OF THE WEEKS WHILE ENROLLED
- 3= NO, ONLY ABOUT HALF OF THE WEEKS WHILE ENROLLED
- 4= NO, LESS THAN HALF OF THE WEEKS WHILE ENROLLED
- -1= DK
- -2=RE

## SFTOT95

What was your [and your spouse's] total income from all sources, prior to taxes and deductions, excluding any (student) financial aid you may have received... (EXCLUDE WORK STUDY & ASSISTANTSHIPS)

...for 1995?

#### SFTOT94

...for 1994?

#### **SHDADED**

What was the highest grade or level of education your father ever completed?

- 1= DID NOT COMPLETE HIGH SCHOOL
- 2= COMPLETED HIGH SCHOOL OR EQUIVALENT
- 3= LESS THAN I YR OF OCCUPATIONAL, TRADE, TECHNICAL OR BUSINESS SCHOOL
- 4= ONE BUT LESS THAN 2 YEARS OF OCCUPATIONAL, TRADE, TECHNICAL, BUSINESS SCHOOL
- 5= 2 YEARS OR MORE OF OCCUPATIONAL, TRADE, BUSINESS SCHOOL
- 6= LESS THAN 2 YEARS OF COLLEGE
- 7= 2 OR MORE YEARS OF COLLEGE, INCLUDING 2-YR DEGREE
- 8= BACHELOR'S DEGREE -4 OR 5 YEAR DEGREE
- 9= MASTER'S DEGREE OR EQUIVALENT
- 10= MD/DDS/LLB/OTHER ADVANCED PROFESSIONAL DEGREE
- 11= DOCTORATE DEGREE -PHD, EDD, DBA

#### SHMOMED

What was the highest grade or level of education your mother ever completed?

- 1= DID NOT COMPLETE HIGH SCHOOL
- 2= COMPLETED HIGH SCHOOL OR EQUIVALENT
- 3= LESS THAN 1 YR OF OCCUPATIONAL, TRADE, TECHNICAL OR BUSINESS SCHOOL
- 4= ONE BUT LESS THAN 2 YEARS OF OCCUPATIONAL, TRADE, TECHNICAL, BUSINESS SCHOOL
- 5= 2 YEARS OR MORE OF OCCUPATIONAL, TRADE, BUSINESS SCHOOL
- 6= LESS THAN 2 YEARS OF COLLEGE
- 7= 2 OR MORE YEARS OF COLLEGE, INCLUDING 2-YR DEGREE
- 8= BACHELOR'S DEGREE -4 OR 5 YEAR DEGREE
- 9= MASTER'S DEGREE OR EQUIVALENT
- 10= MD/DDS/LLB/OTHER ADVANCED PROFESSIONAL DEGREE
- 11= DOCTORATE DEGREE -PHD, EDD, DBA

## SHOTPSE

How many of your other family members ever attended a postsecondary school? 0-20= MEMBERS

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# RELIAB\_END



# Appendix E Training Material



# Appendix E

# **Training Material**

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NPSAS:96 METHODOLOGY REPORT: APPENDIX E

# NPSAS:96 TELEPHONE INTERVIEWER TRAINING AGENDA

# Session 1 (240 minutes)

Topic 1 (Lead Trainer)	Welcome and Introduction to NPSAS:96 - Background and purpose of NPSAS:96 - What data are used for - NPSAS project overview - What is financial aid?	35 minutes
Topic 2 (Lead Trainer)	Overview of the Training Session - Training agenda and rules	15 minutes
Topic 3 (Lead Trainer & Assistant)	Demonstration Interviews  - Student - Parent	70 minutes
BREAK		10 minutes
Topic 4 (Lead Trainer)	Confidentiality and Informed Consent - Review Signed forms	15 minutes
Topic 5 (Lead Trainer & Assistant)	NPSAS Student Questionnaire  - Concept of Active Listening  Section A	85 minutes
	Section A  - Review of Q x Q's  - Review "user exits" screens  - Small Group Mock #1 of Section	
D	The A Discussion and Futm	10 minutes

# Production Sheet Discussion and Entry

10 minutes

# Session 2 (240 Minutes)

Topic 6	NPSAS Student Questionnaire (Continued)	
(Lead Trainer	Sections B-E	
& Assistant)	- Review QxQ's	70 minutes
,	- Review User Exits	45 minutes
	- Small Group Mock #1 of Sections	40 minutes



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APPENUIX E: THAINING MATERIAL			
NPSAS:96	Telephone Interviewer Training Agenda (Continued)		
BREAK		10 minutes	
Topic 7 (Lead Trainer)	Practice User Exits in Student Questionnaire	65 minutes	
Production S	Production Sheet Entry		
Session 3 (24	10 Minutes)		
Topic 8 (Lead Trainer & Assistant)  BREAK	NPSAS Student Questionnaire (Continued) Sections F-End of Questionnaire - Review of QxQ's - Small Group Mock #1 of Sections	70 minutes 50 minutes 10 minutes	
Topic 9 (Lead Trainer)	Explaining the Study and Obtaining Participation  - Lead Letters - Question and Answer sheet	45 minutes	
Topic 10 (Lead Trainer)	NPSAS Front End Module Overview of Contacting/locating procedures - preloaded information - basic algorithms for calling each case - brief explanation of Fastdata role Intro to roster line concept (on data view) QxQ Review - introductory screens - utility screens Examples on Dataview Events and Status Codes	55 minutes	
Production SI	neet Entry	10 minutes	
Session 4 (24)	<u>D minutes)</u>		
Topic 10	NPSAS Front End Module (Continued) Overview of Contacting/locating procedures - preloaded information	45 minutes	



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### NPSAS:96 Telephone Interviewer Training Agenda (Continued)

- basic algorithms for calling each case
- brief explanation of Fastdata role

Intro to roster line concept (on data view)

QxQ Review

- introductory screens
- utility screens

Examples on Dataview
Events and Status Codes

Topic 11 (Lead Trainer)	<ul> <li>Quality Control Measures</li> <li>Monitoring</li> <li>Reporting problems</li> <li>How to use the Electronic Problem Sheet</li> <li>Who to report what types of problems</li> </ul>	15 minutes
Topic 12 (Lead Trainer and Assistant)	Small Group Mock #2 of Student Interview	70 minutes
BREAK		10 minutes
Topic 13 (Lead Trainer)	Parent Interview Review QxQ's	60 minutes
Topic 14 (Lead Trainer & Assistant)	Small Group Mock #3 of Parental Interview	30 minutes
Production S	heet Entry	10 minutes

#### Session 5 (240 Minutes)

Topic 15 (Lead Trainer & Assistant)	More User Exit Practice and Coding	50 minutes
Topic 16	Practice Contacting/Locating/Student Int.	90 minutes
(Lead Trainer & Assistant)	- Small Group Mock #4 of entire NPSAS package	



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#### NPSAS:96 Telephone Interviewer Training Agenda (Continued)

	Training Agenda (Continued)	
BREAK		10 minutes
Topic 17 (Lead Trainer	Practice Contacting/Locating/Student Int	60 minutes
& Assistant)	- Small Group Mock #5	
Topic 18 (Lead Trainer)	Question and Answer Session	20 minutes
Production Sheet Entry 10 minutes		



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#### Field Staff Data Collector Training Agenda

## DAY 0

<del></del>	
9:00 am	Welcome and Introduction  - Meet Project Team Members  - Review Field Supervisor (FS Territories
9:30 am	Review Field Data Collector (FDC) Training  – Discuss FS Roles
10:00 am	Postsecondary Institution Environment
10:30 am	<b>Contacting Coordinators (Checklist)</b>
11:30 am	Lunch
1:00 pm	Mock #5: Eric Npsastestv  - Round-Robin  - Highlight Q x Q Specifications
2:00 pm	Mock #9: José Npsastestix  – Individual
2:00 pm	Field Management System (MS) - Reports
3:00 pm	Break
3:15 pm	FMS - Production, Time and Expense (PT&E)
3:45 pm	FMS - Assignments
4:15 pm	Questions and Answers
4:30 pm	Adjourn



### DAY 1

8:30 am	Overview of Training Objective  - Review Training Materials  - Data Collection Time Line
9:00 am	NPSAS:96 Institutional Contacting
9:30 am	Basic Concepts of Postsecondary Financial Aid Process
10:15 am	Break
10:30 am	CADE - "Basics"  - Software Development  - Sections & Sub-sections  - CADE Tutorial
11:30 am	General FDC Responsibilities  - Confidentiality Agreements  - Contact with Institutional Coordinator
12:00 pm	Lunch
1:00 pm	Introduction to CADE  Case #1 - Rachel Npsastesti  - FDC do not use PC  - FDC locate "files"
2:45 pm	Break
3:00 pm	Case #1 - Rachel (continued)
4:00 pm	Review / Questions Case #1
4:15 pm	Using CADE  - Identify System Menu - Select Institution - Complete Data Entry
5:00 pm	Review Home Study



5:30 pm Adjourn

## DAY 2

8:30 am	Review Case #1
8:45 am	CADE: Section by Section  - Case #10 - Monique
	Registration / Admissions Section: Locating
9:15 am	Registration /Admissions Section: Characteristics
9:45 am	Registration / Admissions Section: Admission Tests
10:15 am	Break
10:30 am	Enrollment / Tuition Section
11:15 am	Financial Aid Section: Financial Aid Awards
12:00 pm	Financial Aid Section: Needs Analysis
12:30 pm	Lunch
1:30	Financial Aid Section: Student Aid Report (SAR)
2:00 pm	Round-Robin  - Case #8 - Max T.
3:15	Break
3:30 pm	Round-Robin  - Case #8 (continued)
4:30 pm	"Packing" Complete Case
5:00 pm	Adjourn



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### DAY 3

8:30 am	Review - Case #10 - Case #8
9:00 am	Key Elements in Student Financial Aid Data
9:30 am	Postsecondary Institution Environment
10:15 am	Break
10:30 am	Contacting Coordinators  - Checklist
11:15am	Item Verification: System Q/C
12:15 pm	Lunch
1:15 pm	Introduction to Field Management System
1:45 pm	Individual Practice  - Case #3 - David J.
2:30 pm	Break
2:45 pm	Case #3 - (continued)
3:45 pm	Review Case #3
4:15 pm	Assignment: "After Hours Practice"  - Transmission of Cases 1, 10, 8, 3  - Receipt of Cases 7, 2, 4, 6
5:00 pm	Adjourn



### DAY 4

**Review Transmission** 8:30 am **Introduction to E-Mail** 9:00 am 10:15 am **Break Round-Robin** 10:30 am - Case #7 - Paul T. 11:45 am **Review** Case #7 12:15 pm Lunch **Individual Practice** 1:15 pm - Case #2 - Role-play IC Call 2:30 pm **Break Review** 2:45 pm Case #2 3:15 pm The Test Case #4 - Liz **Assignment** 4:15 pm - Transmission of Cases #7, 2, 4 Adjourn 4:30 pm



# Appendix F

## **Design Effect Tables**

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### **Statistical Analysis Considerations**

The NPSAS:96 sampling design was a stratified two-stage design. A stratified sample of postsecondary institutions was selected with probabilities proportional to a composite measure of size at the first stage, and a stratified systematic sample of students was selected from sample institutions at the second stage. Moreover, a stratified subsample of students was selected for computer-assisted telephone interviewing (CATI). At the first stage, about ten percent of the eligible institutions were selected, but the institution sampling rates varied considerably by institutional level and control. At the second stage, potential first-time, beginning (FTB) students were oversampled. Moreover, FTBs were retained for CATI with certainty, while about half of all other students were retained, and higher sampling rates were used for students whose CADE data indicated that they were financial aid applicants. Because of this complex sampling design, it is important that statistical analyses be conducted using software that properly accounts for the complex survey sampling design.

Most commonly-used statistical computing packages (e.g., SAS and SPSS) assume that the data were obtained from a simple random sample; that is, they assume that the observations are independent and identically distributed. When data have been collected using a complex sampling design, the simple random sampling assumption can lead to an underestimate of the sampling variance, which can therefore lead to artificially small confidence intervals and anticonservative hypothesis tests results (i.e., rejecting the null hypothesis when it is in fact true more often than indicated by the nominal Type I error level) (Carlson et al, 1993).

Statistical strategies that have been developed to address this issue include: first-order Taylor series expansion of the variance equation; balanced repeated replication; and the Jackknife approach (see, e.g., Wolter, 1985). Special-purpose software packages that have been developed for analysis of complex sample survey data include SUDAAN and WesVarPC. Recently, the statistical software package Stata has added features for analysis of complex survey data. Evaluations of the relative performances of these packages are reported by Cohen (1997). SUDAAN is a commercial product developed by Research Triangle Institute; information regarding the features of this package and its lease terms is available from the Web site <a href="http://www.rti.org/patents/sudaan/sudaan.html">http://www.rti.org/patents/sudaan/sudaan.html</a>. WesVarPC is a product of Westat, Inc. and can be downloaded from the Web site <a href="http://www.westat.com/wesvarpc/index.html">http://www.westat.com/wesvarpc/index.html</a>. NCES also has developed a software tool called the Data Analysis System (DAS) for analysis of complex survey data. Information about using the DAS is available from the Web site <a href="http://www.pedar-das.org">http://www.pedar-das.org</a>. This site includes links to many NCES DAS files, including the NPSAS DAS files.

<sup>&</sup>lt;sup>1</sup> From about 3 percent for private, for-profit, less-than-2-year institutions to about 51 percent for public, 4-year, doctoral/first-professional-granting institutions.



If one must perform a quick analysis of NPSAS:96 data without using one of the software packages for analysis of complex survey data, the design effect tables in this appendix can be used to make approximate adjustments to the standard errors of survey statistics computed using the standard software packages that assume simple random sampling designs. For example, Table F.9 shows design effects based on the study weights for undergraduate students at public, 4-year, doctoral/first-professional institutions. If one had computed a statistic (e.g., mean Pell grant) for this domain of students using the study weights, then the summary statistics from Table F.9 suggest that the standard error computed from the standard statistical software package should be multiplied by a survey design effect of about 3.64 (the median for this domain). However, the range of design effects shown in Table F.9 for this domain is from 2.28 to 7.87. Therefore, one cannot be confident regarding the actual design-based standard error without performing the analysis using one of the software packages specifically designed for analysis of data from complex sample surveys.

#### References

Carlson, B.L., Johnson, A.E., and Cohen, S.B. (1993). "An Evaluation of the Use of Personal Computers for Variance Estimation with Complex Survey Data." *Journal of Official Statistics*, Vol. 9, No. 4, pp. 795-814.

Cohen, S.B. (1997). "An Evaluation of Alternative PC-Based Software Packages Developed for the Analysis of Complex Survey Data." *The American Statistician*, Vol. 51, No. 3, pp. 285-292.

Wolter, K. (1985). Introduction to Variance Estimation, Springer-Verlag: New York, NY.



# **DESIGN EFFECT TABLES**

#### **Section A**

Design effect tables for undergraduate students based on the study weights



Table F.1—Design effects based on the study weights for all undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	49.67	0.73	0.25	41,482	2.98	8.86
Received any federal aid	36.58	0.70	0.24	41,482	2.97	8.80
Received any non-federal aid	32.00	0.65	0.23	41,482	2.84	8.09
Received any state grant aid	12.71	0.49	0.16	41,482	3.02	9.14
Received any institution grant aid	11.68	0.47	0.16	41,482	2.99	8.95
Received any aid from other sources	12.36	0.39	0.16	41,482	2.40	5.74
Received any grant aid	38.94	0.69	0.24	41,482	2.86	8.21
Received any loan aid	25.60	0.57	0.21	41,482	2.64	6.96
Received any work-study aid	5.03	0.27	0.11	41,482	2.49	6.22
Received any other type of aid	7.58	0.33	0.13	41,482	2.55	6.50
Received a Pell grant	21.61	0.60	0.20	41,482	2.97	8.84
Received a Stafford loan	24.66	0.55	0.21	41,482	2.61	6.83
Received a subsidized loan	21.66	0.50	0.20	41,482	2.48	6.14
Received an unsubsidized loan	10.01	0.32	0.15	41,482	2.15	4.63
Received grant aid only	18.84	0.57	0.19	41,482	2.97	8.80
Married	20.95	0.57	0.20	41,482	2.88	8.27
U.S. citizen	95.12	0.33	0.11	41,482	3.12	9.74
U.S. Armed Forces veteran	4.97	0.27	0.11	39,536	2.43	5.88
Enrolled exclusively full-time	44.95	0.83	0.25	40,838	3.38	11.46
Lived on campus	20.61	0.56	0.20	41,482	2.83	8.03
SUMMARY STATISTICS						
Minimum					2.15	4.63
25 <sup>th</sup> percentile					2.52	6.36
Median					2.84	8.06
75 <sup>th</sup> percentile					2.98	8.85
Maximum					3.38	11.46



Table F.2—Design Effects based on the study weights for male undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF	
Received any aid	46.72	0.95	0.37	17,714	2.54	6.48	
Received any federal aid	33.11	0.83	0.35	17,714	2.35	5.51	
Received any non-federal aid	31.37	0.83	0.35	17,714	2.39	5.72	
Received any state grant aid	11.16	0.52	0.24	17,714	2.21	4.86	
Received any institution grant aid	11.45	0.56	0.24	17,714	2.33	5.45	l
Received any aid from other sources	13.55	0.58	0.26	17,714	2.24	5.03	
Received any grant aid	35.70	0.84	0.36	17,714	2.34	5.49	
Received any loan aid	24.40	0.73	0.32	17,714	2.25	5.05	
Received any work-study aid	4.32	0.29	0.15	17,714	1.91	3.63	
Received any other type of aid	8.94	0.45	0.21	17,714	2.10	4.43	
Received a Pell grant	17.88	0.63	0.29	17,714	2.18	4.74	
Received a Stafford loan	23.46	0.70	0.32	17,714	2.19	4.81	
Received a subsidized loan	20.36	0.64	0.30	17,714	2.11	4.46	
Received an unsubsidized loan	9.68	0.41	0.22	17,714	1.85	3.43	
Received grant aid only	16.73	0.67	0.28	17,714	2.40	5.77	
Married	18.29	0.73	0.29	17,714	2.52	6.37	
U.S. citizen	94.84	0.38	0.17	17,714	2.27	5.14	
U.S. Armed Forces veteran	9.82	0.51	0.23	16,743	2.22	4.92	
Enrolled exclusively full-time	47.33	1.02	0.38	17,486	2.69	7.23	
Lived on campus	21.60	0.69	0.31	17,714	2.22	4.94	
SUMMARY STATISTICS							
Minimum					1.85	3.43	
25th percentile					2.19	4.78	
Median	ļ				2.25	5.04	
75th percentile					2.37	5.61	
Maximum					2.69	7.23	

Table F.3—Design effects based on the study weights for female undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	51.91	0.86	0.32	23,768	2.67	7.10
Received any federal aid	39.22	0.84	0.32	23,768	2.66	7.08
Received any non-federal aid	32.47	0.74	0.30	23,768	2.45	6.01
Received any state grant aid	13.89	0.59	0.22	23,768	2.63	6.92
Received any institution grant aid	11.86	0.53	0.21	23,768	2.52	6.34
Received any aid from other sources	11.45	0.43	0.21	23,768	2.07	4.28
Received any grant aid	41.40	0.82	0.32	23,768	2.57	6.60
Received any loan aid	26.51	0.66	0.29	23,768	2.32	5.37
Received any work-study aid	5.56	0.31	0.15	23,768	2.09	4.39
Received any other type of aid	6.54	0.35	0.16	23,768	2.16	4.68
Received a Pell grant	24.45	0.75	0.28	23,768	2.67	7.14
Received a Stafford loan	25.58	0.65	0.28	23,768	2.31	5.35
Received a subsidized loan	22.64	0.61	0.27	23,768	2.23	4.97
Received an unsubsidized loan	10.26	0.37	0.20	23,768	1.90	3.60
Received grant aid only	20.44	0.72	0.26	23,768	2.74	7.52
Married	22.98	0.68	0.27	23,768	2.50	6.23
U.S. citizen	95.33	0.42	0.14	23,768	3.07	9.42
U.S. Armed Forces veteran	1.34	0.17	0.08	22,793	2.25	5.06
Enrolled exclusively full-time	43.13	0.91	0.32	23,352	2.82	7.94
Lived on campus	19.86	0.68	0.26	23,768	2.61	6.81
SUMMARY STATISTICS						
Minimum					1.90	3.60
25th percentile					2.24	5.01
Median					2.48	6.17
75 <sup>th</sup> percentile					2.66	7.09
Maximum					3.07	9.42

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Table F.4— Design effects based on the study weights for students at less-than-2-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	63.21	4.13	0.78	3,831	5.31	28.15
Received any federal aid	52.18	4.17	0.81	3,831	5.16	26.64
Received any non-federal aid	25.66	3.23	0.71	3,831	4.58	20.99
Received any state grant aid	6.69	2.35	0.40	3,831	5.81	33.80
Received any institution grant aid	5.23	1.58	0.36	3,831	4.39	19.29
Received any aid from other sources	9.23	1.38	0.47	3,831	2.95	8.70
Received any grant aid	46.67	3.73	0.81	3,831	4.63	21.42
Received any loan aid	37.16	4.27	0.78	3,831	5.47	29.89
Received any work-study aid	0.12	0.06	0.06	3,831	1.06	1.13
Received any other type of aid	11.56	1.60	0.52	3,831	3.11	9.64
Received a Pell grant	39.07	3.61	0.79	3,831	4.58	20.97
Received a Stafford loan	34.65	4.15	0.77	3,831	5.40	29.16
Received a subsidized loan	33.32	4.02	0.76	3,831	5.28	27.89
Received an unsubsidized loan	21.07	3.25	0.66	3,831	4.94	24.40
Received grant aid only	19.24	3.01	0.64	3,831	4.73	22.34
Married	28.97	1.30	0.73	3,831	1.78	3.15
U.S. citizen	93.38	1.12	0.40	3,831	2.78	7.75
U.S. Armed Forces veteran	7.52	1.20	0.44	3,517	2.69	7.26
Enrolled exclusively full-time	79.80	2.73	0.66	3,711	4.14	17.10
Lived on campus	2.13	0.41	0.23	3,831	1.74	3.04
SUMMARY STATISTICS						
Minimum					1.06	1.13
25 <sup>th</sup> percentile	j				2.87	8.23
Median					4.58	20.98
75 <sup>th</sup> percentile					5.22	27.27
Maximum					5.81	33.80

Table F.5— Design effects based on the study weights for undergraduate students at public, 2-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	35.20	1.28	0.61	6,167	2.11	4.45
Received any federal aid	22.10	1.12	0.53	6,167	2.12	4.50
Received any non-federal aid	22.86	1.13	0.53	6,167	2.11	4.44
Received any state grant aid	8.52	0.82	0.36	6,167	2.31	5.33
Received any institution grant aid	3.91	0.62	0.25	6,167	2.50	6.27
Received any aid from other sources	10.91	0.73	0.40	6,167	1.83	3.35
Received any grant aid	28.86	1.21	0.58	6,167	2.09	4.37
Received any loan aid	8.56	0.66	0.36	6,167	1.85	3.41
Received any work-study aid	1.54	0.29	0.16	6,167	1.86	3.47
Received any other type of aid	5.03	0.57	0.28	6,167	2.05	4.20
Received a Pell grant	16.56	1.04	0.47	6,167	2.20	4.85
Received a Stafford loan	8.06	0.62	0.35	6,167	1.80	3.23
Received a subsidized loan	6.86	0.56	0.32	6,167	1.74	3.04
Received an unsubsidized loan	3.39	0.32	0.23	6,167	1.41	1.97
Received grant aid only	21.35	1.07	0.52	6,167	2.05	4.20
Married	25.97	1.08	0.56	6,167	1.93	3.71
U.S. citizen	95.19	0.64	0.27	6,167	2.37	5.60
U.S. Armed Forces veteran	5.92	0.51	0.31	5,788	1.66	2.75
Enrolled exclusively full-time	25.62	1.26	0.56	6,045	2.25	5.05
Lived on campus	12.25	0.69	0.42	6,167	1.65	2.71
SUMMARY STATISTICS						
Minimum					1.41	1.97
25th percentile					1.81	3.29
Median					2.05	4.20
75th percentile					2.16	4.67
Maximum					2.50	6.27



Table F.6— Design effects based on the study weights for undergraduate students at 4-year, non-doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample	DEN	
Received any aid	63.67	1.06	0.43	Size	DEFT	DEFF
Received any federal aid	49.61	1.22	0.45	12,559	2.48	6.15
Received any non-federal aid	45.27	1.22		12,559	2.73	7.46
Received any state grant aid	20.78		0.44	12,559	2.76	7.64
Received any institution grant aid		1.06	0.36	12,559	2.94	8.62
Received any aid from other sources	21.91	1.32	0.37	12,559	3.58	12.80
Received any grant aid	15.12	0.66	0.32	12,559	2.06	4.23
Received any loan aid	51.24	1.13	0.45	12,559	2.53	6.42
·	40.09	1.23	0.44	12,559	2.82	7.95
Received any work-study aid	10.86	0.84	0.28	12,559	3.02	9.11
Received any other type of aid	9.19	0.61	0.26	12,559	2.38	5.67
Received a Pell grant	25.86	1.05	0.39	12,559	2.70	7.28
Received a Stafford loan	38.83	1.22	0.43	12,559	2.80	7.82
Received a subsidized loan	34.36	1.08	0.42	12,559	2.54	6.44
Received an unsubsidized loan	13.38	0.65	0.30	12,559	2.14	4.57
Received grant aid only	17.98	0.90	0.34	12,559	2.63	6.93
Married	18.52	1.00	0.35	12,559	2.87	8.24
U.S. citizen	96.01	0.40	0.17	12,559	2.30	5.30
U.S. Armed Forces veteran	4.15	0.39	0.18	12,175	2.13	4.54
Enrolled exclusively full-time	57.35	1.48	0.44	12,416	3.34	11.13
Lived on campus	29.39	1.51	0.41	12,559	3.72	13.82
SUMMARY STATISTICS						,
Minimum					2.06	4.23
25th percentile					2.43	5.91
Median					2.66	7.10
75th percentile					2.88	8.28
Maximum					3.72	13.82

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Table F.7— Design effects based on the study weights for undergraduate students at 4-year, doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	57.95	0.83	0.41	14,284	2.01	4.03
Received any federal aid	44.60	0.80	0.42	14,284	1.91	3.67
Received any non-federal aid	38.51	0.89	0.41	14,284	2.17	4.73
Received any state grant aid	14.41	0.74	0.29	14,284	2.53	6.39
Received any institution grant aid	18.77	0.74	0.33	14,284	2.27	5.17
Received any aid from other sources	13.35	0.47	0.28	14,284	1.65	2.73
Received any grant aid	43.18	0.79	0.41	14,284	1.90	3.61
Received any loan aid	38.35	0.83	0.41	14,284	2.04	4.15
Received any work-study aid	7.82	0.50	0.22	14,284	2.24	5.03
Received any other type of aid	9.46	0.49	0.24	14,284	2.00	4.01
Received a Pell grant	21.00	0.72	0.34	14,284	2.10	4.42
Received a Stafford loan	37.15	0.83	0.40	14,284	2.05	4.19
Received a subsidized loan	32.12	0.77	0.39	14,284	1.98	3.90
Received an unsubsidized loan	14.18	0.52	0.29	14,284	1.80	3.23
Received grant aid only	15.00	0.59	0.30	14,284	1.98	3.94
Married	11.58	0.65	0.27	14,284	2.43	5.91
U.S. citizen	94.81	0.39	0.19	14,284	2.09	4.37
U.S. Armed Forces veteran	3.00	0.26	0.15	13,609	1.81	3.26
Enrolled exclusively full-time	60.72	1.23	0.41	14,157	3.01	9.04
Lived on campus	34.09	1.05	0.40	14,284	2.65	7.04
SUMMARY STATISTICS				:		
Minimum					1.65	2,73
25th percentile					1.95	3.79
Median					2.04	4.17
75 <sup>th</sup> percentile			:		2.26	5.10
Maximum					3.01	9.04

Table F.8— Design effects based on the study weights for undergraduate students at public, 4-year, non-doctoral/first-professional institutions

	Percent	Design	SRS	Sample		
	Estimate	Std. Err.	Std. Err.	Size	DEFT	DEFF
Received any aid	55.76	1.28	0.58	7,451	2.22	4.95
Received any federal aid	45.38	1.30	0.58	7,451	2.25	5.04
Received any non-federal aid	33.94	1.21	0.55	7,451	2.21	4.90
Received any state grant aid	18.04	1.17	0.45	7,451	2.62	6.89
Received any institution grant aid	7.06	0.69	0.30	7,451	2.33	5.44
Received any aid from other sources	11.64	0.61	0.37	7,451	1.65	2.74
Received any grant aid	41.33	1.16	0.57	7,451	2.04	4.15
Received any loan aid	34.81	1.37	0.55	7,451	2.48	6.16
Received any work-study aid	5.74	0.59	0.27	7,451	2.21	4.87
Received any other type of aid	7.01	0.51	0.30	7,451	1.71	2.93
Received a Pell grant	26.08	1.16	0.51	7,451	2.28	5.19
Received a Stafford loan	33.61	1.34	0.55	7,451	2.46	6.04
Received a subsidized loan	29.34	1.15	0.53	7,451	2.19	4.79
Received an unsubsidized loan	12.06	0:69	0.38	7,451	1.84	3.39
Received grant aid only	16.33	1.02	0.43	7,451	2.38	5.66
Married	18.88	1.11	0.45	7,451	2.44	5.95
U.S. citizen	95.21	0.61	0.25	7,451	2.47	6.08
U.S. Armed Forces veteran	4.17	0.37	0.24	7,235	1.56	2.43
Enrolled exclusively full-time	53.52	1.70	0.58	7,368	2.93	8.58
Lived on campus	24.81	1.33	0.50	7,451	2.65	7.04
SUMMARY STATISTICS						
Minimum					1.56	2.43
25th percentile					2.05	4.22
Median					2.23	5.00
75 <sup>th</sup> percentile					2.46	6.06
Maximum					2.93	8.58

Table F.9—Design effects based on the study weights for undergraduate students at public, 4-year, doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	55.94	1.00	0.54	8,596	1.88	3.52
Received any federal aid	43.82	0.94	0.54	8,596	1.76	3.11
Received any non-federal aid	34.21	1.05	0.51	8,596	2.05	4.19
Received any state grant aid	13.79	0.87	0.37	8,596	2.33	5.41
Received any institution grant aid	13.19	0.78	0.37	8,596	2.15	4.62
Received any aid from other sources	12.25	0.53	0.35	8,596	1.51	2.28
Received any grant aid	39.91	0.94	0.53	8,596	1.77	3.14
Received any loan aid	37.30	0.99	0.52	8,596	1.89	3.58
Received any work-study aid	5.39	0.54	0.24	8,596	2.22	4.94
Received any other type of aid	8.85	0.60	0.31	8,596	1.96	3.83
Received a Pell grant	22.04	0.86	0.45	8,596	1.92	3.68
Received a Stafford loan	36.29	0.98	0.52	8,596	1.90	3.60
Received a subsidized loan	30.93	0.92	0.50	8,596	1.84	3.37
Received an unsubsidized loan	14.82	0.64	0.38	8,596	1.66	2.77
Received grant aid only	14.28	0.70	0.38	8,596	1.85	3.42
Married	11.49	0.78	0.34	8,596	2.26	5.12
U.S. citizen	95.34	0.45	0.23	8,596	1.98	3.91
U.S. Armed Forces veteran	3:31	0.33	0.20	8,199	1.67	2.78
Enrolled exclusively full-time	59.19	1.49	0.53	8,532	2.80	7.87
Lived on campus	33.65	1.23	0.51	8,596	2.42	5.85
SUMMARY STATISTICS						
Minimum					1.51	2.28
25th percentile					1.80	3.26
Median					1.91	3.64
75 <sup>th</sup> percentile				!	2.14	4.60
Maximum					2.80	7.87

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Table F.10—Design effects based on the study weights for undergraduate students at private, not-for-profit, 4-year, non-doctoral/first-professional institutions

	Percent	Design	SRS	S1-		<u> </u>
A Secretary Secretary	Estimate	Std. Err.	Std. Err.	Sample Size	DEFT	DEFF
Received any aid	74.32	1.64	0.61	5,108	2.68	7.16
Received any federal aid	55.31	2.26	0.70	5,108	3.24	10.52
Received any non-federal aid	60.51	2.20	0.68	5,108	3.22	10.34
Received any state grant aid	24.47	1.95	0.60	5,108	3.23	10.46
Received any institution grant aid	41.88	2.69	0.69	5,108	3.89	15.16
Received any aid from other sources	19.81	1.26	0.56	5,108	2.27	5.13
Received any grant aid	64.59	1.97	0.67	5,108	2.94	8.66
Received any loan aid	47.19	2.22	0.70	5,108	3.17	10.07
Received any work-study aid	17.76	1.75	0.53	5,108	3.27	10.72
Received any other type of aid	12.11	1.24	0.46	5,108	2.72	7.41
Received a Pell grant	25.57	1.91	0.61	5,108	3.13	9.82
Received a Stafford loan	45.86	2.19	0.70	5,108	3.15	9.91
Received a subsidized loan	41.10	1.99	0.69	5,108	2.90	8.38
Received an unsubsidized loan	15.16	1.21	0.50	5,108	2.40	5.77
Received grant aid only	20.21	1.59	0.56	5,108	2.82	7.97
Married	18.04	1.81	0.54	5,108	3.36	11.26
U.S. citizen	97.08	0.48	0.24	5,108	2.02	4.10
U.S. Armed Forces veteran	4.12	0.77	0.28	4,940	2.70	7.31
Enrolled exclusively full-time	62.53	2.57	0.68	5,048	3.77	14.22
Lived on campus	35.56	2.98	0.67	5,108	4.45	19.84
SUMMARY STATISTICS				-		
Minimum					2.02	4.10
25th percentile					2.71	7.36
Median					3.11	9.65
75 <sup>th</sup> percentile				į	3.24	10.49
Maximum					4.45	19.84

Table F.11—Design effects based on the study weights for undergraduate students at private, not-for-profit, 4-year, doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	65.01	1.31	0.63	5,688	2.07	4.27
Received any federal aid	47.31	1.43	0.66	5,688	2.16	4.66
Received any non-federal aid	53.59	1.58	0.66	5,688	2.39	5.69
Received any state grant aid	16.57	1.43	0.49	5,688	2.90	8.42
Received any institution grant aid	38.33	1.73	0.64	5,688	2.69	7.21
Received any aid from other sources	17.21	0.98	0.50	5,688	1.95	3.80
Received any grant aid	54.63	1.39	0.66	5,688	2.10	4.42
Received any loan aid	42.02	1.44	0.65	5,688	2.20	4.84
Received any work-study aid	16.33	1.21	0.49	5,688	2.47	6.08
Received any other type of aid	11.63	0.70	0.43	5,688	1.64	2.69
Received a Pell grant	17.36	1.11	0.50	5,688	2.22	4.93
Received a Stafford loan	40.16	1.44	0.65	5,688	2.22	4.92
Received a subsidized loan	36.33	1.36	0.64	5,688	2.13	4.52
Received an unsubsidized loan	11.93	0.76	0.43	5,688	1.78	3.16
Received grant aid only	17.53	1.06	0.50	5,688	2.11	4.44
Married	11.93	1.07	0.43	5,688	2.49	6.20
U.S. citizen	92.93	0.74	0.34	5,688	2.19	4.77
U.S. Armed Forces veteran	1.92	0.27	0.19	5,410	1.46	2.13
Enrolled exclusively full-time	66.09	1.98	0.63	5,625	3.13	9.80
Lived on campus	35.67	1.97	0.64	5,688	3.10	9.60
SUMMARY STATISTICS						
Minimum					1.46	2.13
25 <sup>th</sup> percentile					2.08	4.35
Median					2.19	4.81
75th percentile					2.43	5.91
Maximum					3.13	9.80

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Table F.12—Design effects based on the study weights for undergraduate students at private, for-profit institutions

	Percent	Design	SRS	Sample		<u> </u>
	Estimate	Std. Err.	Std. Err.	Size	DEFT	DEFF
Received any aid	77.73	2.37	0.57	5,380	4.19	17.52
Received any federal aid	70.65	2.68	0.62	5,380	4.31	18.57
Received any non-federal aid	26.96	2.53	0.60	5,380	4.18	17.47
Received any state grant aid	9.07	1.95	0.39	5,380	4.99	24.88
Received any institution grant aid	5.20	1.29	0.30	5,380	4.26	18.11
Received any aid from other sources	9.82	1.08	0.41	5,380	2.67	7.12
Received any grant aid	55.90	2.60	0.68	5,380	3.84	14.76
Received any loan aid	55.86	3.24	0.68	5,380	4.79	22.92
Received any work-study aid	0.43	0.12	0.09	5,380	1.34	1.79
Received any other type of aid	12.70	1.24	0.45	5,380	2.73	7.48
Received a Pell grant	48.50	2.68	0.68	5,380	3.93	15.42
Received a Stafford loan	53.54	3.21	0.68	5,380	4.71	22.22
Received a subsidized loan	49.87	3.11	0.68	5,380	4.56	20.77
Received an unsubsidized loan	32.35	2.70	0.64	5,380	4.23	17.90
Received grant aid only	16.92	2.41	0.51	5,380	4.72	22.30
Married	25.33	1.19	0.59	5,380	2.01	4.04
U.S. citizen	92.73	1.21	0.35	5,380	3.41	11.62
U.S. Armed Forces veteran	6.78	0.69	0.35	5,187	1.97	3.89
Enrolled exclusively full-time	75.96	2.43	0.59	5,229	4.11	16.87
Lived on campus	2.61	0.71	0.22	5,380	3.26	10.64
SUMMARY STATISTICS						
Minimum					1.34	1.79
25 <sup>th</sup> percentile					3.00	9.06
Median		ļ			4.14	17.17
75 <sup>th</sup> percentile					4.43	19.67
Maximum					4.99	24.88

Table F.13—Design effects based on the study weights for dependent undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	50.85	0.84	0.32	24,217	2.62	6.86
Received any federal aid	39.14	0.76	0.31	24,217	2.41	5.80
Received any non-federal aid	33.36	0.79	0.30	24,217	2.60	6.76
Received any state grant aid	14.15	0.55	0.22	24,217	2.45	6.00
Received any institution grant aid	17.82	0.71	0.25	24,217	2.87	8.23
Received any aid from other sources	9.27	0.35	0.19	24,217	1.87	3.51
Received any grant aid	38.74	0.80	0.31	24,217	2.57	6.59
Received any loan aid	30.49	0.68	0.30	24,217	2.31	5.33
Received any work-study aid	7.85	0.43	0.17	24,217	2.47	6.09
Received any other type of aid	7.91	0.34	0.17	24,217	1.95	3.82
Received a Pell grant	18.45	0.61	0.25	24,217	2.43	5.90
Received a Stafford loan	29.41	0.67	0.29	24,217	2.29	5.25
Received a subsidized loan	24.60	0.59	0.28	24,217	2.13	4.56
Received an unsubsidized loan	9.29	0.33	0.19	24,217	1.78	3.18
Received grant aid only	16.13	0.58	0.24	24,217	2.45	5.99
Married	0.00	0.00	0.00	24,217	_a	_a
U.S. citizen	95.31	0.31	0.14	24,217	2.27	5.13
U.S. Armed Forces veteran	0.00	0.00	0.00	23,366	_a	_a
Enrolled exclusively full-time	61.37	0.90	0.31	23,946	2.85	8.11
Lived on campus	39.55	0.87	0.31	24,217	2.76	7.62
SUMMARY STATISTICS						
Minimum					1.78	3.18
25 <sup>th</sup> percentile					2.27	5.13
Median					2.44	5.94
75 <sup>th</sup> percentile			:		2.60	6.76
Maximum					2.87	8.23

The design effect is undefined because the estimate is 0.00.

Table F.14—Design effects based on the study weights for independent undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	48.52	1.00	0.38	17,265	2.62	6.88
Received any federal aid	34.10	0.92	0.36	17,265	2.56	6.55
Received any non-federal aid	30.68	0.86	0.35	17,265	2.46	6.06
Received any state grant aid	11.33	0.65	0.24	17,265	2.69	7.23
Received any institution grant aid	5.75	0.42	0.18	17,265	2.39	5.73
Received any aid from other sources	15.34	0.64	0.27	17,265	2.32	5.36
Received any grant aid	39.14	0.91	0.37	17,265	2.44	5.96
Received any loan aid	20.87	0.67	0.31	17,265	2.16	4.65
Received any work-study aid	2.30	0.21	0.11	17,265	1.80	3.23
Received any other type of aid	7.26	0.47	0.20	17,265	2.40	5.75
Received a Pell grant	24.67	0.81	0.33	17,265	2.47	6.12
Received a Stafford loan	20.07	0.65	0.30	17,265	2.14	4.60
Received a subsidized loan	18.81	0.63	0.30	17,265	2.11	4.46
Received an unsubsidized loan	10.71	0.49	0.24	17,265	2.06	4.26
Received grant aid only	21.46	0.79	0.31	17,265	2.54	6.46
Married	41.22	0.91	0.37	17,265	2.44	5.94
U.S. citizen	94.94	0.45	0.17	17,265	2.69	7.22
U.S. Armed Forces veteran	9.95	0.50	0.24	16,170	2.14	4.59
Enrolled exclusively full-time	28.99	0.91	0.35	16,892	2.61	6.82
Lived on campus	2.29	0.18	0.11	17,265	1.57	2.46
SUMMARY STATISTICS						
Minimum					1.57	2.46
25 <sup>th</sup> percentile					2.14	4.60
Median	]				2.42	5.86
75th percentile					2.55	6.50
Maximum					2.69	7.23

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Table F.15—Design effects based on the study weights for white, non-hispanic undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	47.05	0.81	0.30	28,449	2.75	7.55
Received any federal aid	33.13	0.72	0.28	28,449	2.60	6.74
Received any non-federal aid	31.13	0.73	0.27	28,449	2.67	7.12
Received any state grant aid	11.13	0.46	0.19	28,449	2.44	5.96
Received any institution grant aid	12.18	0.57	0.19	28,449	2.95	8.69
Received any aid from other sources	13.04	0.40	0.20	28,449	2.02	4.10
Received any grant aid	35.37	0.74	0.28	28,449	2.60	6.75
Received any loan aid	25.53	0.64	0.26	28,449	2.46	6.04
Received any work-study aid	4.62	0.29	0.12	28,449	2.35	5.53
Received any other type of aid	7.61	0.35	0.16	28,449	2.24	5.04
Received a Pell grant	16.28	0.52	0.22	28,449	2.36	5.59
Received a Stafford loan	24.81	0.62	0.26	28,449	2.43	5.91
Received a subsidized loan	21.34	0.56	0.24	28,449	2.31	5.31
Received an unsubsidized loan	10.59	0.35	0.18	28,449	1.92	3.70
Received grant aid only	16.80	0.57	0.22	28,449	2.56	6.54
Married	22.64	0.65	0.25	28,449	2.62	6.85
U.S. citizen	98.67	0.13	0.07	28,449	1.94	3.76
U.S. Armed Forces veteran	4.81	0.29	0.13	27,162	2.25	5.06
Enrolled exclusively full-time	44.73	0.93	0.30	28,153	3.14	9.88
Lived on campus	22.29	0.64	0.25	28,449	2.59	6.73
SUMMARY STATISTICS						
Minimum					1.92	3.70
25th percentile					2.28	5.19
Median					2.45	6.00
75 <sup>th</sup> percentile					2.60	6.74
Maximum					3.14	9.88

Table F.16—Design effects based on the study weights for black, non-Hispanic undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	62.95	1.87	0.67	5,264	2.81	7.88
Received any federal aid	49.99	1.75	0.69	5,264	2.55	6.48
Received any non-federal aid	38.28	1.60	0.67	5,264	2.39	5.73
Received any state grant aid	16.34	1.23	0.51	5,264	2.41	5.81
Received any institution grant aid	11.93	1.08	0.45	5,264	2.43	5.89
Received any aid from other sources	14.03	1.03	0.48	5,264	2.15	4.62
Received any grant aid	52.73	1.66	0.69	5,264	2.42	5.85
Received any loan aid	30.94	1.73	0.64	5,264	2.71	7.33
Received any work-study aid	6.05	0.62	0.33	5,264	1.89	3.59
Received any other type of aid	9.99	0.87	0.41	5,264	2.09	4.38
Received a Pell grant	37.90	1.52	0.67	5,264	2.28	5.19
Received a Stafford loan	29.77	1.69	0.63	5,264	2.68	7.16
Received a subsidized loan	27.64	1.59	0.62	5,264	2.58	6.65
Received an unsubsidized loan	11.33	0.87	0.44	5,264	2.00	3.99
Received grant aid only	24.46	1.46	0.59	5,264	2.47	6.10
Married	16.16	1.13	0.51	5,264	2.22	4.92
U.S. citizen	94.91	0.70	0.30	5,264	2.32	5.37
U.S. Armed Forces veteran	7.77	0.73	0.38	5,031	1.94	3.77
Enrolled exclusively full-time	43.72	1.84	0.69	5,138	2.67	7.11
Lived on campus	17.67	1.24	0.53	5,264	2.35	5.52
SUMMARY STATISTICS						
Minimum					1.89	3.59
25 <sup>th</sup> percentile					2.19	4.80
Median					2.40	5.77
75th percentile					2.56	6.57
Maximum					2.81	7.88

Table F.17—Design effects based on the study weights for Asian/Pacific Islander undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	42.88	1.94	0.97	2,612	2.00	4.00
Received any federal aid	33.08	1.69	0.92	2,612	1.84	3.38
Received any non-federal aid	30.77	1.79	0.90	2,612	1.99	3.95
Received any state grant aid	15.04	1.43	0.70	2,612	2.04	4.17
Received any institution grant aid	12.68	1.18	0.65	2,612	1.82	3.30
Received any aid from other sources	7.71	0.92	0.52	2,612	1.77	3.14
Received any grant aid	35.68	1.78	0.94	2,612	1.90	3.61
Received any loan aid	21.20	1.42	0.80	2,612	1.77	3.15
Received any work-study aid	6.57	0.72	0.48	2,612	1.50	2.24
Received any other type of aid	5.73	0.73	0.45	2,612	1.60	2.55
Received a Pell grant	22.63	1.37	0.82	2,612	1.68	2.81
Received a Stafford loan	19.69	1.32	0.78	2,612	1.69	2.86
Received a subsidized loan	18.07	1.25	0.75	2,612	1.65	2.74
Received an unsubsidized loan	5.28	0.57	0.44	2,612	1.29	1.67
Received grant aid only	16.49	1.54	0.73	2,612	2.12	4.49
Married	15.79	1.78	0.71	2,612	2.49	6.19
U.S. citizen	66.04	1.87	0.93	2,612	2.01	4.05
U.S. Armed Forces veteran	2.80	0.67	0.33	2,427	2.00	4.00
Enrolled exclusively full-time	49.09	2.12	0.99	2,571	2.15	4.63
Lived on campus	21.05	1.62	0.80	2,612	2.03	4.12
SUMMARY STATISTICS	-					
Minimum					1.29	1.67
25th percentile					1.68	2.84
Median					1.87	3.49
75th percentile					2.02	4.09
Maximum					2.65	7.04

Table F.18—Design effects based on the study weights for Hispanic undergraduate students

	Percent	Design	SRS	Sample	<del></del>	
A CONTRACT OF THE SECOND	Estimate	Std. Err.	Std. Err.	Size	DEFT	DEFF
Received any aid	54.16	2.06	0.75	4,424	2.75	7.59
Received any federal aid	44.61	2.14	0.75	4,424	2.86	8.16
Received any non-federal aid	30.60	1.68	0.69	4,424	2.42	5.88
Received any state grant aid	17.59	1.50	0.57	4,424	2.61	6.83
Received any institution grant aid	7.83	0.75	0.40	4,424	1.86	3.44
Received any aid from other sources	8.29	0.87	0.41	4,424	2.10	4.41
Received any grant aid	47.30	2.04	0.75	4,424	2.72	7.41
Received any loan aid	22.32	1.55	0.63	4,424	2.48	6.15
Received any work-study aid	5.78	0.85	0.35	4,424	2.42	5.87
Received any other type of aid	5.22	0.58	0.33	4,424	1.74	3.02
Received a Pell grant	35.91	2.11	0.72	4,424	2.92	8.53
Received a Stafford loan	20.56	1.41	0.61	4,424	2.33	5.42
Received a subsidized loan	18.75	1.31	0.59	4,424	2.24	5.00
Received an unsubsidized loan	7.52	0.75	0.40	4,424	1.89	3.56
Received grant aid only	26.39	1.78	0.66	4,424	2.68	7.18
Married	18.53	1.53	0.58	4,424	2.62	6.88
U.S. citizen	88.58	1.52	0.48	4,424	3.18	10.09
U.S. Armed Forces veteran	4.43	0.94	0.32	4,207	2.96	8.77
Enrolled exclusively full-time	44.52	2.36	0.76	4,268	3.10	9.62
Lived on campus	12.48	1.05	0.50	4,424	2.11	4.44
SUMMARY STATISTICS						
Minimum			į		1.74	3.02
25 <sup>th</sup> percentile					2.17	4.72
Median					2.55	6.49
75th percentile					2.81	7.87
Maximum		_			3.18	10.09

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Table F.19—Design effects based on the study weights for low-income undergraduate students (less than 150 percent of poverty)

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	71.24	0.99	0.39	13,306	2.52	6.36
Received any federal aid	63.37	1.12	0.42	13,306	2.68	7.20
Received any non-federal aid	40.62	1.13	0.43	13,306	2.66	7.07
Received any state grant aid	24.09	1.12	0.37	13,306	3.01	9.06
Received any institution grant aid	11.65	0.62	0.28	13,306	2.25	5.05
Received any aid from other sources	11.00	0.58	0.27	13,306	2.13	4.55
Received any grant aid	64.78	1.04	0.41	13,306	2.51	6.30
Received any loan aid	35.73	1.03	0.42	13,306	2.47	6.09
Received any work-study aid	7.51	0.46	0.23	13,306	2.02	4.09
Received any other type of aid	8.24	0.49	0.24	13,306	2.06	4.23
Received a Pell grant	55.94	1.10	0.43	13,306	2.56	6.58
Received a Stafford loan	34.04	1.01	0.41	13,306	2.46	6.04
Received a subsidized loan	33.04	0.98	0.41	13,306	2.41	5.82
Received an unsubsidized loan	12.37	0.63	0.29	13,306	2.21	4.89
Received grant aid only	28.21	1.10	0.39	13,306	2.83	8.00
Married	16.97	0.72	0.33	13,306	2.22	4.91
U.S. citizen	91.30	0.65	0.24	13,306	2.65	7.02
U.S. Armed Forces veteran	6.25	0.39	0.21	12,984	1.82	3.29
Enrolled exclusively full-time	49.48	1.16	0.44	12,914	2.64	6.94
Lived on campus	10.21	0.53	0.26	13,306	2.01	4.03
SUMMARY STATISTICS				_		
Minimum					1.82	3.29
25 <sup>th</sup> percentile					2.12	4.49
Median					2.46	6.06
75 <sup>th</sup> percentile					2.64	6.98
Maximum					3.01	9.06

# **Section B**

Design effect tables for undergraduate students based on the CATI weights

Table F.20—Design effects based on the CATI weights for all undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	8.86	0.51	0.17	27,414	2.95	8.68
Worked while in school	78.82	0.62	0.25	26,359	2.46	6.05
Worked 20 or more hours per week while in school	63.29	0.84	0.30	26,359	2.82	7.96
Worked multiple jobs in 1995-96	31.97	0.75	0.29	25,038	2.54	6.43
Principal job in 1995-96 related to major	32.15	0.94	0.33	20,217	2.87	8.25
Born outside the U.S.	12.05	0.71	0.21	24,462	3.39	11.50
Registered to vote	76.97	0.67	0.28	22,818	2.40	5.76
Voted in the 1996 elections (or planned to)	82.57	0.63	0.25	22,211	2.46	6.03
Has a disability	5.52	0.26	0.14	26,664	1.88	3.55
Applied for financial aid	60.92	1.05	0.30	25,839	3.45	11.90
Attended more than one institution in 1995-96	5.55	0.29	0.14	27,113	2.06	4.26
Has dependents other than spouse	24.23	0.79	0.26	27,414	3.05	9.28
Has children under 5 years old	8.42	0.41	0.17	25,647	2.37	5.60
Has children aged 5 to 13 years old	7.92	0.46	0.17	25,647	2.75	7.55
Accepted all aid offered	86.72	0.60	0.28	15,162	2.16	4.68
First-time beginner in 1995-96	21.93	0.52	0.25	27,414	2.06	4.25
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	27.20	0.68	0.29	23,112	2.33	5.43
Ever attended a community college	52.35	0.99	0.30	27,414	3.29	10.83
Have a degree or license	16.52	0.59	0.22	27,414	2.61	6.84
Did community service during 1995-96	39.28	0.78	0.31	24,639	2.50	6.26
SUMMARY STATISTICS						•
Minimum					1.88	3.55
25 <sup>th</sup> percentile	}				2.35	5.52
Median					2.52	6.34
75 <sup>th</sup> percentile					2.85	8.10
Maximum		·			3.45	11.90



Table F.21—Design effects based on the CATI weights for male undergraduate students

	Percent	Design	SRS		<del></del>	
	Estimate	Std. Err.	Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	8.72	0.74	0.26	11,512	2.82	7.93
Worked while in school	80.43	0.87	0.38	11,068	2.30	5.31
Worked 20 or more hours per week while in school	66.92	1.20	0.45	11,068	2.68	7.16
Worked multiple jobs in 1995-96	35.02	1.07	0.47	10,471	2.29	5.26
Principal job in 1995-96 related to major	29.78	1.39	0.49	8,805	2.86	8.18
Born outside the U.S.	13.74	1.13	0.34	10,261	3.31	10.96
Registered to vote	74.88	1.03	0.44	9,502	2.31	5.34
Voted in the 1996 elections (or planned to)	81.13	1.05	0.41	9,256	2.59	6.73
Has a disability	6.26	0.43	0.23	11,202	1.90	3.61
Applied for financial aid	57.29	1.49	0.48	10,770	3.12	9.75
Attended more than one institution in 1995-96	4.68	0.33	0.20	11,393	1.69	2.86
Has dependents other than spouse	18.62	0.98	0.36	11,512	2.70	7.30
Has children under 5 years old	6.97	0.61	0.24	11,091	2.51	6.29
Has children aged 5 to 13 years old	5.85	0.61	0.22	11,091	2.76	7.60
Accepted all aid offered	86.87	0.82	0.44	6,027	1. <b>89</b>	3.56
First-time beginner in 1995-96	22.80	0.74	0.39	11,512	1.89	3.59
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	24.55	0.95	0.44	9,718	2.17	4.72
Ever attended a community college	51.26	1.32	0.47	11,512	2.84	8.07
Have a degree or license	15.74	0.95	0.34	11,512	2.79	7.81
Did community service during 1995-96	36.70	1.12	0.47	10,316	2.35	5.53
SUMMARY STATISTICS						
Minimum					1.69	2.86
25 <sup>th</sup> percentile	,				2.23	4.99
Median				ĺ	2.55	6.51
75 <sup>th</sup> percentile					2.80	7.87
Maximum					3.31	10.96



Table F.22—Design effects based on the CATI weights for female undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	8.97	0.69	0.23	15,902	3.05	9.29
Worked while in school	77.55	0.76	0.34	15,291	2.26	5.11
Worked 20 or more hours per week while in school	60.44	0.99	0.40	15,291	2.49	6.22
Worked multiple jobs in 1995-96	29.57	0.86	0.38	14,567	2.27	5.17
Principal job in 1995-96 related to major	34.13	1.18	0.44	11,412	2.67	7.11
Born outside the U.S.	10.72	0.78	0.26	14,201	2.99	8.97
Registered to vote	78.59	0.79	0.36	13,316	2.22	4.95
Voted in the 1996 elections (or planned to)	83.68	0.79	0.32	12,955	2.43	5.90
Has a disability	4.93	0.32	0.17	15,462	1.82	3.32
Applied for financial aid	63.75	1.22	0.39	15,069	3.11	9.65
Attended more than one institution in 1995-96	6.23	0.40	0.19	15,720	2.08	4.32
Has dependents other than spouse	28.64	1.04	0.36	15,902	2.89	8.38
Has children under 5 years old	9.62	0.60	0.24	14,556	2.46	6.03
Has children aged 5 to 13 years old	9.62	0.67	0.24	14,556	2.76	7.60
Accepted all aid offered	86.63	0.78	0.36	9,135	2.20	4.84
First-time beginner in 1995-96	21.24	0.64	0.32	15,902	1.98	3.91
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	29.26	0.87	0.39	13,394	2.20	4.85
Ever attended a community college	53.20	1.19	0.40	15,902	3.01	9.05
Have a degree or license	17.13	0.72	0.30	15,902	2.41	5.83
Did community service during 1995-96	41.33	0.97	0.41	14,323	2.35	5.53
SUMMARY STATISTICS						
Minimum					1.82	3.32
25 <sup>th</sup> percentile			1		2.21	4.90
Median					2.42	5.86
75 <sup>th</sup> percentile				ļ	2.78	7.71
					3.11	9.65
Maximum	J	<u> </u>	<u> </u>		1	



Table F.23—Design effects based on the CATI weights for students at less-than-2-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	3.24	0.71	0.36	2,421	1.98	3.92
Worked while in school	58.09	2.64	1.03	2,291	2.56	6.55
Worked 20 or more hours per week while in school	50.39	2.77	1.04	2,291	2.65	7.03
Worked multiple jobs in 1995-96	23.67	1.54	0.91	2,183	1.69	2.86
Principal job in 1995-96 related to major	26.42	2.30	1.16	1,444	1.98	3.92
Born outside the U.S.	14.55	1.88	0.77	2,110	2.44	5.97
Registered to vote	66.78	1.53	1.08	1,903	1.41	2.00
Voted in the 1996 elections (or planned to)	69.29	1.71	1.08	1,815	1.58	2.49
Has a disability	8.94	1.21	0.59	2,316	2.04	4.16
Applied for financial aid	78.39	3.59	0.86	2,265	4.15	17.23
Attended more than one institution in 1995-96	4.16	1.08	0.41	2,345	2.62	6.88
Has dependents other than spouse	41.88	2.01	1.01	2,408	2.00	4.01
Has children under 5 years old	18.61	1.58	0.87	1,981	1.81	3.27
Has children aged 5 to 13 years old	14.89	1.21	0.80	1,981	1.51	2.29
Accepted all aid offered	94.34	1.03	0.61	1,418	1.68	2.84
First-time beginner in 1995-96	48.59	2.76	1.02	2,421	2.72	7.38
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	67.17	1.63	1.03	2,073	1.58	2.49
Ever attended a community college	7.69	0.88	0.54	2,421	1.62	2.63
Have a degree or license	24.82	1.97	0.88	2,421	2.24	5.03
Did community service during 1995-96	27.49	2.70	0.97	2,131	2.79	7.81
SUMMARY STATISTICS						
Minimum					1.41	2.00
25 <sup>th</sup> percentile					1.65	2.73
Median					1.99	3.97
75 <sup>th</sup> percentile					2.59	6.71
Maximum			İ		4.15	17.23



Table F.24—Design effects based on the CATI weights for undergraduate students at public, 2-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	10.43	0.96	0.49	3,954	1.97	3.87
Worked while in school	83.61	1.07	0.60	3,804	1.79	3.19
Worked 20 or more hours per week while in school	74.53	1.29	0.71	3,804	1.83	3.34
Worked multiple jobs in 1995-96	27.92	1.41	0.75	3,623	1.90	3.59
Principal job in 1995-96 related to major	35.47	1.79	0.87	3,012	2.06	4.22
Born outside the U.S.	12.87	1.39	0.56	3,577	2.48	6.16
Registered to vote	75.91	1.32	0.74	3,339	1.78	3.18
Voted in the 1996 elections (or planned to)	81.05	1.22	0.69	3,222	1.76	3.11
Has a disability	5.98	0.48	0.38	3,825	1.25	1.57
Applied for financial aid	45.86	1.96	0.83	3,599	2.36	5.55
Attended more than one institution in 1995-96	6.46	0.58	0.39	3,937	1.47	2.17
Has dependents other than spouse	30.22	1.48	0.73	3,954	2.02	4.10
Has children under 5 years old	11.07	0.80	0.52	3,669	1.55	2.39
Has children aged 5 to 13 years old	10.24	0.90	0.50	3,669	1.79	3.20
Accepted all aid offered	88.47	1.57	0.89	1,302	1.77	3.14
First-time beginner in 1995-96	21.90	0.97	0.66	3,954	1.48	2.19
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	20.40	1.18	0.73	3,039	1.61	2.61
Ever attended a community college	100.00	0.00	0.00	3,954	_a	_a
Have a degree or license	17.07	1.05	0.60	3,954	1.75	3.07
Did community service during 1995-96	32.79	1.39	0.79	3,566	1.77	3.12
SUMMARY STATISTICS						
Minimum					1.25	1.57
25 <sup>th</sup> percentile					1.61	2.61
Median					1.78	3.18
75 <sup>th</sup> percentile					1.90	3.59
Maximum					2.48	6.16

The design effect is undefined because the estimate is 100.00.



Table F.25—Design effects based on the CATI weights for undergraduate students at 4-year, non-doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF	
Received any employer aid	10.63	0.95	0.33	8,650	2.85	8.15	
Worked while in school	78.66	0.85	0.45	8,332	1.90	3.63	
Worked 20 or more hours per week while in school	57.45	1.51	0.54	8,332	2.80	7.81	
Worked multiple jobs in 1995-96	34.06	1.10	0.53	7,953	2.07	4.30	
Principal job in 1995-96 related to major	31.31	1.40	0.57	6,572	2.45	5.99	
Born outside the U.S.	9.17	0.83	0.33	7,681	2.53	6.38	
Registered to vote	79.61	0.78	0.47	7,271	1.65	2.71	
Voted in the 1996 elections (or planned to)	85.93	0.70	0.41	7,116	1.69	2.87	
Has a disability	5.66	0.48	0.25	8,446	1.92	3.69	
Applied for financial aid	73.29	1.36	0.49	8,197	2.78	7.73	
Attended more than one institution in 1995-96	4.76	0.32	0.23	8,584	1.39	1.92	
Has dependents other than spouse	18.84	1.21	0.42	8,650	2.88	8.32	
Has children under 5 years old	5.18	0.43	0.24	8,251	1.76	3.10	
Has children aged 5 to 13 years old	6.56	0.76	0.27	8,251	2.80	7.87	
Accepted all aid offered	86.68	0.83	0.48	5,029	1.74	3.01	
First-time beginner in 1995-96	19.29	0.79	0.42	8,650	1.85	3.43	
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	27.41	1.13	0.52	7,328	2.16	4.68	
Ever attended a community college	11.92	0.82	0.35	8,650	2.36	5.59	
Have a degree or license	17.89	1.16	0.41	8,650	2.81	7.92	
Did community service during 1995-96	47.61	1.13	0.56	7,837	2.01	4.03	
SUMMARY STATISTICS							
Minimum				l	1.39	1.92	
25 <sup>th</sup> percentile		j			1.81	3.27	
Median					2.12	4.49	
75 <sup>th</sup> percentile					2.77	7.68	
Maximum					2.85	8.15	

Table F.26—Design effects based on the CATI weights for undergraduate students at 4-year, doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	5.74	0.49	0.24	9,420	2.05	4.21
Worked while in school	74.46	0.99	0.46	9,072	2.16	4.65
Worked 20 or more hours per week while in school	49.57	1.38	0.52	9,072	2.63	6.94
Worked multiple jobs in 1995-96	39.49	1.08	0.53	8,545	2.04	4.16
Principal job in 1995-96 related to major	27.63	1.10	0.53	7,096	2.08	4.32
Born outside the U.S.	12.45	0.90	0.36	8,450	2.50	6.26
Registered to vote	79.47	0.87	0.46	7,866	1.91	3.64
Voted in the 1996 elections (or planned to)	85.98	0.86	0.40	7,712	2.17	4.72
Has a disability	3.89	0.35	0.20	9,187	1.71	2.94
Applied for financial aid	69.95	1.14	0.49	8,909	2.34	5.47
Attended more than one institution in 1995-96	4.83	0.31	0.22	9,334	1.39	1.94
Has dependents other than spouse	11.30	0.80	0.33	9,420	2.46	6.08
Has children under 5 years old	3.84	0.41	0.20	9,171	2.04	4.16
Has children aged 5 to 13 years old	3.24	0.38	0.19	9,171	2.05	4.21
Accepted all aid offered	82.27	0.95	0.52	5,387	1.82	3.31
First-time beginner in 1995-96	18.59	0.50	0.40	9,420	1.26	1.59
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	25.48	1.06	0.48	8,116	2.20	4.84
Ever attended a community college	14.48	0.82	0.36	9,420	2.25	5.06
Have a degree or license	12.33	0.77	0.34	9,420	2.26	5.11
Did community service during 1995-96	47.67	1.22	0.54	8,414	2.23	4.99
SUMMARY STATISTICS						
Minimum					1.26	1.59
25 <sup>th</sup> percentile					1.97	3.90
Median				1	2.12	4.49
75 <sup>th</sup> percentile					2.24	5.03
Maximum					2.63	6.94



Table F.27—Design effects based on the CATI weights for undergraduate students at public, 4-year, non-doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF			
Received any employer aid	6.70	0.69	0.35	5,166	1.99	3.96			
Worked while in school	77.88	1.03	0.59	4,969	1.75	3.05			
Worked 20 or more hours per week while in school	60.28	1.60	0.69	4,969	2.30	5.29			
Worked multiple jobs in 1995-96	32.29	1.24	0.68	4,749	1.83	3.36			
Principal job in 1995-96 related to major	28.96	1.38	0.72	3,948	1.91	3.64			
Born outside the U.S.	9.89	1.15	0.44	4,687	2.65	7.01			
Registered to vote	79.82	1.03	0.60	4,405	1.71	2.91			
Voted in the 1996 elections (or planned to)	85.97	0.88	0.53	4,316	1.66	2.76			
Has a disability	5.51	0.66	0.32	5,038	2.06	4.23			
Applied for financial aid	66.91	1.74	0.68	4,854	2.58	6.66			
Attended more than one institution in 1995-96	4.57	0.41	0.29	5,129	1.42	2.02			
Has dependents other than spouse	17.84	1.10	0.53	5,166	2.07	4.28			
Has children under 5 years old	5.63	0.52	0.33	4,944	1.59	2.53			
Has children aged 5 to 13 years old	5.38	0.56	0.32	4,944	1.76	3.09			
Accepted all aid offered	87.27	1.16	0.63	2,826	1.85	3.43			
First-time beginner in 1995-96	17.46	0.96	0.53	5,166	1.81	3.27			
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	21.26	1.11	0.62	4,424	1.81	3.28			
Ever attended a community college	13.93	1.15	0.48	5,166	2.38	5.68			
Have a degree or license	17.75	1.32	0.53	5,166	2.48	6.17			
Did community service during 1995-96	44.15	1.20	0.73	4,684	1.65	2.73			
SUMMARY STATISTICS									
Minimum			Ţ		1.42	2.02			
25th percentile					1.73	2.98			
Median					1.84	3.39			
75 <sup>th</sup> percentile	ł	1			2.21	4.88			
Maximum					2.65	7.01			

Table F.28—Design effects based on the CATI weights for undergraduate students at public, 4-year, doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	4.49	0.54	0.27	5,714	1.96	3.84
Worked while in school	74.54	1.21	0.59	5,527	2.06	4.25
Worked 20 or more hours per week while in school	51.29	1.69	0.67	5,527	2.52	6.33
Worked multiple jobs in 1995-96	39.17	1.29	0.68	5,206	1.91	3.65
Principal job in 1995-96 related to major	26.37	1.32	0.67	4,323	1.97	3.89
Born outside the U.S.	11.79	1.09	0.45	5,187	2.43	5.91
Registered to vote	79.76	1.03	0.58	4,868	1.78	3.18
Voted in the 1996 elections (or planned to)	85.57	1.04	0.51	4,766	2.05	4.20
Has a disability	3.70	0.42	0.25	5,587	1.65	2.72
Applied for financial aid	69.07	1.34	0.63	5,385	2.12	4.51
Attended more than one institution in 1995-96	5.15	0.38	0.29	5,654	1.29	1.66
Has dependents other than spouse	11.55	0.98	0.42	5,714	2.33	4.28
Has children under 5 years old	4.04	0.51	0.26	5,562	1.92	3.70
Has children aged 5 to 13 years old	3.29	0.47	0.24	5,562	1.95	3.80
Accepted all aid offered	81.21	1.17	0.69	3,172	1.69	2.85
First-time beginner in 1995-96	17.83	0.60	0.51	5,714	1.19	1.41
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	22.66	1.29	0.59	4,972	2.18	4.76
Ever attended a community college	15.93	1.01	0.48	5,714	2.09	4.38
Have a degree or license	12.08	0.91	0.43	5,714	2.12	4.48
Did community service during 1995-96	45.44	1.46	0.70	5,127	2.10	4.42
SUMMARY STATISTICS						
Minimum					1.19	1.41
25 <sup>th</sup> percentile					1.85	3.41
Median					2.01	4.04
75 <sup>th</sup> percentile					2.11	4.47
Maximum					2.52	6.33



Table F.29—Design effects based on the CATI weights for undergraduate students at private, not-for-profit, 4-year, non-doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	16.02	1.95	0.62	3,484	3.14	9.86
Worked while in school	79.74	1.45	0.69	3,363	2.09	4.38
Worked 20 or more hours per week while in school	53.60	2.83	0.86	3,363	3.29	10.81
Worked multiple jobs in 1995-96	36.46	1.94	0.85	3,204	2.29	5.23
Principal job in 1995-96 related to major	34.53	2.74	0.93	2,624	2.95	8.69
Born outside the U.S.	8.15	1.18	0.50	2,994	2.35	5.52
Registered to vote	79.31	1.18	0.76	2,866	1.56	2.44
Voted in the 1996 elections (or planned to)	85.87	1.13	0.66	2,800	1.72	2.97
Has a disability	5.87	0.70	0.40	3,408	1.74	3.03
Applied for financial aid	81.72	2.02	0.67	3,343	3.02	9.10
Attended more than one institution in 1995-96	5.03	0.52	0.37	3,455	1.40	1.95
Has dependents other than spouse	20.20	2.45	0.68	3,484	3.60	12.96
Has children under 5 years old	4.56	0.73	0.36	3,307	2.00	4.00
Has children aged 5 to 13 years old	8.18	1.62	0.48	3,307	3.41	11.60
Accepted all aid offered	86.01	1.18	0.74	2,203	1.60	2.56
First-time beginner in 1995-96	21.79	1.33	0.70	3,484	1.91	3.64
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	35.97	2.17	0.89	2,904	2.44	5.94
Ever attended a community college	9.16	1.12	0.49	2 494	2.20	£ 22
Have a degree or license	18.06	2.07	0.49	3,484	3.17	5.22
Did community service during 1995-96	52.34	2.07	0.89	3,153	2.33	10.06
SUMMARY STATISTICS	32.34	2.07	0.89	3,133	2.33	5.41
Minimum					1 40	1.05
25 <sup>th</sup> percentile					1.40	1.95
Median					1.82	3.34
75 <sup>th</sup> percentile					2.31	5.32
Maximum		1			3.08	9.48
					3.41	11.60



Table F.30—Design effects based on the CATI weights for undergraduate students at private, not-for-profit, 4-year, doctoral/first-professional institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	10.03	1.08	0.49	3,706	2.19	4.79
Worked while in school	74.18	1.39	0.74	3,545	1.89	3.56
Worked 20 or more hours per week while in school	43.57	2.04	0.83	3,545	2.45	6.02
Worked multiple jobs in 1995-96	40.58	1.74	0.85	3,339	2.05	4.19
Principal job in 1995-96 related to major	32.14	1.71	0.89	2,773	1.93	3.71
Born outside the U.S.	14.83	1.32	0.62	3,263	2.12	4.50
Registered to vote	78.39	1.49	0.75	2,998	1.99	3.95
Voted in the 1996 elections (or planned to)	87.48	1.18	0.61	2,946	1.93	3.73
Has a disability	4.51	0.55	0.35	3,600	1.60	2.55
Applied for financial aid	73.03	2.08	0.75	3,524	2.78	7.72
Attended more than one institution in 1995-96	3.76	0.45	0.31	3,680	1.42	2.02
Has dependents other than spouse	10.42	1.12	0.50	3,706	2.24	5.00
Has children under 5 years old	3.19	0.52	0.29	3,609	1.77	3.12
Has children aged 5 to 13 years old	3.09	0.53	0.29	3,609	1.84	3.38
Accepted all aid offered	85.86	1.18	0.74	2,215	1.59	2.54
First-time beginner in 1995-96	21.22	0.88	0.67	3,706	1.31	1.71
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	35.50	1.48	0.85	3,144	1.73	2.99
Ever attended a community college	9.48	0.98	0.48	3,706	2.04	4.18
Have a degree or license	13.18	1.29	0.56	3,706	2.33	5.42
Did community service during 1995-96	55.55	1.84	0.87	3,287	2.13	4.52
SUMMARY STATISTICS						
Minimum	3				1.31	1.71
25 <sup>th</sup> percentile	. 1				1.75	3.06
Median					1.96	3.84
					2.12	4.51
75 <sup>th</sup> percentile  Maximum					2.78	7.72

Table F.31—Design effects based on the CATI weights for undergraduate students at private, for-profit institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	4.35	0.72	0.35	3,445	2.07	4.2
Worked while in school	63.45	2.19	0.84	3,280	2.61	6.8
Worked 20 or more hours per week while in school	56.45	2.29	0.87	3,280	2.65	7.0
Worked multiple jobs in 1995-96	27.52	1.36	0.80	3,124	1.71	2.92
Principal job in 1995-96 related to major	24.03	1.82	0.90	2,243	2.01	4.0:
Born outside the U.S.	13.57	1.29	0.62	3,014	2.07	4.30
Registered to vote	67.38	1.21	0.89	2,751	1.35	1.82
Voted in the 1996 elections (or planned to)	69.96	1.25	0.90	2,619	1.39	1.94
Has a disability	7.40	0.91	0.45	3,325	2.00	4.02
Applied for financial aid	88.58	1.91	0.55	3,316	3.45	11.91
Attended more than one institution in 1995-96	4.82	0.86	0.37	3,397	2.34	5.49
Has dependents other than spouse	45.62	1.87	0.85	3,445	2.21	4.87
Has children under 5 years old	18.27	1.39	0.72	2,857	1.92	3.70
Has children aged 5 to 13 years old	12.37	0.89	0.62	2,857	1.45	2.10
Accepted all aid offered	94.74	0.65	0.46	2,402	1.43	2.03
First-time beginner in 1995-96	44.73	1.92	0.85	3,445	2.27	5.15
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	73.07	1.68	0.81	2,970	2.06	4.24
Ever attended a community college	5.03	0.61	0.37	3,445	1.65	2.72
Have a degree or license	19.07	1.44	0.67	3,445	2.15	4.63
Did community service during 1995-96	23.73	1.30	0.77	3,072	1.69	2.86
SUMMARY STATISTICS						
Minimum					1.35	1.82
25 <sup>th</sup> percentile					1.67	2.79
Median					2.04	4.14
75 <sup>th</sup> percentile					2.28	5.22
Maximum					3.45	11.91



Table F.32—Design effects based on the CATI weights for dependent undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	2.82	0.32	0.13	16,872	2.53	6.39
Worked while in school	77.73	0.78	0.33	16,189	2.40	5.75
Worked 20 or more hours per week while in school	54.96	1.10	0.39	16,189	2.80	7.85
Worked multiple jobs in 1995-96	42.47	0.94	0.40	15,362	2.35	5.51
Principal job in 1995-96 related to major	21.03	0.97	0.36	12,828	2.69	7.23
Born outside the U.S.	10.67	0.70	0.25	14,994	2.77	7.68
Registered to vote	72.68	0.90	0.38	14,004	2.39	5.71
Voted in the 1996 elections (or planned to)	80.83	0.96	0.34	13,655	2.86	8.16
Has a disability	4.57	0.30	0.16	16,394	1.84	3.38
Applied for financial aid	67.37	1.09	0.37	16,022	2.95	8.72
Attended more than one institution in 1995-96	6.23	0.35	0.19	16,731	1.88	3.53
Has dependents other than spouse	0.00	0.00	0.00	16,872	_a	_a
Has children under 5 years old	0.00	0.00	0.00	16,872	_a	_a
Has children aged 5 to 13 years old	0.00	0.00	0.00	16,872	_a	_a
Accepted all aid offered	87.94	0.57	0.33	9,669	1.73	3.00
First-time beginner in 1995-96	31.87	0.74	0.36	16,872	2.07	4.30
Considered crime rate, graduation rate, or job placement rate when deciding which school to	28.56	0.88	0.38	14,345	2.33	5.43
attend	42.99	1.29	0.38	16,872	3.38	11.40
Ever attended a community college	5.43	0.44	0.17	16,872	2.51	6.29
Have a degree or license	40.09	0.94	0.40	15,095	2.37	5.60
Did community service during 1995-96	40.09	0.54	0.40	15,075	2.57	
SUMMARY STATISTICS					1.73	3.00
Minimum				ŀ	2.33	5.43
25 <sup>th</sup> percentile					2.40	5.75
Median	:					
75 <sup>th</sup> percentile					2.77	7.68
Maximum  The design effect is undefined because the estimate is 100.					3.38	11.40

<sup>&</sup>lt;sup>a</sup> The design effect is undefined because the estimate is 100.00.



Table F.33—Design effects based on the CATI weights for independent undergraduate students

	· · · · · · · · · · · · · · · · · · ·	11.1					
	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF	
Received any employer aid	14.74	0.90	0.35	10,542	2.60	6.76	<u> </u>
Worked while in school	79.87	0.86	0.40	10,170	2.16	4.67	,
Worked 20 or more hours per week while in school	71.28	1.01	0.45	10,170	2.24	5.02	,
Worked multiple jobs in 1995-96	21.76	0.98	0.42	9,676	2.33	5.42	
Principal job in 1995-96 related to major	43.57	1.45	0.58	7,389	2.51	6.28	
Born outside the U.S.	13.37	1.01	0.35	9,468	2.90	8.41	
Registered to vote	81.08	0.93	0.42	8,814	2.23	4.96	
Voted in the 1996 elections (or planned to)	84.23	0.86	0.39	8,556	2.18	4.74	
Has a disability	6.43	0.43	0.24	10,270	1.79	3.22	
Applied for financial aid	54.44	1.49	0.50	9,817	2.97	8.84	
Attended more than one institution in 1995-96	4.87	0.37	0.21	10,382	1.77	3.13	l
Has dependents other than spouse	47.79	1.23	0.49	10,542	2.52	6.35	
Has children under 5 years old	17.58	0.85	0.41	8,775	2.09	4.35	l
Has children aged 5 to 13 years old	16.53	0.89	0.40	8,775	2.25	5.07	
Accepted all aid offered	85.28	1.08	0.48	5,493	2.26	5.10	l
First-time beginner in 1995-96	12.26	0.54	0.32	10,542	1.70	2.88	
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	25.80	1.02	0.47	8,767	2.17	4.73	
Ever attended a community college	61.45	1.27	0.47	10,542	2.67	7.13	
Have a degree or license	27.30	0.98	0.43	10,542	2.27	5.15	
Did community service during 1995-96	38.49	1.14	0.50	9,544	2.29	5.23	
SUMMARY STATISTICS							
Minimum					1.70	2.88	; 
25 <sup>th</sup> percentile					2.17	4.70	i
Median			1		2.26	5.09	
75 <sup>th</sup> percentile					2.42	5.85	
Maximum					2.97	8.84	



Table F.34—Design effects based on the CATI weights for white, Non-Hispanic undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	9.78	0.60	0.21	19,224	2.79	7.80
Worked while in school	79.56	0.69	0.30	18,543	2.33	5.42
Worked 20 or more hours per week while in school	64.02	0.94	0.35	18,543	2.68	7.18
Worked multiple jobs in 1995-96	34.04	0.85	0.36	17,446	2.38	5.67
Principal job in 1995-96 related to major	31.80	1.00	0.38	14,892	2.63	6.90
Born outside the U.S.	4.34	0.33	0.15	17,497	2.14	4.58
Registered to vote	78.81	0.71	0.31	16,848	2.24	5.04
Voted in the 1996 elections (or planned to)	84.46	0.64	0.28	16,445	2.28	5.20
Has a disability	6.24	0.35	0.18	18,738	1.96	3.83
Applied for financial aid	57.30	1.16	0.37	18,042	3.16	9.99
Attended more than one institution in 1995-96	5.24	0.31	0.16	19,061	1.92	3.69
Has dependents other than spouse	21.34	0.79	0.30	19,224	2.67	7.14
Has children under 5 years old	7.41	0.47	0.19	18,301	2.45	5.99
Has children aged 5 to 13 years old	7.18	0.46	0.19	18,301	2.39	5.70
Accepted all aid offered	86.47	0.69	0.34	10,304	2.03	4.13
First-time beginner in 1995-96	21.34	0.58	0.30	19,224	1.96	3.83
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	23.91	0.75	0.33	16,468	2.25	5.05
Ever attended a community college	51.19	1.19	0.36	19,224	3.31	10.94
Have a degree or license	16.57	0.66	0.27	19,224	2.47	6.09
Did community service during 1995-96	41.36	0.90	0.38	17,187	2.39	5.72
SUMMARY STATISTICS						
Minimum					1.92	3.69
25th percentile					2.19	4.81
Median					2.38	5.66
75th percentile					2.55	6.49
Maximum					3.31	10.94



Table F.35—Design effects based on the CATI weights for black, Non-Hispanic undergraduate students

Percent Estimate		<del></del>	<del></del>				
Worked while in school     Worked while in school     Worked 20 or more hours per week while in school     Worked 20 or more hours per week while in school     Worked 20 or more hours per week while in school     Worked multiple jobs in 1995-96     Principal job in 1995-96				1	-	DEFT	DEFF
Worked 20 or more hours per week while in school  Worked multiple jobs in 1995-96 Principal job in 1995-96 related to major Born outside the U.S. Registered to vote Voted in the 1996 elections (or planned to) Has a disability Applied for financial aid Attended more than one institution in 1995-96 Has dependents other than spouse Has children under 5 years old Has children aged 5 to 13 years old Accepted all aid offered Regintered in 1995-96 SUMMARY STATISTICS Minimum  25° percentile Median  Maximum  Maximum  Maximum  1.00  0.81  0.82  0.82  0.83  3,222  2.04  4.17  4.18	Received any employer aid	9.76	1.76	0.51	3,394	3.46	11.99
School   Worked multiple jobs in 1995-96   29.78   2.00   0.82   3,130   2.44   5.98	Worked while in school	80.11	1.32	0.70	3,222	1.87	3.51
Principal job in 1995-96 related to major  32.35  Born outside the U.S.  11.70  1.73  0.57  3,145  3.01  9.08  Registered to vote  78.20  1.62  0.76  2,924  2.13  4.52  Voted in the 1996 elections (or planned to)  81.76  1.46  0.73  2,837  2.02  4.07  Has a disability  3.38  0.54  0.32  3,276  1.70  2.90  Applied for financial aid  76.35  2.53  0.74  3,273  3.41  11.61  Attended more than one institution in 1995-96  6.02  0.80  0.41  3,348  1.95  3.79  Has dependents other than spouse  41.05  2.34  0.84  3,394  2.77  7.66  Has children under 5 years old  15.27  1.76  0.66  2,995  2.68  7.17  Has children aged 5 to 13 years old  13.90  1.79  0.63  2,995  2.83  8.00  Accepted all aid offered  89.85  1.14  0.63  2,324  1.82  3,30  First-time beginner in 1995-96  23.25  1.44  0.73  3,394  1.98  3,92  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college  55.39  2.81  0.85  3,394  3.29  10.85  SUMMARY STATISTICS  Minimum  25° percentile  Median  75° percentile  Maximum  Maximum  32.35  2.55  0.95  2.447  2.70  7.28  7.28  7.20  7.28  7.20  7.28  7.20  7.28  7.20  7.28  7.20  7.28  7.20  7.28  7.20  7.28  7.20  7.20  7.28  7.20  7.21  7.22  7.20  7.21  7.22  7.22  7.23  7.20  7.21  7.22  7.22  7.23  7.20  7.21  7.22  7.23  7.20  7.23  7.20  7.21  7.22  7.22  7.23  7.20  7.21  7.22  7.22  7.23  7.20  7.21  7.22  7.22  7.23  7.20  7.20  7.21  7.22  7.22  7.22  7.23  7.20  7.20  7.21  7.22  7.22  7.23  7.20  7.21  7.22  7.22  7.23  7.20  7.21  7.22  7.22  7.23  7.20  7.20  7.21  7.22  7.22  7.25  7.25  7.25  7.25  7.25  7.25  7.26  7.26  7.27  7.26  7.28  7.26  7.26  7.27  7.26  7.28  7.26  7.27  7.26  7.28  7.26  7.27  7.26  7.27  7.20  7.2		67.22	1.69	0.83	3,222	2.04	4.17
Born outside the U.S.  Registered to vote  Voted in the 1996 elections (or planned to)  Has a disability  Applied for financial aid  Attended more than one institution in 1995-96  Has children aged 5 to 13 years old  Accepted all aid offered  First-time beginner in 1995-96  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college  First age and a dispersentile  Have a degree or license  Maximum  Median  75.36  Proceeding 1.77  1.76  1.76  1.77  1.76  1.	Worked multiple jobs in 1995-96	29.78	2.00	0.82	3,130	2.44	5.98
Registered to vote 78.20 1.62 0.76 2.924 2.13 4.52  Voted in the 1996 elections (or planned to) 81.76 1.46 0.73 2.837 2.02 4.07  Has a disability 3.38 0.54 0.32 3.276 1.70 2.90  Applied for financial aid 76.35 2.53 0.74 3.273 3.41 11.61  Attended more than one institution in 1995-96 6.02 0.80 0.41 3.348 1.95 3.79  Has dependents other than spouse 41.05 2.34 0.84 3.394 2.77 7.66  Has children under 5 years old 15.27 1.76 0.66 2.995 2.68 7.17  Has children aged 5 to 13 years old 13.90 1.79 0.63 2.995 2.83 8.00  Accepted all aid offered 89.85 1.14 0.63 2.324 1.82 3.30  First-time beginner in 1995-96 23.25 1.44 0.73 3.394 1.98 3.92  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college 55.39 2.81 0.85 3.394 3.29 10.85  Have a degree or license 19.35 1.88 0.68 3.394 2.77 7.70  Did community service during 1995-96 35.74 1.96 0.86 3.086 2.27 5.16  SUMMARY STATISTICS  Minimum  2.5 <sup>th</sup> percentile  Median  78.20 1.62 0.76 2.924 2.13 4.52  1.70 2.90 4.00  Maximum  Maximum  8.70 1.90 0.70 2.90 7.85	Principal job in 1995-96 related to major	32.35	2.55	0.95	2,447	2.70	7.28
Voted in the 1996 elections (or planned to)  Has a disability  3.38  0.54  0.32  3,276  1.70  2.90  Applied for financial aid  76.35  2.53  0.74  3,273  3.41  11.61  Attended more than one institution in 1995-96  6.02  0.80  0.41  3,348  1.95  3.79  Has dependents other than spouse  41.05  2.34  0.84  3,394  2.77  7.66  Has children under 5 years old  15.27  1.76  0.66  2,995  2.68  7.17  Has children aged 5 to 13 years old  13.90  1.79  0.63  2,995  2.83  8.00  Accepted all aid offered  89.85  1.14  0.63  2,324  1.82  3.30  First-time beginner in 1995-96  23.25  1.44  0.73  3,394  1.98  3.92  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college  55.39  2.81  0.85  3,394  2.77  7.70  Did community service during 1995-96  35.74  1.96  0.86  3,086  2.27  5.16  SUMMARY STATISTICS  Minimum  25th percentile  Median  75th percentile  Maximum  Maximum  Maximum	Born outside the U.S.	11.70	1.73	0.57	3,145	3.01	9.08
Has a disability  Applied for financial aid  Attended more than one institution in 1995-96  Has dependents other than spouse  41.05  41.05  41.05  42.90  Applied for financial aid  Attended more than one institution in 1995-96  Applied for financial aid  Attended more than one institution in 1995-96  Accepted all aid offered  Accepted all aid offered  By.85  Accepted all aid offered  By.85  Accepted all aid offered  By.85  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college  First a degree or license  By.85  B	Registered to vote	78.20	1.62	0.76	2,924	2.13	4.52
Applied for financial aid Applied for financial aid Attended more than one institution in 1995-96 Applied for financial aid Attended more than one institution in 1995-96 Applied for financial aid Attended more than one institution in 1995-96 Applied for financial aid Attended more than one institution in 1995-96 Applied for financial aid Attended more than one institution in 1995-96 Applied for financial aid Attended more than one institution in 1995-96 Applied for financial aid Attended more than one institution in 1995-96 Applied for financial aid Applied for for do.86 Applied for financial aid Applied for for do.86 Applied for do.86 Applied for for do.86 Applied fo	Voted in the 1996 elections (or planned to)	81.76	1.46	0.73	2,837	2.02	4.07
Attended more than one institution in 1995-96  Attended more than one institution in 1995-96  Has dependents other than spouse  41.05  2.34  0.84  3,348  1.95  3.79  7.66  Has children under 5 years old  15.27  1.76  0.66  2,995  2.68  7.17  Has children aged 5 to 13 years old  13.90  1.79  0.63  2,995  2.83  8.00  Accepted all aid offered  89.85  1.14  0.63  2,324  1.82  3.30  First-time beginner in 1995-96  23.25  1.44  0.73  3,394  1.98  3.92  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college  55.39  2.81  0.85  3,394  2.77  7.70  Did community service during 1995-96  35.74  1.96  0.86  3,086  2.27  5.16  SUMMARY STATISTICS  Minimum  25th percentile  Median  75th percentile  Maximum  Maximum  1.70  2.80  7.85	Has a disability	3.38	0.54	0.32	3,276	1.70	2.90
Has dependents other than spouse	Applied for financial aid	76.35	2.53	0.74	3,273	3.41	11.61
Has children under 5 years old  15.27  1.76  0.66  2,995  2.68  7.17  Has children aged 5 to 13 years old  13.90  1.79  0.63  2,995  2.83  8.00  Accepted all aid offered  89.85  1.14  0.63  2,324  1.82  3.30  First-time beginner in 1995-96  23.25  1.44  0.73  3,394  1.98  3.92  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college  55.39  2.81  0.85  3,394  3.29  10.85  Have a degree or license  19.35  1.88  0.68  3,394  2.77  7.70  Did community service during 1995-96  35.74  1.96  0.86  3,086  2.27  5.16  SUMMARY STATISTICS  Minimum  2.5h percentile  Median  75h percentile  Maximum  Maximum  Maximum	Attended more than one institution in 1995-96	6.02	0.80	0.41	3,348	1.95	3.79
Has children aged 5 to 13 years old  13.90 1.79 0.63 2,995 2.83 8.00 Accepted all aid offered 89.85 1.14 0.63 2,324 1.82 3.30 First-time beginner in 1995-96 23.25 1.44 0.73 3,394 1.98 3.92 Considered crime rate, graduation rate, or job placement rate when deciding which school to attend Ever attended a community college 55.39 2.81 0.85 3,025 2.31 5.33  1.88 0.68 3,394 2.77 7.70 Did community service during 1995-96 35.74 1.96 0.86 3,086 2.27 5.16 SUMMARY STATISTICS Minimum 1.70 2.90 4.00 Median 7.85 Maximum	Has dependents other than spouse	41.05	2.34	0.84	3,394	2.77	7.66
Has children aged 5 to 13 years old  Accepted all aid offered  89.85  1.14  0.63  2,324  1.82  3.30  First-time beginner in 1995-96  23.25  1.44  0.73  3,394  1.98  3.92  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college  55.39  2.81  0.85  3,394  2.77  7.70  Did community service during 1995-96  35.74  1.96  0.86  3,025  2.31  5.33  1.88  0.68  3,394  2.77  7.70  Did community service during 1995-96  35.74  1.96  0.86  3,086  2.27  5.16  SUMMARY STATISTICS  Minimum  2.38  5.65  7.85  Maximum	Has children under 5 years old	15.27	1.76	0.66	2,995	2.68	7.17
Accepted all aid offered 89.85 1.14 0.63 2,324 1.82 3.30  First-time beginner in 1995-96 23.25 1.44 0.73 3,394 1.98 3.92  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college 55.39 2.81 0.85 3,394 3.29 10.85  Have a degree or license 19.35 1.88 0.68 3,394 2.77 7.70  Did community service during 1995-96 35.74 1.96 0.86 3,086 2.27 5.16  SUMMARY STATISTICS  Minimum 1.70 2.90  Some state of the state of th	Has children aged 5 to 13 years old	13.90	1.79	0.63	2,995	2.83	8.00
First-time beginner in 1995-96 23.25 1.44 0.73 3,394 1.98 3.92  Considered crime rate, graduation rate, or job placement rate when deciding which school to attend  Ever attended a community college 55.39 2.81 0.85 3,394 3.29 10.85  Have a degree or license 19.35 1.88 0.68 3,394 2.77 7.70  Did community service during 1995-96 35.74 1.96 0.86 3,086 2.27 5.16  SUMMARY STATISTICS  Minimum 1.70 2.90  Z5th percentile 2.38 5.65  75th percentile 2.80 7.85	Accepted all aid offered	89.85	1.14	0.63	2,324	1.82	
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend   33.67   1.98   0.86   3,025   2.31   5.33    Ever attended a community college   55.39   2.81   0.85   3,394   3.29   10.85    Have a degree or license   19.35   1.88   0.68   3,394   2.77   7.70    Did community service during 1995-96   35.74   1.96   0.86   3,086   2.27   5.16    SUMMARY STATISTICS   1.70   2.90    Median   2.38   5.65    7.5th percentile   2.80   7.85    Maximum   2.80	First-time beginner in 1995-96	23.25	1.44	0.73	3,394	1.98	l
Have a degree or license 19.35 1.88 0.68 3,394 2.77 7.70  Did community service during 1995-96 35.74 1.96 0.86 3,086 2.27 5.16  SUMMARY STATISTICS  Minimum 2.90 2.90 4.00  Median 2.38 5.65  75th percentile 2.80 7.85	placement rate when deciding which school to	33.67	1.98	0.86	3,025	2.31	
Did community service during 1995-96  35.74  1.96  0.86  3,086  2.27  5.16  SUMMARY STATISTICS  Minimum  2.90  25th percentile  Median  7.5th percentile  Maximum  Maximum  2.80  7.85	Ever attended a community college	55.39	2.81	0.85	3,394	3.29	10.85
SUMMARY STATISTICS  Minimum  2.90 25th percentile  Median  2.38 5.65 75th percentile  Maximum  Maximum	Have a degree or license	19.35	1.88	0.68	3,394	2.77	7.70
Minimum  25th percentile  2.00  4.00  Median  2.38  5.65  75th percentile  Maximum  Maximum	Did community service during 1995-96	35.74	1.96	0.86	3,086	2.27	5.16
25 <sup>th</sup> percentile  Median  2.38 5.65  75 <sup>th</sup> percentile  Maximum	SUMMARY STATISTICS						
25 <sup>th</sup> percentile  Median  2.38 5.65  75 <sup>th</sup> percentile  2.80 7.85	Minimum					1.70	2.90
Median  2.38 5.65  75 <sup>th</sup> percentile  2.80 7.85	25 <sup>th</sup> percentile						
75 <sup>th</sup> percentile  2.80  7.85	Median						
Maximum	75 <sup>th</sup> percentile						
	Maximum			1		3.46	11.99

Table F.36—Design effects based on the CATI weights for Asian/Pacific Islander undergraduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	4.12	1.07	0.50	1,602	2.16	4.65
Worked while in school	65.32	2.92	1.22	1,513	2.38	5.68
Worked 20 or more hours per week while in school	40.11	3.15	1.26	1,513	2.50	6.25
Worked multiple jobs in 1995-96	25.07	2.43	1.13	1,474	2.15	4.62
Principal job in 1995-96 related to major	25.36	3.10	1.35	1,039	2.30	5.28
Born outside the U.S.	77.60	2.36	1.09	1,475	2.18	4.74
Registered to vote	56.13	3.58	1.58	992	2.27	5.16
Voted in the 1996 elections (or planned to)	71.41	3.04	1.47	939	2.06	4.25
Has a disability	1.89	0.65	0.35	1,540	1.88	3.55
Applied for financial aid	57.83	3.31	1.27	1,510	2.60	6.77
Attended more than one institution in 1995-96	7.88	1.43	0.68	1,581	2.11	4.45
Has dependents other than spouse	13.21	2.20	0.85	1,602	2.60	6.74
Has children under 5 years old	2.20	0.68	0.38	1,522	1.82	3.32
Has children aged 5 to 13 years old	4.27	1.95	0.52	1,522	3.76	14.11
Accepted all aid offered	79.84	2.92	1.35	882	2.16	4.67
First-time beginner in 1995-96	21.30	1.76	1.02	1,602	1.72	2.96
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	43.20	3.20	1.33	1,390	2.41	5.80
Ever attended a community college	46.74	3.27	1.25	1,602	2.62	6.89
Have a degree or license	13.10	2.19	0.84	1,602	2.60	6.75
Did community service during 1995-96	34.15	3.11	1.25	1,440	2.49	6.19
SUMMARY STATISTICS				;		
Minimum					1.72	2.96
25 <sup>th</sup> percentile					2.13	4.54
Median					2.29	5.22
75 <sup>th</sup> percentile					2.55	6.50
Maximum					3.76	14.11



Table F.37—Design effects based on the CATI weights for Hispanic undergraduate students

	Percent	Design	SRS	Sample	T	
	Estimate	Std. Err.	Std. Err.	Size	DEFT	DEFF
Received any employer aid	4.81	0.89	0.41	2,792	2.19	4.79
Worked while in school	∙80.60	2.24	0.76	2,696	2.95	8.69
Worked 20 or more hours per week while in school	67.32	2.81	0.90	2,696	3.11	9.69
Worked multiple jobs in 1995-96	25.35	2.00	0.85	2,624	2.36	5.55
Principal job in 1995-96 related to major	36.91	4.53	1.21	1,591	3.75	14.03
Born outside the U.S.	30.79	3.81	1.03	1,994	3.69	13.59
Registered to vote	70.02	3.40	1.10	1,746	3.10	9.61
Voted in the 1996 elections (or planned to)	72.69	3.52	1.08	1,692	3.25	10.54
Has a disability	4.11	0.69	0.38	2,725	1.81	3.27
Applied for financial aid	67.42	3.13	0.91	2,634	3.43	11.73
Attended more than one institution in 1995-96	6.04	0.95	0.46	2,726	2.08	4.33
Has dependents other than spouse	29.89	2.43	0.87	2,792	2.80	7.85
Has children under 5 years old	10.95	1.68	0.63	2,466	2.67	7.13
Has children aged 5 to 13 years old	8.29	1.48	0.56	2,466	2.67	7.12
Accepted all aid offered	86.00	2.82	0.92	1,407	3.05	9.33
First-time beginner in 1995-96	24.52	1.73	0.81	2,792	2.13	4.52
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	34.69	3.25	1.09	1,893	2.97	8.81
Ever attended a community college	59.64	3.74	0.93	2,792	4.03	16.25
Have a degree or license	14.79	2.05	0.67	2,792	3.04	9.27
Did community service during 1995-96	32.69	2.96	0.92	2,572	3.20	10.26
SUMMARY STATISTICS						
Minimum				·	1.81	3.27
25 <sup>th</sup> percentile					2.51	6.34
Median			1		3.01	9.04
75 <sup>th</sup> percentile					3.22	10.40
Maximum					4.03	16.25

Table F.38—Design effects based on the CATI weights for low-income undergraduate students (less than 150 percent of poverty)

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	4.24	0.62	0.22	8,581	2.86	8.18
Worked while in school	73.17	1.07	0.49	8,238	2.20	4.82
Worked 20 or more hours per week while in school	57.39	1.26	0.54	8,238	2.31	5.32
Worked multiple jobs in 1995-96	29.58	1.17	0.51	7,963	2.29	5.26
Principal job in 1995-96 related to major	27.02	1.27	0.59	5,705	2.15	4.64
Born outside the U.S.	15.68	1.04	0.42	7,478	2.49	6.18
Registered to vote	73.95	1.14	0.53	6,753	2.13	4.56
Voted in the 1996 elections (or planned to)	<u>7</u> 8.59	1.11	0.51	6,516	2.18	4.75
Has a disability	6.48	0.47	0.27	8,343	1.73	3.00
Applied for financial aid	82.32	1.15	0.42	8,340	2.76	7.63
Attended more than one institution in 1995-96	7.05	0.62	0.28	8,451	2.23	4.98
Has dependents other than spouse	37.71	1.32	0.52	8,581	2.52	6.36
Has children under 5 years old	16.78	1.04	0.43	7,451	2.41	5.83
Has children aged 5 to 13 years old	11.34	0.85	0.37	7,451	2.32	5.39
Accepted all aid offered	87.04	0.89	0.44	5,939	2.04	4.17
First-time beginner in 1995-96	24.19	0.87	0.46	8,581	1.87	3.51
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	30.42	1.08	0.54	7,142	1.99	3.94
Ever attended a community college	50.26	1.47	0.54	8,581	2.72	7.38
Have a degree or license	17.37	0.98	0.41	8,581	2.39	5.70
Did community service during 1995-96	35.67	1.15	0.54	7,846	2.12	4.50
SUMMARY STATISTICS						
Minimum					1.73	3.00
25 <sup>th</sup> percentile					2.13	4.53
Median					2.26	5.12
75 <sup>th</sup> percentile					2.45	6.00
Maximum		•			2.86	8.18

#### **Section C**

Design effect tables for graduate students (excluding first-professional students) based on the study weights



Table F.39—Design effects based on the study weights for all graduate students

,	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	48.25	1.19	0.73	4,721	1.63	2.66
Received any federal aid	19.53	0.76	0.58	4,721	1.32	1.74
Received any non-federal aid	38.12	1.19	0.71	4,721	1.69	2.84
Received any state grant aid	1.51	0.23	0.18	4,721	1.28	1.63
Received any institution grant aid	8.52	0.94	0.41	4,721	2.31	5.35
Received any aid from other sources	15.78	0.72	0.53	4,721	1.36	1.85
Received any grant aid	23.40	0.98	0.62	4,721	1.59	2.54
Received any loan aid	18.89	0.76	0.57	4,721	1.34	1.79
Received any work-study aid	1.58	0.24	0.18	4,721	1.35	1.81
Received any other type of aid	18.66	1.08	0.57	4,721	1.90	3.61
Received an assistantship	12.02	0.89	0.47	4,721	1.89	3.57
Received a Stafford loan	18.63	0.75	0.57	4,721	1.33	1.77
Received a subsidized loan	17.27	0.73	0.55	4,721	1.33	1.77
Received an unsubsidized loan	10.86	0.56	0.45	4,721	1.23	1.50
Received grant aid only	15.12	0.88	0.52	4,721	1.68	2.82
Married	41.67	1.35	0.96	2,606	1.40	1.97
U.S. citizen	92.80	0.51	0.38	4,721	1.36	1.84
U.S. Armed Forces veteran	4.04	0.33	0.30	4,191	1.10	1.21
Enrolled exclusively full-time	30.27	1.34	0.67	4,702	1.99	3.98
Lived on campus	4.36	0.44	0.30	4,721	1.49	2.23
SUMMARY STATISTICS						
Minimum					1.10	1.21
25th percentile	]				1.33	. 1.77
Median					1.42	2.02
75th percentile					1.68	2.83
Maximum					2.31	5.35

Table F.40—Design effects based on the study weights for graduate students at public, 4-year institutions

	Percent	Design	SRS	Sample		-
	Estimate	Std. Err.	Std. Err.	Sample	DEFT	DEFF
Received any aid	47.49	1.54	0.98	2,606	1.58	2.49
Received any federal aid	17.33	0.79	0.74	2,606	1.06	1.13
Received any non-federal aid	39.27	1.54	0.96	2,606	1.61	2.59
Received any state grant aid	2.04	0.35	0.28	2,606	1.27	1.61
Received any institution grant aid	6.30	0.74	0.48	2,606	1.56	2.43
Received any aid from other sources	14.23	0.82	0.68	2,606	1.20	1.44
Received any grant aid	20.88	1.06	0.80	2,606	1.33	1.76
Received any loan aid	16.74	0.78	0.73	2,606	1.06	1.13
Received any work-study aid	2.02	0.38	0.28	2,606	1.38	1.91
Received any other type of aid	23.08	1.54	0.83	2,606	1.87	3.48
Received an assistantship	16.47	1.38	0.73	2,606	1.90	3.63
Received a Stafford loan	16.48	0.77	0.73	2,606	1.06	1.12
Received a subsidized loan	15.42	0.75	0.71	2,606	1.05	1.11
Received an unsubsidized loan	8.34	0.50	0.54	2,606	0.91	0.84
Received grant aid only	13.15	0.82	0.66	2,606	1.24	1.53
Married	40.64	1.35	0.96	2,606	1.40	1.97
U.S. citizen	92.55	0.65	0.51	2,606	1.26	1.59
U.S. Armed Forces veteran	4.13	0.45	0.41	2,323	1.09	1.18
Enrolled exclusively full-time	29.69	1.57	0.90	2,602	1.75	3.06
Lived on campus	4.57	0.56	0.41	2,606	1.36	1.86
SUMMARY STATISTICS				_		_
Minimum					0.91	0.84
25 <sup>th</sup> percentile	ļ				1.07	1.16
Median	ļ		ļ		1.30	1.68
75 <sup>th</sup> percentile				ļ	1.57	2.46
Maximum					1.90	3.63



Table F.41—Design effects based on the study weights for graduate students at private, not-for-profit, 4-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	49.12	1.93	1.12	1,988	1.72	2.95
Received any federal aid	22.40	1.48	0.94	1,988	1.58	2.50
Received any non-federal aid	36.72	1.96	1.08	1,988	1.81	3.29
Received any state grant aid	0.76	0.22	0.20	1,988	1.14	1.30
Received any institution grant aid	12.40	2.05	0.74	1,988	2.78	7.73
Received any aid from other sources	17.47	1.24	0.85	1,988	1.46	2.13
Received any grant aid	27.07	1.81	1.00	1,988	1.81	3.29
Received any loan aid	21.63	1.48	0.92	1,988	1.60	2.58
Received any work-study aid	0.98	0.23	0.22	1,988	1.03	1.05
Received any other type of aid	12.60	1.41	0.74	1,988	1.89	3.58
Received an assistantship	5.70	0.87	0.52	1,988	1.67	2.78
Received a Stafford loan	21.37	1.47	0.92	1,988	1.60	2.57
Received a subsidized loan	19.82	1.44	0.89	1,988	1.61	2.59
Received an unsubsidized loan	14.11	1.11	0.78	1,988	1.42	2.02
Received grant aid only	17.83	1.78	0.86	1,988	2.07	4.28
Married	42.58	1.74	1.11	1,988	1.57	2.46
U.S. citizen	92.93	0.86	0.58	1,988	1.49	2.22
U.S. Armed Forces veteran	3.18	0.45	0.42	1,763	1.08	1.16
Enrolled exclusively full-time	30.26	2.30	1.03	1,974	2.23	4.96
Lived on campus	4.24	0.76	0.45	1,988	1.69	2.86
SUMMARY STATISTICS				:		
Minimum					1.03	1.05
25 <sup>th</sup> percentile					1.47	2.17
Median					1.61	2.61
75 <sup>th</sup> percentile					1.81	3.29
Maximum					2.78	7.73

Section D
Section D  Design effect tables for graduate students (excluding first-professional students) based on the CATI weights



Table F.42—Design effects based on the CATI weights for all graduate students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	22.61	1.40	0.80	2,761	1.76	3.10
Worked while in school	82.60	1.17	0.73	2,694	1.61	2.59
Worked 20 or more hours per week while in school	73.36	1.34	0.85	2,694	1.57	2.46
Worked multiple jobs in 1995-96	22.31	1.27	0.82	2,589	1.55	2.39
Principal job in 1995-96 related to major	74.55	1.62	0.92	2,255	1.77	3.12
Employed as a teacher	20.43	1.56	0.79	2,584	1.97	3.87
Born outside the U.S.	15.80	1.21	0.72	2,587	1.69	2.85
Registered to vote	89.80	1.01	0.62	2,373	1.63	2.67
Voted in the 1992 elections (or planned to)	91.77	0.93	0.59	2,178	1.59	2.52
Voted in the 1996 elections (or planned to)	93.48	0.80	0.51	2,352	1.57	2.48
Has a disability	3.39	0.48	0.35	2,721	1.38	1.91
Applied for financial aid	52.03	2.06	1.00	2,479	2.06	4.23
Attended more than one institution in 1995- 96	2.87	0.42	0.32	2,732	1.32	1.74
Has dependents other than spouse	30.87	1.42	0.88	2,761	2.61	2.58
Has children under 5 years old	9.02	0.71	0.56	2,631	1.27	1.60
Has children aged 5 to 13 years old	12.73	1.05	0.65	2,631	1.61	2.60
Accepted all aid offered	78.63	1.78	1.27	1,045	1.41	1.98
Ever attended a community college	18.07	1.26	0.73	2,761	1.72	2.94
Hasany associate degree	7.11	0.75	0.49	2,761	1,53	2.33
Did community service during 1995-96	53.13	1.59	0.99	2,559	1.61	2.60
SUMMARY STATISTICS						
Minimum					0.98	0.96
25 <sup>th</sup> percentile					1.41	1.98
Median					1.61	2.59
75 <sup>th</sup> percentile					1.72	2.94
Maximum	_				2.06	4.23

The design effect is undefined because the estimate is 100.00.



Table F.43—Design effects based on the CATI weights for graduate students at public, 4-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	20.69	1.79	1.03	1,538	1.73	3.01
Worked while in school	82.57	1.43	0.98	1,503	1.46	2.12
Worked 20 or more hours per week while in school	72.98	1.67	1.15	1,503	1.46	2.13
Worked multiple jobs in 1995-96	23.83	1.74	1.12	1,459	1.56	2.44
Principal job in 1995-96 related to major	74.14	2.20	1.23	1,277	1.79	3.21
Employed as a teacher	20.30	1.92	1.05	1,455	1.82	3.30
Born outside the U.S.	16.25	1.56	0.97	1,460	1.62	2.61
Registered to vote	90.31	1.33	0.81	1,324	1.63	2.67
Voted in the 1992 elections (or planned to)	91.92	1.16	0.78	1,215	1.48	2.20
Voted in the 1996 elections (or planned to)	94.08	1.09	0.65	1,310	1.67	2.78
Has a disability	3.40	0.54	0.47	1,514	1.16	1.33
Applied for financial aid	50.80	2.59	1.34	1,384	1.93	3.72
Attended more than one institution in 1995- 96	2.76	0.51	0.42	1,526	1.22	1.49
Has dependents other than spouse	29.84	1.78	1.17	1,538	1.53	2.33
Has children under 5 years old	8.35	0.84	0.72	1,481	1.16	1.35
Has children aged 5 to 13 years old	12.45	1.41	0.86	1,481	1.65	2.72
Accepted all aid offered	76.91	2.53	1.83	528	1.38	1.90
Ever attended a community college	19.13	1.67	1.00	1,538	1.66	2.76
Has any associate degree	8.07	1.11	0.69	1,538	1.60	2.57
Did community service during 1995-96	52.51	2.06	1.31	1,443	1.57	2.47
SUMMARY STATISTICS						
Minimum					0.95	0.91
25 <sup>th</sup> percentile					1.38	1.90
Median					1.57	2.47
75 <sup>th</sup> percentile				]	1.67	2.78
Maximum	·				1.93	3.72

<sup>&</sup>lt;sup>a</sup> The design effect is undefined because the estimate is 100.00.



Table F.44—Design effects based on the CATI weights for graduate students at private, not-for-profit, 4-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	24.55	2.13	1.27	1,140	1.67	2.79
Worked while in school	82.26	2.06	1.15	1,110	1.80	3.23
Worked 20 or more hours per week while in school	73.50	2.21	1.32	1,110	1.67	2.79
Worked multiple jobs in 1995-96	20.53	1.79	1.24	1,056	1.44	2.08
Principal job in 1995-96 related to major	76.29	2.12	1.41	911	1.51	2.27
Employed as a teacher	21.26	2.73	1.26	1,055	2.16	4.68
Born outside the U.S.	15.33	2.01	1.11	1,053	1.81	3.29
Registered to vote	89.23	1.65	0.99	977	1.66	2.77
Voted in the 1992 elections (or planned to)	91.4	1.65	0.93	896	1.77	3.12
Voted in the 1996 elections (or planned to)	92.45	1.23	0.85	971	1.45	2.11
Has a disability	3.39	0.94	0.54	1,125	1.73	3.01
Applied for financial aid	54.78	3.42	1.56	1,016	2.19	4.80
Attended more than one institution in 1995- 96	3.04	0.75	0.51	1,124	1.46	2.14
Has dependents other than spouse	30.80	2.2107	1.37	1,140	1.62	2.62
Has children under 5 years old	9.29	1.17	0.88	1,076	1.32	1.75
Has children aged 5 to 13 years old	12.77	1.60	1.02	1,076	1.57	2.46
Accepted all aid offered	80.09	2.60	1.83	478	1.42	2.03
Ever attended a community college	16.41	1.98	1.10	1,140	1.80	3.25
Has any associate degree	5.38	0.82	0.67	1,140	1.22	1.50
Did community service during 1995-96	54.11	2.60	1.54	1,042	1.68	2.83
SUMMARY STATISTICS						
Minimum					0.98	0.96
25th percentile					1.45	2.11
Median					1.66	2.77
75 <sup>th</sup> percentile		-			1.80	3.23
Maximum					2.19	4.80

The design effect is undefined because the estimate is 100.00.



# **Section E**

Design effect tables for first-professional students based on the study weights



Table F.45—Design effects based on the study weights for all first-professional students

ì	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	80.23	1.68	0.83	2,309	2.02	4.10
Received any federal aid	69.03	3.07	0.96	2,309	3.19	10.15
Received any non-federal aid	50.37	2.62	1.04	2,309	2.52	6.34
Received any state grant aid	8.60	2.10	0.58	2,309	3.60	12.96
Received any institution grant aid	23.58	3.43	0.88	2,309	3.88	15.08
Received any aid from other sources	20.97	1.76	0.85	2,309	2.08	4.33
Received any grant aid	35.87	3.09	1.00	2,309	3.10	9.61
Received any loan aid	69.44	2.88	0.96	2,309	3.00	9.01
Received any work-study aid	5.23	0.80	0.46	2,309	1.72	2.96
Received any other type of aid	11.03	1.56	0.65	2,309	2.39	5.72
Received an assistantship	4.05	0.67	0.41	2,309	1.64	2.70
Received a Stafford loan	67.88	3.15	0.97	2,309	3.24	10.48
Received a subsidized loan	66.40	3.06	0.98	2,309	3.11	9.68
Received an unsubsidized loan	52.14	2.94	1.04	2,309	2.82	7.98
Received grant aid only	6.34	2.46	0.51	2,309	4.86	23.60
Married	24.974	2.42	0.90	2,309	2.69	7.24
U.S. citizen	95.25	0.79	0.44	2,309	1.79	3.19
U.S. Armed Forces veteran	4.50	0.60	0.44	2,210	1.35	1.83
Enrolled exclusively full-time	80.15	2.77	0.83	2,302	3.33	11:07
Lived on campus	6.91	1.30	0.53	2,309	2.46	6.07
SUMMARY STATISTICS						
Minimum					1.35	1.83
25th percentile					2.05	4.21
Median					2.82	7.97
75th percentile					3.21	10.31
Maximum					4.86	23.60

Table F.46—Design effects based on the study weights for first-professional students at public, 4-year institutions

	Percent	Design	SRS	Sample	Γ -	
· · · · · · · · · · · · · · · · · · ·	Estimate	Std. Err.	Std. Err.	Size	DEFT	DEFF
Received any aid	84.27	1.93	1.16	978	1.65	2.74
Received any federal aid	77.55	2.27	1.33	978	1.70	2.90
Received any non-federal aid	50.14	3.41	1.60	978	2.13	4.56
Received any state grant aid	10.15	3.76	0.97	978	3.89	15.16
Received any institution grant aid	25.77	4.53	1.40	978	3.24	10.49
Received any aid from other sources	16.10	1.68	1.18	978	1.43	2.04
Received any grant aid	40.48	3.56	1.57	978	2.27	5.15
Received any loan aid	76.88	2.35	1.35	978	1.75	3.05
Received any work-study aid	5.12	1.04	0.70	978	1.47	2.16
Received any other type of aid	12.34	1.61	1.05	978	1.53	2.35
Received an assistantship	5.24	1.16	0.71	978	1.62	2.64
Received a Stafford loan	76.42	2.39	1.36	978	1.76	3.09
Received a subsidized loan	74.94	2.23	1.39	978	1.61	2.58
Received an unsubsidized loan	53.17	3.92	1.60	978	2.45	6.02
Received grant aid only	4.30	1.00	0.65	978	1.55	2.40
Married	24.51	3.29	1.38	978	2.39	5.73
U.S. citizen	96.94	0.91	0.55	978	1.65	2.73
U.S. Armed Forces veteran	3.92	1.02	0.63	945	1.61	2.59
Enrolled exclusively full-time	84.88	3.16	1.15	977	2.75	7.58
Lived on campus	4.37	0.88	0.65	978	1.34	1.80
SUMMARY STATISTICS						
Minimum					1.34	1.80
25th percentile					1.58	2.49
Median		İ			1.68	2.82
75th percentile					2.36	5.58
Maximum					3.89	15.16

Table F.47—Design effects based on the study weights for first-professional students at private, not-for-profit, 4-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any aid	77.36	2.45	1.15	1,331	2.14	4.56
Received any federal aid	62.97	4.59	1.32	1,331	3.47	12.04
Received any non-federal aid	50.53	3.77	1.37	1,331	2.75	7.56
Received any state grant aid	7.49	2.31	0.72	1,331	3.20	10.22
Received any institution grant aid	22.02	4.94	1.14	1,331	4.35	18.94
Received any aid from other sources	24.44	2.64	1.18	1,331	2.24	5.01
Received any grant aid	32.59	4.58	1.28	1,331	3.56	12.71
Received any loan aid	64.15	4.32	1.31	1,331	3.29	10.80
Received any work-study aid	5.32	1.15	0.62	1,331	1.87	3.50
Received any other type of aid	10.10	2.44	0.83	1,331	2.96	8.74
Received an assistantship	3.20	0.82	0.48	1,331	1.69	2.86
Received a Stafford loan	61.81	4.71	1.33	1,331	3.54	12.50
Received a subsidized loan	60.32	4.59	1.34	1,331	3.43	11.74
Received an unsubsidized loan	51.42	4.13	1.37	1,331	3.02	9.11
Received grant aid only	7.80	4.10	0.74	1,331	5.58	31.18
Married	25.29	3.43	1.19	1,331	2.88	8.30
U.S. citizen	94.06	1.14	0.65	1,331	1.76	3.08
U.S. Armed Forces veteran	4.92	0.74	0.61	1,265	1.22	1.48
Enrolled exclusively full-time	76.75	3.94	1.16	1,325	3.39	11.53
Lived on campus	8.71	2.05	0.77	1,331	2.65	7.02
SUMMARY STATISTICS						
Minimum					1.22	1.48
25th percentile		, ·			2.19	4.78
Median					3.01	9.05
75th percentile		1	1		3.45	11.89
Maximum					5.58	31.18

# Section F

Design effect tables for first-professional students based on the CATI weights



Table F.48—Design effects based on the CATI weights for all first-professional students

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	4.54	1.18	0.59	1,256	2.02	4.07
Worked while in school	50.37	3.07	1.43	1,223	2.14	4.60
Worked 20 or more hours per week while in school	28.39	2.79	1.29	1,223	2.17	4.69
Worked multiple jobs in 1995-96	22.38	2.60	1.22	1,159	2.12	4.50
Principal job in 1995-96 related to major	66.11	2.60	1.80	689	1.44	2.08
Employed as a teacher	1.03	0.64	0.30	1,159	2.15	4.62
Born outside the U.S.	15.75	1.98	1.08	1,141	1.84	3.38
Registered to vote	88.96	1.70	0.95	1,083	1.79	3.20
Voted in the 1992 elections (or planned to)	89.50	1.21	0.99	953	1.22	1.49
Voted in the 1996 elections (or planned to)	. 91.11	1.43	0.87	1,076	1.65	2.72
Has a disability	2.28	0.50	0.42	1,241	1.17	1.37
Applied for financial aid	85.38	1.94	1.02	1,209	1.91	3.66
Attended more than one institution in 1995-96	1.98	0.41	0.40	1,236	1.03	1.06
Has dependents other than spouse	13.18	1.57	0.95	1,256	1.64	2.70
Has children under 5 years old	4.05	1.09	0.57	1,186	1.90	3.63
Has children aged 5 to 13 years old	3.63	0.93	0.54	1,186	1.71	2.91
Accepted all aid offered	81.19	1.85	1.30	899	1.42	2.01
Ever attended a community college	17.09	1.76	1.06	1,256	1.65	2.74
Has any associate degree	5.30	0.93	0.63	1,256	1.47	2.15
Did community service during 1995-96	57.54	2.86	1.46	1,146	1.96	3.84
SUMMARY STATISTICS						
Minimum					1.03	1.06
25 <sup>th</sup> percentile			ļ !		1.44	2.08
Median					1.79	3.20
75 <sup>th</sup> percentile					2.02	4.07
Maximum					2.17	4.69

The design effect is undefined because the estimate is 100.00.

Table F.49—Design effects based on the CATI weights for first-professional students at public, 4-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	2.05	0.78	0.61	539	1.28	1.64
Worked while in school	40.55	3.14	2.13	529	1.47	2.17
Worked 20 or more hours per week while in school	18.94	2.59	1.70	529	1.52	2.32
Worked multiple jobs in 1995-96	15.49	2.49	1.61	507	1.55	2.41
Principal job in 1995-96 related to major	70.12	3.68	2.79	270	1.32	1.74
Employed as a teacher	1.78	1.44	0.59	507	2.45	6.02
Born outside the U.S.	13.09	2.48	1.50	506	1.66	2.74
Registered to vote	88.95	2.30	1.41	491	1.63	2.65
Voted in 1992 elections (or planned to)	90.47	1.60	1.42	426	1.12	1.26
Voted in the 1996 elections (or planned to)	91.48	2.31	1.26	492	1.83	3.36
Has a disability	1.43	0.41	0.51	536	0.80	0.64
Applied for financial aid	86.38	2.67	1.50	520	1.77	3.14
Attended more than one institution in 1995-96	1.67	0.58	0.56	528	1.04	1.08
Has dependents other than spouse	10.73	1.75	1.33	539	1.31	1.72
Has children under 5 years old	2.94	0.80	0.74	515	1.08	1.16
Has children aged 5 to 13 years old	3.13	0.85	0.77	515	1.11	1.24
Accepted all aid offered	80.38	2.28	1.94	418	1.18	1.38
Ever attended a community college	18.49	2.31	1.67	539	1.38	1.91
Has any associate degree	3.97	0.95	0.84	539	1.13	1.27
Did community service during 1995-96	54.23	3.92	2.23	500	1.76	3.09
SUMMARY STATISTICS						
Minimum					0.80	0.64
25 <sup>th</sup> percentile	1		ı		1.18	1.38
Median					1.38	1.91
75 <sup>th</sup> percentile					1.66	2.74
Maximum  The design effect is undefined because the estimate is 100.00.		İ			2.45	6.02

The design effect is undefined because the estimate is 100.00.

Table F.50—Design effects based on the CATI weights for first-professional students at private, not-for-profit, 4-year institutions

	Percent Estimate	Design Std. Err.	SRS Std. Err.	Sample Size	DEFT	DEFF
Received any employer aid	6.10	1.84	0.89	717	2.06	4.24
Worked while in school	56.70	4.20	1.88	694	2.23	4.98
Worked 20 or more hours per week while in school	34.47	3.93	1.80	694	2.18	4.76
Worked multiple jobs in 1995-96	26.87	3.65	1.74	652	2.10	4.43
Principal job in 1995-96 related to major	63.94	3.51	2.35	419	1.50	2.24
Employed as a teacher	0.54	0.45	0.29	652	1.55	2.42
Born outside the U.S.	17.50	2.78	1.51	635	1.84	3.39
Registered to vote	88.98	2.41	1.29	592	1.87	3.51
Voted in the 1992 elections (or planned to)	88.84	1.72	1.37	527	1.26	1.58
Voted in the 1996 elections (or planned to)	90.85	1.83	1.19	584	1.54	2.36
Has a disability	2.82	0.76	0.62	705	1.22	1.48
Applied for financial aid	84.73	2.69	1.37	689	1.96	3.86
Attended more than one institution in 1995-96	2.17	0.55	0.55	708	1.01	1.01
Has dependents other than spouse	14.70	2.30	1.32	717	1.74	3.03
Has children under 5 years old	4.75	1.68	0.82	671	2.05	4.19
Has children aged 5 to 13 years old	3.95	1.40	0.75	671	1.86	3.47
Accepted all aid offered	81.85	2.77	1.76	481	1.58	2.49
Ever attended a community college	16.21	2.48	1.38	717	1.80	3.25
Has any associate degree	6.13	1.38	0.90	717	1.54	2.38
Did community service during 1995-96	59.68	4.06	1.93	646	2.11	4.43
SUMMARY STATISTICS				1		
Minimum					1.01	1.01
25 <sup>th</sup> percentile					1.54	2.36
Median					1.84	3.39
75 <sup>th</sup> percentile					2.06	4.24
Maximum					2.23	4.98

The design effect is undefined because the estimate is 100.00.





## Appendix G Supplemental Tables



Table G.1-Number of students enrolled in postsecondary institutions by family income and student level for all institutions

							Unclassified	Graduate/first-
		Total	Freshman	Sophomore	Junior	Senior	undergraduate	professional
	I Immigrated circ	48 380	301 206	5 769	4.698	5,134	1,540	6,922
IOIAL	Weighted size	10 375 435	8 390 721	3.623.405	1.816,640	2,093,699	738,992	2,711,978
	SE weighted	307,958	190,091	126,923	47,960	55,473	87,945	82,544
000 013	eris pathoismul I	2 346	1 501	366	222	206	51	•
Dependent: less than \$10,000	Weighted cize	743 197	412.584	163.436	80,439	75,557	11,181	*
	SE weighted	35,256	23,779	14,968	6,726	8,100	2,526	*
	aria poddaiomal I	0 \$60	1 684	333	263	239	41	*
Dependent: \$10,000-\$19,999	Weighted size	803 725	449 238	154.590	92,607	85,705	21,585	*
	SE weighted	32,213	24,432	14,436	7,502	6,209	6,128	*
Danandant: \$70 000-\$79 999	I Inweighted size	2.821	1,779	409	318	264	51	*
Dependent: \$20,000 at 1,000	Weighted size	968,776	509,355	211,026	125,147	99,729	23,519	*
	SE weighted	41,123	27,872	16,996	9,151	7,867	8,600	*
Concentrate \$20,000,\$20,000	I Inweighted size	2,610	1.615	411	290	261	33	*
Dependent: 520,000-527,777	Weighted size	907.019	455.046	228,929	105,975	100,552	16,517	*
	SE weighted	34,572	23,910	18,894	7,675	7,430	5,843	*
Denendent: \$40 000_\$49 999	I Inweiphted size	2.772	1,777	354	334	258	49	*
יייייייייייייייייייייייייייייייייייייי	Weighted size	944,908	504,976	185,278	127,474	99,572	27,608	*
	SE weighted	37,563	27,481	15,235	8,555	7,736	8,439	•
000 030 000 030 000 0	I Immerial today	2 480	1 535	331	305	287	*	*
Dependent: 300,000-307,379		917,614	496.748	164.959	124,279	120,525	*	*
	SE weighted	38,869	30,334	14,081	8,453	8,038	*	*
Denendent: &&0 000-\$&99	I Inweighted size	2,197	1,343	298	275	262	*	*
	Weighted size	767,506	381,634	153,840	109,757	111,099	*	*
	SE weighted	33,426	24,559	14,060	7,738	8,354	#	*
000 070 000 CTO 000	I Inweighted size	1 706	1.059	228	215	177	*	*
Dependent: \$70,000-\$73,333	Weighted size	Š	285,152	120,467	90,438	76,073	*	*
	SE weighted	26,265	18,133	12,439	7,472	6,994	*	*



Table G.1—Number of students enrolled in postsecondary institutions by family income and student level for all institutions (continued)

		Total	Freshman	Conhomons			Unclassified	Graduate/first-
Dependent: \$80,000-\$99,999	Unweighted size	2,061	1.280	280	1011IIII	Senior 216	undergraduate *	professional
	Weighted size	687,985	316,294	159.888	103 946	04 018	•	+ 4
	SE weighted	30,172	19,590	15.932	7657	7.224	*	+ 4
					100,	+776		•
Dependent: \$100,000 or more	Unweighted size	2,663	1.619	331	330	348	#	•
	Weighted size	887,638	406 548	160 408	147 025	160.040		• 1
	SE weighted	41 408	78.404	12,700	147,933	159,037	• •	
	0		+6+67	17,119	10,795	12,144	*	*
Independent: less than \$5,000	Unweighted size	5.190	2,067	470	358	733	731	
	Weighted size	1 632 682	605,2	0/4	000	755	55.55	1,583
	CE weighted	20,200,	003,731	202,403	118,449	198,898	58,597	388,554
	Danigna de	47,073	29,197	21,005	8,410	11,058	9,835	19,568
Independent: \$5,000-\$9,999	Unweighted size	3,804	1.539	413	312	1441	- 1	Č
	Weighted size	1,542,179	571,037	314 138	112 990	168 050	72 405	076
	SE weighted	48,220	32.402	25,620	8 861	0.815	13,493	301,360
	•			210,01	0,001	7,017	13,247	14,066
Independent: \$10,000-\$19,999	Unweighted size	5,156	2,183	541	378	988	777	1 221
	Weighted size	2,382,658	1.012,851	404.032	139 461	223 822	7/7	177,1
	SE weighted	71.974	40 327	31.058	0 737	300,077	10,630	4/3,23/
			170,00	01,10	7,132	12,363	19,530	22,302
Independent: \$20,000-\$29,999	Unweighted size	3,363	1,275	354	264	353	122	708
	Weighted size	1,772,544	99,366	332,670	102.979	143.596	100 464	303 460
	SE weighted	901'99	44,401	28,505	9,010	9,130	15,917	20,036
Independent: \$30,000-\$49,999	Unweighted size	3.582	1.168	388	330	171	700	
	Weighted size	2,013,442	688.375	359 587	134 499	076	507 176 910	1,110
	SF weighted	86 878	20.200	72,72	6.0	102,342	010,071	534,814
	nanigiam ac	00,270	39,398	33,132	610,11	12,732	16,331	25,380
Independent: \$50,000 or more	Unweighted size	3,078	905	253	230	336	521	187
	Weighted size	1,815,344	595.766	247.754	100 256	165,657	66.041	1,104
	SE weighted	69,323	41,300	25 383	98.6	11.857	13 711	0/6,010
				20262	2,000	700,11	12,711	29,943

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.

Table G.2—Number of students enrolled in postsecondary institutions by family income and student level for public, less-than-4-year institutions

							Unclassified	Graduate/first-
		Total	Freshman	Sophomore	Junior	Senior	undergraduate	professional
TOTAI	I Inweighted size	7.187	5.421	1.213	53	*	490	*
	Weighted size	7.839.449	5.183.471	2,087,088	79,338	*	477,990	*
	SE weighted	256,017	173,722	119,982	18,006	•	81,531	*
	11	330	383	45	*	*	*	*
Dependent: less than \$10,000	Unweighted size	281 604	282	57.430	*	*	*	*
	SE weighted	27,186	21,153	12,404	*.	*	*	*
	,	į	,	;	•	*	4	#
Dependent: \$10,000-\$19,999	Unweighted size	374	312	41	٠	•		. 4
•	Weighted size	304,021	230,232	55,820	*	*	*	•
	SE weighted	25,293	21,845	12,804	*	*	*	*
  Dependent: \$20 000-\$29,999	Unweighted size	408	331	57		*	*	*
	Weighted size	401,566	280,952	96,705	*	*	*	#
	SE weighted	35,363	25,734	15,187	*	*	*	*
	I Immisched ding	340	777	19	*	*	*	*
Dependent: \$30,000-\$37,979	Uliweignieu size	350 650	773 676	109 047	*	*	*	*
	weignted size	309,009	24,'40		*	*	*	*
	SE weighted	29,143	21,996					
Dependent: \$40,000-\$49,999	Unweighted size	385	311	50	*	*	*	*
בריייים ביייים יייים יייים ייים בי	Weighted size	380.332	275,313	81,757	*	*	*	*
	SE weighted	31,363	25,444		*	*	*	*
000 034 000 034 7 1	Transitated of a	308	190	9٤	*	*	*	*
Dependent: \$30,000-\$38,889	Unichted size	350.877	285 066	55615	*	*	*	*
	SE weighted	33,248	28,888		*	*	*	#
Denendent: \$60,000-\$69,999	Unweighted size	207	177	*	*	*	*	*
	Weighted size	264,211	206,093	*	*	*	*	*
	SE weighted	27,898	23,259	*	*	*	*	*
Denendent: \$70,000-\$79,999	Unweighted size	184	146	*	*	*	*	*
	Weighted size	200,879	139,384	#	*	*	*	*
	SE weighted	20,385	16,421	*	*	*	*	*



Table G.2-Number of students enrolled in postsecondary institutions by family income and student level for public, less-than-4-year institutions (continued)

		,					Unclassified	Graduate/first-
		Total	Freshman	Sophomore	Junior	Senior	undergraduate	professional
Dependent: \$80,000-\$99,999	Unweighted size	189	145	33		*	*	*
	Weighted size	220,862	147,060	62,440	*	*	*	*
	SE weighted	23,456	17,775	14,009	*	*	*	*
Dependent: \$100,000 or more	Unweighted size	175	149	*	*	*	•	*
	Weighted size	217,200	175,088		*	*	*	*
	SE weighted	29,143	26,040	•	*	•	•	•
Independent: less than \$5,000	Unweighted size	069	517	117	•	*	13	•
	Weighted cine	864 400	360 036	(11)			10	•
	Weignited size	34,490	332,333	100,303	• •		36,748	•
	or weighted	30,178	25,293	19,846	•	•	8,775	*
Independent: \$5,000-\$9,999	Unweighted size	199	463	146	•	•	05	*
	Weighted size	675,647	381,249	242,445	*	*	40 639	*
	SE weighted	41,886	30,279	24,977	*	•	11,719	•
Independent: \$10,000-\$19,999	Unweighted size	1 031	754	181	•	•		•
	Weighted size	1127 210	722 257	101		•	60 00	•
	Weignited size	416,721,1	797,567	798,623	•	*	87,399	*
•	SE weighted	63,303	47,901	30,203	*	*	18,413	*
Independent: \$20,000-\$29,999	Unweighted size	899	459	135	*	*	7	*
	Weighted size	866,391	530,072	266.186		*	61 097	•
	SE weighted	59,110	43,151	27,937	•	*	14,606	*
Independent: \$30,000-\$49,999	Unweighted size	704	477	145	*	*	7.5	•
	Weighted size	907,120	531.634	273.742	•	*	88 848	*
	SE weighted	57,410	37,824	32,268	*	*	15,373	•
T-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	•							
Independent: \$50,000 or more	Unweighted size	209	364	66	*	*	40	•
	Weighted size	707,253	452,065	195,434	*	*	46,821	•
	SE weighted	55,444	39,707	24,761	*	*	11,135	*

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.

Table G.3—Number of students enrolled in postsecondary institutions by family income and student level for public, 4-year institutions

							Unclassified	Graduate/first-
•		Total	Freshman	Sophomore	Junior	Senior	undergraduate	professional
TOTAL	Unweighted size	19,537	7.931	2,103	2,711	3,042	243	3,507
	Weighted size	6,779,202	1,507,310	934,060	1,212,881	1,467,255	99,103	1,558,593
	SE weighted	133,682	48,731	32,590	39,005	47,988	17,416	49,299
Donondont: loce than \$10 (f)()	I Inweiohted size	885	514	133	127	104	•	•
Dependent: 1635 unan 410,000	Weighted size	264.216	97.427	60809	54,572	49,555	•	*
	SE weighted	15,999	7,290	6,502	5,085	5,638	•	•
Donondont: \$10 000-\$19 000	I Inweiohted size	1.121	289	163	141	125	•	*
Depondent: \$10,000-\$17,77	Weighted size	308.212	123,742	66,354	60,586	56,335	•	*
	SE weighted	16,300	8,884	5,575	6,188	5,185	•	•
Denendent: \$20,000-\$29,999	Unweighted size	1,308	793	176	190	138	•	•
	Weighted size	361,641	132,930	74,979	83,616	959'99	*	•
	SE weighted	17,723	8,481	6,515	6,972	6,593	•	•
Denendent: \$30 000-\$39 999	Unweighted size	1.220	1117	181	178	141	*	•
	Weighted size	341,733	116,817	78,154	78,620	62,509	*	•
	SE weighted	15,621	7,598	6,432	7,070	6,156	•	•
Denendent: \$40,000-\$49,999	Unweighted size	1,317	800	165	200	145	•	•
	Weighted size	363,456	133,670	70,322	88,956	67,411	•	•
	SE weighted	17,461	8,198	6,370	7,327	6,625	•	•
Denendent: \$50,000-\$59,999	Unweighted size	1,245	723	156	197	164	•	•
	Weighted size	380,853	130,048	73,574	92,448	83,177	•	•
	SE weighted	16,958	7,398	6,818	7,611	7,131	•	•
Denendent: \$60 000-\$69 999	Unweighted size	1.069	630	152	138	145	•	•
	Weighted size	322,026	104,594	72,862	66,505	76,389	•	*
	SE weighted	15,197	6,308	6,314	6,025	7,273	•	•
Denendent: \$70 000-\$79 999	Unweighted size	858	527	102	118	106	•	•
	Weighted size	252,486	87,678	49,178	57,840	55,626	•	•
	SE weighted	13,794	6,164	5,824	5,803	9/0/9	*	•
					Ē			



Table G.3-Number of students enrolled in postsecondary institutions by family income and student level for public, 4-year institutions (continued)

							Unclassified	Graduate/first-
		Total	Freshman	Sophomore	Junior	Senior	undergraduate	professional
Dependent: \$80,000-\$99,999	Unweighted size	886	209	125	143	113	*	*
	Weighted size	291,097	95,898	61,314	71,481	62,404	*	*
	SE weighted	15,807	6,661	6,288	6,803	5,896	*	*
Dependent: \$100,000 or more	Unweighted size	1,224	728	145	169	180	*	*
	Weighted size	407,531	129,997	77,255	94,948	104,596	*	*
	SE weighted	23,014	9,034	6,754	8,780	10,478	*	*
						•		
Independent: less than \$5,000	Unweighted size	1,787	246	133	214	373	*	803
	Weighted size	561,128	56,624	52,288	79,017	152,458	*	213.094
	SE weighted	20,015	5,305	5,163	5,943	9,950	*	13,980
Independent: \$5,000-\$9,999	Unweighted size	1.342	180	106	207	300		
	Weighted size	505 513	900 01	007 00	107 00	(0)	٠ +	41C
	Weigning size	210,000	46,008	39,650	877,78	133,667	•	189,890
	SE weighted	17,455	2,086	4,505	6,352	8,877	*	10,521
Independent: \$10,000-\$19,999	Unweighted size	1,707	289	147	232	357	33	759
	Weighted size	989.689	84.278	57 989	97.085	165 426	12.824	780 084
	SE weighted	24,095	7,806	5,326	8.275	10,667	3 190	15 263
	•					7,00,01	3,10	13,403
Independent: \$20,000-\$29,999	Unweighted size	1,130	180	8	162	224	40	443
	Weighted size	507,948	52,759	35,124	68,323	106,260	14,743	230.739
	SE weighted	22,549	5,554	4,385	7,077	8,073	3,506	15,226
Independent: \$30,000-\$49,999	[]nweighted size	1 222	177	6	-	ć	1	!
	27.5 20.1.5	777,1		02	<u> </u>	177	•	27.1
	Weighted size	601,912	56,199	40,691	82,000	109,249	*	300,187
	SE weighted	27,187	6,573	4,828	8,732	9,884	*	18,143
Independent: \$50,000 or more	Unweighted size	1 114	130	40	-	COC	7	
	Weighted size	611 765	56.641	72 517	737 73	707	0+ :	\$00°
	Weignicu size	011,703	30,041	/10,62	24,626	112,537	21,189	343,225
	SE Weignted	29,118	6,494	3,668	6,420	9.839	4.257	19 540

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.

Table G.4—Number of students enrolled in postsecondary institutions by family income and student level for private, not-for-profit, less-than-4-year institutions

		Total	Frechman	Sonhomore	Junior	Senior	undergraduate	professional
	11	2000	1 552	211	46		149	•
TOTAL	Unweignted size	7/0,7	5,50	110	2 ;	•	7000	•
	Weighted size	223,522	161,988	35,655	3,160	•	18,224	•
	SE weighted	31,706	24,075	6,478	2,277	•	11,541	•
Descriptions: less than \$10,000	I Inweighted size	76	75	*	•	•	*	•
Dependent. Iess time \$10,000	Weighted size	10.261	7.823	*	•	*	•	*
	Weighted Size	2001	1 554	•	•	*	•	•
	SE weignted	7,08/	1,534					
		Ş	5	*	•	*	•	•
Dependent: \$10,000-\$19,999	Unweighted size	103	16	• •		•	•	•
	Weighted size	9,186	7,915	•	•	•	• •	• •
	SE weighted	1,717	1,571	•	•	•	•	•
		ı	;	•	•	•	•	•
Dependent: \$20,000-\$29,999	Unweighted size	92	72	•	•	•	•	•
•	Weighted size	9,465	7,344	•	•	•	•	
	SE weighted	2.050	1,916	•	•	•	*	•
		)   						
Denandent: \$30 000-\$39 999	I Inweighted size	83	89	•	•	•	•	•
7,7,7,7 \$ 50,000 \$ 11	Weighted size	7 669	\$ 930	*	•	*	•	•
	SE weighted	1 542	1 445	•	*	*	•	•
	or weignieu	7.	,,					
Domandont: \$40 000-\$49 999	I Inweiohted size	103	70	•	•	•	•	*
בליכות ביוני	Weighted size	9 2 7 8	5.594	*	•	*	•	•
	SE maighted	2.050	1217	•	*	•	•	•
	OL Weighted	) } •						
Descendent: 850 000-859 999	I Inweiohted size	79	20	•	•	•		•
	Weighted size	7.119	4.030	•	•	•	•	*
	SE weighted	1,613	606	•	•	•	•	•
			•					
Dependent: \$60,000-\$69,999	Unweighted size	62	53	•	•	*	•	•
	Weighted size	5,185	4,338	•	•	•	•	•
	SF weighted	696	893	•	•	•	*	•
		<u>.</u>						
Denendent: \$70,000-\$79,999	Unweighted size	99	55	•	•	•	•	•
	Weighted size	6,926	5,638	•	*	•	•	•
	SE weighted	1,399	1,301	•	•	•	•	•



Table G.4-Number of students enrolled in postsecondary institutions by family income and student level for private, not-for-profit, less-than-4-year institutions (continued)

		Ę	-				Unclassified	Graduate/first-
		1 otal	Freshman	Sophomore	Junior	Senior	undergraduate	professional
Dependent: \$80,000-\$99,999	Unweighted size	40	30	*	*	*	*	*
	Weighted size	3,858	2,872	*	*	*	•	*
	SE weighted	913	893	*	*	*	*	*
	:							
Dependent: \$100,000 or more	Unweighted size	49	38	*	*	*	*	*
	Weighted size	4,845	3,249	*	*	*	*	*
	SE weighted	1,043	827	*	*	*	•	*
Independent: less than \$5 000	T language Land		Č	ì	,			
mependent. Iess than \$3,000	Onweignted size	987	225	46	*	*	*	*
	Weighted size	28,358	21,408	5,078	*	*	*	*
	SE weighted	90,70	4,726	1,845	*	*	*	*
Independent: \$5,000-\$9,999	Unweighted size	210	159	3	*	*	*	4
	Weighted size	22.387	16.739	3 353	*	*	•	+ 4
	SE weighted	4,291	3,338	1,153	*		*	*
Independent: \$10,000-\$19,999	Unweighted size	317	224	49	*	*	37	*
	Weighted size	36,599	26,257	5,007	*	*	4.246	*
	SE weighted	7,361	6,058	1,162	*	*	2,141	*
Independent: \$20,000-\$29,999	Unweighted size	172	128	•	*	•	*	*
	Weighted size	21,288	15,304	*	*	*	*	*
	SE weighted	4,995	3,637	*	*	*	*	*
Independent: \$30,000-\$49,999	Unweighted size	182	120	30	*	*	*	*
	Weighted size	22,866	14,920	4,086	*	*		*
	SE weighted	4,269	2,990	1,190	•	*	*	*
Independent: \$50,000 or more	Unweighted size	134	95	*	*	*	*	*
	Weighted size	18,232	12,627	*	*	*	*	*
	SE weighted	4,483	3.308	*	*	*	*	*

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.

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Jumber of students enrolled in postsecondary institutions by family income and student level for	rivate, not-for-profit, 4-year institutions
Table G.5-Number of st	not-f

							Unclassified	Graduate/first-
		Total	Freshman	Sophomore	Junior	Senior	undergraduate	professional
TOTAL	Unweighted size	14.086	5.246	1,650	1,752	2,004	146	3,288
	Weighted size	3.561.088	841,086	465,515	499,134	601,524	47,165	1,106,664
	SE weighted	92,252	33,802	20,526	21,239	27,478	7,446	63,083
Dependent: Jess than \$10,000	Unweighted size	694	360	144	87	66	•	*
	Weighted size	134.790	51,646	36,060	20,494	25,485	*	*
	SE weighted	14,070	5,831	4,603	2,738	5,805	*	*
Donandont: \$10,000,\$10,000	I Inweighted size	703	373	105	113	111	*	*
Dependent: \$10,000-\$15,575	Weighted size	139.827	52,365	28,130	30,014	28,909	*	*
	SE weighted	10,373	4,749	3,482	4,151	3,406	*	*
Denendent: \$20,000-\$29,999	Unweighted size	807	416	141	122	123	*	*
	Weighted size	159,062	58,854	33,067	33,172	32,606	*	*
	SE weighted	10,022	4,983	3,404	3,560	4,276	*	*
Dependent: \$30 000-\$39 999	Unweighted size	784	422	134	107	118	*	#
	Weighted size	158,239	60,394	35,933	26,549	34,702	*	*
	SE weighted	9,433	4,525	3,472	2,961	4,153	#	*
Dependent: \$40,000-\$49,999	Unweighted size	815	475	102	127	110	*	*
	Weighted size	164,162	68,812	27,303	36,015	31,721	*	*
	SE weighted	10,221	5,358	3,182	4,098	3,987	*	*
Denendent: \$50 000-\$59 999	Unweighted size	731	409	66	103	120	*	*
	Weighted size	158,510	62,293	29,259	30,093	36,865	*	*
	SE weighted	10,378	4,941	3,968	3,457	3,699	*	*
Denendent: \$60.000-\$69.999	Unweighted size	759	404	105	131	115	*	*
	Weighted size	160,662	55,269	29,870	40,007	34,331	*	*
	SE weighted	10,135	4,314	3,387	4,567	4,101	*	*
Dependent: \$70,000-\$79.999	Unweighted size	540	288	87	94	70	*	*
	Weighted size	113,951	42,045	23,113	28,332	20,291	*	*
	SE weighted	8,662	3,677	2,784	3,681	3,460	*	*

Table G.5-Number of students enrolled in postsecondary institutions by family income and student level for private, not-for-profit, 4-year institutions (continued)

		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first- professional
Dependent: \$80,000-\$99,999	Unweighted size	192	436	110	110	102	*	*
	Weighted size	154,864	57,927	32,138	31,410	32,381	*	*
	SE weighted	10,054	4,114	4,041	3,369	4,173	*	*
Dependent: \$100,000 or more	Unweighted size	1,137	646	151	991	165	*	*
	Weighted size	242,745	87,939	48,510	49,584	54,365	*	*
	SE weighted	18,103	6,870	5,352	5,618	6,118	*	*
Independent: less than \$5,000	Unweighted size	1,454	264	109	125	175	*	777
	Weighted size	318,288	43,280	26,282	30.217	43.293	*	174 064
	SE weighted	17,442	5,492	3,493	3,837	4,514	*	13,628
Independent: \$5,000-\$9,999	Unweighted size	799	112	69	82	122	•	405
	Weighted size	202,059	22,987	16,309	18,255	32,372	*	108 495
	SE weighted	11,810	3,941	2,616	2,586	3,953	*	9,148
Independent: \$10,000-\$19,999	Unweighted size	1,157	203	<b>8</b>	112	192	*	548
	Weighted size	357,107	51,362	26,631	32,106	55,164	*	187.827
	SE weighted	20,501	6,400	3,681	3,817	6,041	*	15,917
Independent: \$20,000-\$29,999	Unweighted size	880	147	92	80	117	*	432
	Weighted size	287,651	40,677	21,392	23,446	35,396	*	156.890
	SE weighted	16,964	5,237	3,205	3,299	4,285	*	12,757
Independent: \$30,000-\$49,999	Unweighted size	1,052	139	79	114	144	*	088
	Weighted size	395,899	38,533	31,383	39,930	53.981	*	222 680
	SE weighted	23,812	5,455	5,238	4,987	6,176	*	16,517
Independent: \$50,000 or more	Unweighted size	1,013	152	51	79	121	33	277
	Weighted size	413,272	46,703	20,135	29,510	49.662	10.554	256 708
	SE weighted	27,738	7,347	3,571	4.402	6.536	2 539	230,733

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.

Table G.6-Number of students enrolled in postsecondary institutions by family income and student level for private, for-profit, institutions

		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first- professional
TOTAL	Unweighted size	5,507	4,175	492	136	65	512	127
	Weighted size	972,174	998,969	101,087	20,127	10,863	96,510	46,721
	SE weighted	54,359	45,393	14,417	3,937	2,656	24,420	21,230
000 018 17 17 17		,	9,0		•	4	•	•
Dependent: less than \$10,000	Unweignted size	334	607	38	• •	• 1	•	•
	Weighted size	52,326	39,868	8,141	•		•	•
	SE weighted	6,864	5,369	2,563	*	•	*	*
Dependent: \$10,000-\$19,999	Unweighted size	259	221	*	*	*	*	*
	Weighted size	42,479	34,984	*	*	*	*	*
	SE weighted	4,715	4,011	•	•	*	*	*
Dependent: \$20,000-\$29,999	Unweighted size	206	167	*	*	•	*	*
	Weighted size	37,042	29,275	*	*	*	•	*
	SE weighted	4,695	3,784	•	*	*	•	*
		į		•	•	4	•	4
Dependent: \$30,000-\$39,999	Unweignted size	1/4	147	•	•		•	•
	Weighted size	29,709	24,059	•	*	*	*	*
	SE weighted	3,351	2,818	*	*	•		*
Denondant: €40 000-€40 000	I Inwighted size	153	121	*	*	*	•	*
Dependent arto,000-447,777	Oliweighted Size	761	171	•		•	• •	
	Weighted size	27,680	21,587	•	•	•	•	•
	SE weighted	3,765	3,259	*	*	•	*	*
Dependent: \$50,000-\$59,999	Unweighted size	117	92	*	*	•	•	•
•	Weighted size	20,255	15,311	*	•	•	•	*
	SE weighted	2,864	2,383	•	*	•	•	•
Dependent: \$60,000-\$69,999	Unweighted size	100	79	•	*	•	•	#
•	Weighted size	15,422	11,340	*	•	*	•	*
	SE weighted	2,222	1,720	•	•	*	*	*
Dependent: \$70,000-\$79,999	Unweighted size	28	43	*	*	*	*	*
•	Weighted size	14,006	10,407	•	•	*	•	*
	SE weighted	2,671	2,443	*	*	*	*	
			:					

Table G.6-Number of students enrolled in postsecondary institutions by family income and student level for private, for-profit, institutions (continued)

							Unclassified	Graduate/first-
		Total	Freshman	Sophomore	Junior	Senior	undergraduate	professional
Dependent: \$80,000-\$99,999	Unweighted size	83	62	*	*	*	*	*
	Weighted size	17,304	12,537	*	•	*	•	•
	SE weighted	2,892	2,395	•	*	•	•	*
Dependent: \$100,000 or more	Unweighted size	78	28	*	•	•	*	•
•	Weighted size	15,317	10,275	*	•	*	*	*
	SE weighted	2,624	2,080	•	•	•	•	•
Independent: less than \$5,000	Unweighted size	973	815	\$9	*	•	72	*
	Weighted size	160,380	132,104	12,192	*	•	11.805	*
	SE weighted	13,383	11,660	2,262	•	•	3,495	•
Independent: \$5,000-\$9,999	Unweighted size	786	625	61	•	*	74	•
	Weighted size	136,574	102,054	12,381	*	*	15,890	*
	SE weighted	10,715	9,141	2,061	•	•	5,174	•
Independent: \$10,000-\$19,999	Unweighted size	944	713	92	*	•	104	•
-	Weighted size	163,947	117,692	15,780	*	•	18,709	•
	SE weighted	11,834	10,387	3,076	•	•	5,001	•
Independent: \$20,000-\$29,999	Unweighted size	513	361	41	*	•	72	•
	Weighted size	89,266	60,554	6,913	•	•	13,411	•
	SE weighted	8,075	6,302	1,384	*	•	4,518	•
Independent: \$30,000-\$49,999	Unweighted size	422	255	45	•	•	55	33
	Weighted size	85,645	47,089	9,685	*	*	12,009	11,947
	SE weighted	10,411	6,412	2,210	•	•	3,313	089'9
Independent: \$50,000 or more	Unweighted size	308	152	36	31	•	36	43
		64,822	27,730	6,620	4,618	*	7,066	17,037
	SE weighted	11,096	4,742	2,129	1,590	*	2,439	8,584

\*Insufficient number of cases for reliable estimation. Graduate students are independent students.

Table G.7—Number of students enrolled in postsecondary institutions by family income and student level for Public, 2-year institutions

							Unclassified	Graduate/first-
		Total	Freshman	Sophomore	Junior	Senior	undergraduate	professional
TOTAL	Unweighted size	6,167	4,631	1,186	53	*	287	*
	Weighted size	7,631,866	5,057,866	2,083,708	79,338	*	399,392	*
	SE weighted	253,955	172,278	119,974	18,006	*	76,060	*
Denendent: less than \$10,000	Unweighted size	312	262	42	*	*	.*	*
	Weighted size	277.759	213,484	57.229	*	*	*	*
	SE weighted	27,166	21,141	12,403	*	*	*	*
Dependent: \$10,000-\$19,999	Unweighted size	313	264	39	*		*	*
	Weighted size	289,789	221,490	55,564	*	*	*	*
	SE weighted	25,006	21,703	12,802	*	*	*	•
Dependent: \$20,000-\$29,999	Unweighted size	370	297	57	•	*	*	#
•	Weighted size	395,548	276,504	96,705	*	*	*	*
	SE weighted	35,333	25,705	15,187	*	*	*	#
Dependent: \$30,000-\$39,999	Unweighted size	301	236	58	*	*	*	**
•	Weighted size	362,805	242,333	108,834	*	*	**	#
	SE weighted	29,089	21,939	17,373	*	*	*	₩
Dependent: \$40,000-\$49,999	Unweighted size	337	277	49	*	*	*	4
•	Weighted size	369,334	268,755	81,642	*	*	*	*
	SE weighted	31,200	25,328	13,393	*	*	#	*
Dependent: \$50,000-\$59,999	Unweighted size	290	246	35	*	*	*	#
•	Weighted size	347,955	282,842	55,549	*	*	*	#
	SE weighted	33,239	28,880	11,557	*	*	뀨	*
Dependent: \$60,000-\$69,999	Unweighted size	197	167	#	*	*	45	#
•	Weighted size	263,297	205,179	*	*	*	#	**
	SE weighted	27,892	23,253	*	*	*	#	#
Dependent: \$70,000-\$79,999	Unweighted size	168	134	*	*	*	*	*
•	Weighted size	198,431	137,508	*	*	*	•	*
	SE weighted	20,362	16,407	*	*	*	*	*



Table G.7-Number of students enrolled in postsecondary institutions by family income and student level for public, 2-year institutions (continued)

							Unclassified	Graduate/first-
		Total	Freshman	Sophomore	Junior	Senior	undergraduate	professional
Dependent: \$80,000-\$99,999	Unweighted size	175	135	32	*	*	*	*
	Weighted size	219,130	146,092	62,157	*	*	*	*
	SE weighted	23,449	17,770	14,006	*	*	*	*
Dependent: \$100,000 or more	Unweighted size	171	147	*	*	*	*	*
	Weighted size	216,394	174.882	*	*	*	*	*
	SE weighted	29,137	26,040	*	*	*	*	**
Independent: less than \$5 000	I Inweiohted size	553	407	115	*	*	*	*
	Weighted size	540.451	138 135	166 389	*	*	*	•
	SE weighted	36,464	25,144	19,846	*	*	*	•
Independent: \$5,000-\$9,999	Unweighted size	545	363	144	*	*	30	*
	Weighted size	652,946	366,979	242,261	*	*	32.392	•
	SE weighted	41,650	30,034	24,977	*	*	11,197	*
Independent: \$10,000-\$19,999	Unweighted size	844	919	177.00	*	*	44	*
	Weighted size	1,087,970	712,963	298,060.00	*	*	68,914	*
	SE weighted	62,502	47,694	30,200.34	*	*	15,484	*
Independent: \$20,000-\$29,999	Unweighted size	292	380	134.00	*	*	46	*
	Weighted size	842,114	514,215	266,150.00	*	*	52,713	*
	SE weighted	58,933	42,996	27,937.15	*	*	14,216	*
Independent: \$30,000-\$49,999	Unweighted size	582	387	143.00	*	*	45	*
	Weighted size	878,948	515,851	273,634.00	*	*	76,567	*
	SE weighted	57,118	37,673	32,267.37	*	*	14,480	*
Independent: \$50,000 or more	Unweighted size	442	313	95.00	*	*	*	*
	Weighted size	688,995	440,454	194,284.00	*	*	*	*
	SE weighted	55,315	39,593	24.741.84	*	*	*	*

\*Insufficient number of cases for reliable estimation. Graduate students are independent students.

Table G.8—Number of students enrolled in postsecondary institutions by family income and tuition for all institutions

Weighted size   19,375,435   8,178,051   3,279,435   8,178,051   3,279,435   8,178,051   3,279,435   8,178,051   3,279,435   3,279,379   2,082,2792   1,255,703   8,04,256   485,717   404,459   347,30   2,032,379   2,032,37			Total	\$0-\$999	\$1,000- \$1,999	\$2,000- \$2,999	\$3,000- \$3,999	\$4,000- <b>\$</b> 4,999	\$5,000- \$5,999	\$6,000- \$6,999	\$7,000- \$7,999
Weighted size Sizewighted 19,375,435 8,178,051 3,299,380 2,082,292 1,255,703 864,256 485,717 404,459 347,300 23,056 1,000 4,00	OTAL	Unweighted size	48,389	10,328	7,771	6,223	4,376	3,026	2,058	1,851	1,541
SE weighted size   2,346   410   446   357   204   414   36,189   34,730   29,350   20,000-19,999   Unweighted size   74,31,97   25,544   145,666   86,596   54,523   40,342   19,23   18,655   15,76   36,55   36,5		•		•	3,259,839	2,082,292	1,255,703	864,256	485,717	404,459	342,181
Weighted size SE weighted 32,256 21,845 149,666 88,596 54,523 40,342 19,823 18,635 15,75   Septendent: \$10,000-\$19,999		•							36,198	34,730	29,362
Seweighted   35,256   21,845   14,727   9,557   7,111   6,902   4,013   3,143   3,05	Dependent: less than \$10,000	Unweighted size	2,346	410	446	357	204	141	86	106	84
	,	Weighted size	743,197	255,644	149,666	88,596	54,523	40,342	19,823	18,635	15,792
Weighted size   Se weighted   32,213   22,929   14,309   9,007   6,221   8,170   3,957   3,378   2,925   2,926   2,926   2,927   2,926   2,927   3,778   2,925   2,926   2,927   2,926   2,927   2,926   2,927   2,926   2,927   2,926   2,927   2,926   2,927   2,926   2,927   2,9		SE weighted	35,256	21,845	14,727	9;557	7,111	6,902	4,013	3,143	3,091
SE weighted 32,213 22,002 14,305 9,007 6,271 8,170 3,957 3,378 2,95	Dependent: \$10,000-\$19,999	Unweighted size	2,560	430	467	386					74
Dependent: \$20,000.\$29,999	-	Weighted size	803,725	269,933	161,391	101,186	56,589	47,027	•		14,685
Weighted size   968,776   333,140   198,439   111,345   76,762   46,384   21,174   19,905   203,335   3,336		SE weighted	32,213	22,092	14,305	9,007	6,271	8,170	3,957	3,378	2,934
Dependent: \$30,000-\$39,999	Dependent: \$20,000-\$29,999	Unweighted size	2,821	442	509	399	317	164	102		88
Dependent: \$30,000-\$39,999	•	Weighted size	968,776	333,140	198,439	111,345	76,762	46,384	21,174	19,905	20,082
Weighted size SE weighted SE weighted SE weighted SE weighted SE weighted SE severage Proposed SE weighted SE severage Proposed SE weighted SE weighted SE weighted SE weighted SE weighted SE severage Proposed SE weighted S		SE weighted	41,123	31,963	16,823	9,862	7,817	6,822	3,336	3,326	3,318
Weighted size   907,019   281,229   176,023   117,432   70,159   44,486   21,925   23,028   13,35   24,419   2,44   2,45   2,4	Dependent: \$30,000-\$39,999	Unweighted size	2,610	380	438	362	274	153	106	103	68
SE weighted   34,572   22,582   15,011   11,745   7,464   6,676   3,613   4,419   2,44	*	•	•		176,023	117,432	70,159	44,486	21,925	23,028	13,350
Weighted size SE weight	•	-	•		15,011	11,745	7,464	6,676	3,613	4,419	2,443
Weighted size	Dependent: \$40,000-\$49,999	Unweighted size	2,772	442	472	393	307	156			57
SE weighted   37,563   26,740   15,223   10,382   8,667   7,613   3,507   4,164   2,667   2,668   2,668   2,480   33,6   425   33,981   67,870   47,404   21,759   15,886   10,48   27,870   10,48   27,870   10,49   12,657   8,197   6,628   3,264   2,523   2,13   10,382   10,382   10,48   10,4		•		312,729	176,350	115,321	83,925	45,321	20,987	•	14,045
Weighted size   SE weighted		•	•			10,382	8,667	7,613	3,507	4,164	2,669
Weighted size   917,614   277,870   194,064   132,981   67,870   47,404   21,759   15,886   10,48	Dependent: \$50,000-\$59,999	Unweighted size	2,480	336	425	396	269	155	96	77	49
SE weighted   38,869   26,366   17,699   12,657   8,197   6,628   3,264   2,523   2,15	* ·	•	•			132,981	67,870	47,404	21,759	15,886	10,483
Weighted size SE weighted 33,426 23,916 12,038 106,316 80,453 36,186 23,882 13,473 11,00			•	26,366	17,699	12,657	8,197	6,628	3,264	2,523	2,138
Weighted size   1767,506   230,568   120,383   106,316   80,453   36,186   23,882   13,473   11,05	Dependent: \$60,000-\$69,999	Unweighted size	2,197	265	305	323	277	117	93	69	54
Dependent: \$70,000-\$79,999		•	,	230,568	120,383	106,316	80,453	36,186	23,882	13,473	11,033
Weighted size   588,248   173,828   89,814   89,994   50,910   27,956   18,513   12,588   11,77   259   234   137   84   71   259   234   234   236   234   236   234   236   234   236   234   236   234   236   234   236   234   236   234   236   234   236   234   236   234   236   234   236   234   236   234   236   234   236   236   234   236   236   234   236		•	33,426	23,916	12,301	11,531	8,125	6,111	4,107	2,198	2,289
Weighted size   \$88,248   173,828   89,894   \$9,994   \$0,910   \$27,956   \$18,513   \$12,588   \$11,77   \$12,900   \$12,000   \$1	Dependent: \$70,000-\$79,999	Unweighted size	1,706	219	227	282	187	94	72	60	41
Dependent: \$80,000-\$99,999	• , ,	Weighted size	588,248	173,828	89,814	89,994	50,910	27,956	18,513	12,588	11,771
Weighted size   SE weighted   SE SE weighted   SE SE weighted   SE SE			26,265	18,437	9,491	8,937	6,035	4,110	3,461	2,681	2,282
Weighted size   SE weighted   Ze   SE weighted   SE Weighted SIZe   SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE Weighted SIZe   SE SE Weighted SIZ	Dependent: \$80.000-\$99.999	Unweighted size	2,061	217	259	260	234	137	84	71	53
Dependent: \$100,000 or more Unweighted size SE weighted			687,985	178,835	116,960	86,675	57,501	45,958	19,568	16,086	11,476
Weighted size   SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE weighted   SE SE SE SE SE SE SE SE SE SE SE SE SE		•	30,172	18,278	15,213	9,019	6,211	7,622	3,585	2,587	2,741
Weighted size SE weighted 41,408 24,440 13,460 13,530 8,452 111,121 4,274 3,015 3,86 and pendent: less than \$5,000 Unweighted size 1,632,652 561,018 273,578 183,831 115,938 85,907 54,174 56,344 49,00 sE weighted 47,673 33,977 17,311 12,549 9,220 8,636 6,016 7,944 7,90 and pendent: \$5,000-\$9,999 Unweighted size Weighted size 1,542,179 666,551 253,335 168,656 93,717 63,912 42,701 36,124 41,60 sE weighted 48,8220 39,572 16,076 12,291 8,094 5,825 4,936 5,367 39,60 sE weighted 5ize Weighted size 2,382,658 1,232,929 385,435 219,683 101,072 85,605 57,963 54,357 39,60 sE weighted 5ize Weighted size 2,382,658 1,232,929 385,435 219,683 101,072 85,605 57,963 54,357 39,60 sE weighted 5ize Weighted size 1,772,544 1,009,055 272,820 132,380 69,707 59,630 31,296 31,980 26,59 sE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 4,293 3,90 and pendent: \$30,000-\$49,999 Unweighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77 sE weighted 5ize 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77 sE weighted 5ize 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77 sE weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77 sE weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77 sE weighted size 3,078 1,282 556 314 228 163 109 76 weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,00 se weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77 sE weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,00 se weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77 sE weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,00 se weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77 sE weighted size 2,013,442 1,170,0355 275,202 152,664 99,221 53,647 35,874 21,293 19,00 se weighted size 2,013,442 1,000,035 275,202 152,664 99,221 53,647 35,874 21,	Dependent: \$100,000 or more	Unweighted size	2,663	209	270	312	236	165	102	76	74
Unweighted size   S,190   863   752   621   426   364   264   286   205   20	•	Weighted size	887,638	179,310	107,564	119,023	76,283	67,050	24,393	17,146	21,743
Weighted size SE weighted 47,673 33,977 17,311 12,549 9,220 8,636 6,016 7,944 7,900   Independent: \$5,000-\$9,999   Unweighted size Weighted size 1,542,179 666,551 253,335 168,656 93,717 63,912 42,701 36,124 41,610   SE weighted 48,220 39,572 16,076 12,291 8,094 5,825 4,936 5,367 5,300   Independent: \$10,000-\$19,999   Unweighted size 2,382,658 1,232,929 385,435 219,683 101,072 85,605 57,963 54,357 39,600   SE weighted 71,974 61,831 22,563 15,607 7,834 7,634 7,179 7,835 5,200   Independent: \$20,000-\$29,999   Unweighted size 3,363 1,124 588 348 229 223 144 124 100   Weighted size 1,772,544 1,009,055 272,820 132,380 69,707 59,630 31,296 31,980 26,500   SE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 4,293 3,900   Independent: \$30,000-\$49,999   Unweighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,700   SE weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,700   SE weighted size 3,078 1,282 556 314 228 163 109 76   SE weighted size 3,078 1,282 556 314 228 163 109 76   SE weighted size 4,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,000   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,445   SE weighted 69,022 3,428 3,428 3,428 3,428			41,408	24,440	13,460	13,530	8,452	11,121	4,274	3,015	3,862
Weighted size SE weighted         1,632,652 SE weighted         561,018 273,578 183,831 115,938 85,907 54,174 56,344 49,00 7,900 8,636 6,016 7,944 7,900 8,636 6,016 7,944 7,900 8,636 6,016 7,944 7,900 8,636 6,016 7,944 7,900 8,636 8,636 6,016 7,944 7,900 8,636 8,636 6,016 7,944 7,900 8,630 8,636 8,637 8,637 8,630 8,636 8,636 8,636 8,636 8,636 8,637 8,637 8,630 8,636 8,63	independent: less than \$5,000	Unweighted size	5,190	863	752	621	426	364	264	286	269
Independent: \$5,000-\$9,999 Unweighted size Weighted size 1,542,179 666,551 253,335 168,656 93,717 63,912 42,701 36,124 41,60 SE weighted 48,220 39,572 16,076 12,291 8,094 5,825 4,936 5,367 5,35 (andependent: \$10,000-\$19,999 Unweighted size 2,382,658 1,232,929 385,435 219,683 101,072 85,605 57,963 54,357 39,65 SE weighted 71,974 61,831 22,563 15,607 7,834 7,634 7,179 7,835 5,25 (andependent: \$20,000-\$29,999 Unweighted size 3,363 1,124 588 348 229 223 144 124 164 Weighted size Weighted size 1,772,544 1,009,055 272,820 132,380 69,707 59,630 31,296 31,980 26,55 SE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 4,293 3,95 (andependent: \$30,000-\$49,999 Unweighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77	•	Weighted size	1,632,652	561,018	273,578	183,831	115,938	85,907	54,174		49,006
Weighted size 1,542,179 666,551 253,335 168,656 93,717 63,912 42,701 36,124 41,60 SE weighted 48,220 39,572 16,076 12,291 8,094 5,825 4,936 5,367 5,335 100,000-\$19,999 Unweighted size 2,382,658 1,232,929 385,435 219,683 101,072 85,605 57,963 54,357 39,64 SE weighted 71,974 61,831 22,563 15,607 7,834 7,634 7,179 7,835 5,235 100,000-\$29,999 Unweighted size 3,363 1,124 588 348 229 223 144 124 100 Weighted size 1,772,544 1,009,055 272,820 132,380 69,707 59,630 31,296 31,980 26,555 SE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 4,293 3,90 100 100,000-\$49,999 Unweighted size 3,582 1,337 631 358 271 212 155 101 Weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,700 SE weighted 68,578 58,021 19,002 12,495 9,743 6,404 5,691 4,205 3,50 100 100 100 100 100 100 100 100 100 1		SE weighted	47,673	33,977	17,311	12,549	9,220	8,636	6,016	7,944	7,906
Weighted size SE weighted 48,220 39,572 16,076 12,291 8,094 5,825 4,936 5,367 5,335 168,656 93,717 63,912 42,701 36,124 41,60   SE weighted 48,220 39,572 16,076 12,291 8,094 5,825 4,936 5,367 5,367 5,335 168,094 5,825 4,936 5,367 5,367 5,335 168,094 5,825 4,936 5,367 5,367 5,335 168,094 5,825 4,936 5,367 5,367 5,367 1,367	independent: \$5,000-\$9,999	Unweighted size	3,804	860	573	498	315	258	191	171	211
SE weighted 48,220 39,572 16,076 12,291 8,094 5,825 4,936 5,367 5,367  Independent: \$10,000-\$19,999 Unweighted size	-			666,551	253,335						41,609
Weighted size 2,382,658 1,232,929 385,435 219,683 101,072 85,605 57,963 54,357 39,64   SE weighted 71,974 61,831 22,563 15,607 7,834 7,634 7,179 7,835 5,25    Independent: \$20,000-\$29,999 Unweighted size 3,363 1,124 588 348 229 223 144 124 104   Weighted size 1,772,544 1,009,055 272,820 132,380 69,707 59,630 31,296 31,980 26,555   SE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 4,293 3,95    Independent: \$30,000-\$49,999 Unweighted size 3,582 1,337 631 358 271 212 155 101   Weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,705   SE weighted 68,578 58,021 19,002 12,495 9,743 6,404 5,691 4,205 3,5    Independent: \$50,000 or more Unweighted size 3,078 1,282 556 314 228 163 109 76   Weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,05   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,447 3,4		SE weighted	48,220	39,572	16,076	12,291	8,094	5,825	4,936	5,367	5,329
Weighted size SE weighted 71,974 61,831 22,563 15,607 7,834 7,634 7,179 7,835 5,25    Independent: \$20,000-\$29,999 Unweighted size 3,363 1,124 588 348 229 223 144 124 100,000    Weighted size 1,772,544 1,009,055 272,820 132,380 69,707 59,630 31,296 31,980 26,55    SE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 4,293 3,95    Independent: \$30,000-\$49,999 Unweighted size 3,582 1,337 631 358 271 212 155 101    Weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,70    SE weighted 68,578 58,021 19,002 12,495 9,743 6,404 5,691 4,205 3,5    Independent: \$50,000 or more Unweighted size 3,078 1,282 556 314 228 163 109 76    Weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,00    SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,447 3,	independent: \$10,000-\$19,999	Unweighted size	5,156	1,512	853	614	359	340	259	219	184
SE weighted 71,974 61,831 22,563 15,607 7,834 7,634 7,179 7,835 5,25    Independent: \$20,000-\$29,999   Unweighted size	•	•					101,072	85,605	57,963	54,357	39,64
Weighted size SE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 4,293 3,980 10,000-\$49,999 Unweighted size SE weighted 68,578 58,021 19,002 12,495 9,743 6,404 5,691 4,205 3,582 1,337 631 358 271 212 155 101 25,484 21,778 212 212 25,484 21,778 212 212 25,484 21,778 212 212 25,484 21,778 212 212 25,484 21,778 212 212 25,484 21,778 212 212 212 212 212 212 212 212 2						15,607	7,834	7,634	7,179	7,835	5,254
Weighted size SE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 31,980 26,59   Weighted size SE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 4,293 3,99   Weighted size 3,582 1,337 631 358 271 212 155 101   Weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77   SE weighted 68,578 58,021 19,002 12,495 9,743 6,404 5,691 4,205 3,5   Weighted size 3,078 1,282 556 314 228 163 109 76   Weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,09   SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,447	independent: \$20,000-\$29,999	Unweighted size	3,363	1,124	588	348	229				102
SE weighted 66,106 56,678 18,686 10,200 6,329 5,967 4,550 4,293 3,9 independent: \$30,000-\$49,999 Unweighted size 3,582 1,337 631 358 271 212 155 101 Weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,77 SE weighted 68,578 58,021 19,002 12,495 9,743 6,404 5,691 4,205 3,5 independent: \$50,000 or more Unweighted size 3,078 1,282 556 314 228 163 109 76 Weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,00 SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,447	*							59,630	31,296	31,980	26,59
Weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,76 SE weighted 68,578 58,021 19,002 12,495 9,743 6,404 5,691 4,205 3,5 Independent: \$50,000 or more Unweighted size 3,078 1,282 556 314 228 163 109 76 Weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,09 SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,44										4,293	3,91
Weighted size 2,013,442 1,145,057 308,815 156,209 101,073 67,441 49,121 25,484 21,76 SE weighted 68,578 58,021 19,002 12,495 9,743 6,404 5,691 4,205 3,5 Independent: \$50,000 or more Unweighted size 3,078 1,282 556 314 228 163 109 76 Weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,09 SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,44	Independent: \$30.000-\$49 999	Unweighted size	3.582	1.337	631	358	271	212	155	101	75
SE weighted 68,578 58,021 19,002 12,495 9,743 6,404 5,691 4,205 3,5  Independent: \$50,000 or more Unweighted size 3,078 1,282 556 314 228 163 109 76  Weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,01  SE weighted 69,323 58,038 17,956 12,128 9,659 5,968 4,595 3,427 3,44				•							21,76
Weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,01		-									3,518
Weighted size 1,815,344 1,070,355 275,202 152,664 99,221 53,647 35,874 21,293 19,01	Independent: \$50 000 or more	Unweighted size	3 072	1 282	556	314	228	163	109	76	51
SE weighted 69 323 58 038 17 956 12 128 9 659 5.968 4.595 3.427 3.4	mospendent. #30,000 or more		•								19,09
SE Weighted 07,223 38,036 17,230 12,126 2,037 3,500 1,250 2,120 2,120		SE weighted	69,323	58,038	17,956	12,128	9,659	5,968	4,595	3,427	3,43



Table G.8—Number of students enrolled in postsecondary institutions by family income and tuition for all institutions (continued)

		\$8,000- \$8,999	\$9,000- \$9,999	\$10,000- \$10,999	\$11,000- \$11,999	\$12,000- \$12,999	\$13,000- \$13,999	\$14,000- \$14,999	\$15,000 or More	Missing
TOTAL	Unweighted size	1,567	1,115	847	673	830	1,043	952	3,676	512
	Weighted size	360,591	259,068	226,576	167,996	180,886	201,513	189,770	700,168	216,369
	SE weighted	37,615	28,707	28,080	26,771	24,080	28,469	31,903	66,092	34,395
Dependent: less than \$10,000	Unweighted size	61	44	37	32	52	37	49	166	34
•	Weighted size	13,422	6,855	8,176	6,341	8,478	6,584	8,108	33,638	8,574
	SE weighted	3,083	1,497	1,928	1,454	2,045	1,706	1,840	9,229	2,457
Dependent: \$10,000-\$19,999	Unweighted size	70	67	53	36	42	49	47	174	•
	Weighted size	14,258	14,109	12,440	8,224	7,353	7,475	8,553	30,456	*
	SE weighted	2,960	2,905	3,065	2,553	1,781	1,773	2,258	4,637	•
Dependent: \$20,000-\$29,999	Unweighted size	73	71	65	46	57	81	76	210	•
	Weighted size	19,324	13,013	15,768	9,974	9,472	14,605	15,506	37,241	•
	SE weighted	3,783	2,620	3,553	2,551	2,170	3,399	3,587	6,166	•
Dependent: \$30,000-\$39,999	Unweighted size	80	65	62	49	68	65	81	233	•
	Weighted size	20,262	14,606	12,741	11,588	12,296	13,471	14,448	39,449	•
	SE weighted	3,405	2,951	2,831	3,007	2,893	2,906	3,657	5,404	•
Dependent: \$40,000-\$49,999	Unweighted size	81	72	51	49	56	100	72	251	•
- ,,	Weighted size	20,590	15,934	12,428	10,206	9,765	18,615	13,777	44,315	•
	SE weighted	4,295	2,859	2,798	2,525	2,323	4,102	4,029	7,421	•
Dependent: \$50,000-\$59,999	Unweighted size	57	76	38	51	63	84	83	216	
200000000000000000000000000000000000000	Weighted size	18,374	18,916	8,300	11,922	14,664	18,650	16,146	39,120	
	SE weighted	3,828	4,157	1,948	3,938	3,093	4,195	4,397	5,900	
Dependent: \$60,000-\$69,999	Unweighted size	59	69	55	37	65	67	65	268	
<b>20pondo</b> m: 400,000 <b>3</b> 00,,222	Weighted size	14,426	14,042	13,756	9,697	14,447	13,562	13,058	48,966	
	SE weighted	3,165	2,811	3,095	2,627	4,044	3,765	3,890	6,367	•
Dependent: \$70,000-\$79,999	Unweighted size	59		41	30	43	72	50	197	
Dependent: 970,000-977,777	Weighted size	16,186		11,309	9,780	7,580	14,837	9,355	36,293	·
	SE weighted	3,232	•	3,600	2,599	2,087	3,823	2,142	5,165	•
Dependent: \$80,000-\$99,999	Unweighted size	68	52	53	37	57	78	91	295	
25 opendent: 000,000 055,555	Weighted size	17,160	10,136	13,151	9,848	12,220	16,785	19,231	51,639	•
	SE weighted	3,127	2,439	4,134	2,568	2,582	3,603	5,294	6,885	•
Dependent: \$100,000 or more	Unweighted size	97	113	69	60	79	87	130	572	•
pependeni. 9100,000 or more	Weighted size	27,747	29,620	18,040	15,540	19,881	18,624	21,833	115,163	•
	SE weighted	5,703	8,247	4,278	3,398	3,974	3,517	4,948	15,616	•
Independent: less than \$5,000	Unweighted size	275	138	75	56	72	131	64	422	103
and period in less than 95,000	Weighted size	46,183	26,323	19,492	12,416	14,015	20,716	64 12,514	432 73,381	102
	SE weighted	7,600	3,412	3,187	2,498	2,656	5,703	2,090	6,650	27,816 5,610
Independent: \$5,000-\$9,999	Unweighted size	137	89	49	62	44	49	40	202	
macpendent. \$5,000-\$5,555	Weighted size	28,086				10,511			202	55 28 550
	SE weighted	4,506	23,976 3,620	15,628 3,532	14,362 5,618	2,238	7,914 2,066	7,256 1,485	39,291 4,466	28,550 10,433
Independent: \$10,000-\$19,999	Unweighted size	206	81	58	47	£1	57	40	102	
are openicent. #10,000-#17,777	Weighted size	46,451	16,671	38 17,486	47 13,443	51 14,436	57 10,826	48 14,962	182 39,837	86 21 866
	SE weighted	7,476	2,853	2,876	3,558	2,908	2,304	3,261	5,325	31,856 7,527
Independent: \$20,000-\$29,999	Unweighted size	116	60	£0	21	•				
20,000-927,777	Weighted size	25,505	18,922	58 21,205	31 9,503	•	•	:	95 22 82 1	42
	SE weighted	3,949	3,188	3,816	2,645	•	•	•	22,821 3,641	18,831 5,207
Independent: \$30,000-\$49,999	Unweighted size	82	۲۵	£3	•	30	22			
undependent, #30,000-\$47,779	Weighted size	82 19,881	60 20 152	53 17 01 8		30	33	-	103	38
	SE weighted	3,596	20,152 3,432	17,918 3,476	•	9,369 2,249	6,688 1,475	•	26,027 3,855	27,629 10,057
Indonendoute ESO DOD	-									,
Independent: \$50,000 or more	Unweighted size	46	33	30	•		•	•	80	•
	Weighted size	12,736	9,974	8,738	•	•	•	•	22,531	•

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.



Table G.9—Number of sudents enrolled in postsecondary institutions by family income and tuition for undergraduate students

		Total	\$0 <b>-</b> \$9 <del>9</del> 9	\$1,000- \$1,999	\$2,000- \$2,999	\$3,000- \$3,999	\$4,000- \$4,9 <del>9</del> 9	\$5,000- \$5,999	\$6,000- \$6,999	\$7,000- \$7,999
TOTAL	Unweighted size	41,467	9,191	6,863	5,600	3,864	2,545	1,729	1,577	1,260
.01.12	Weighted size	16,663,457	7,495,161	2,778,715	1,792,623	1,031,958	694,359	367,622	306,716	257,255
	SE weighted	299,076	242,523	113,819	86,065	60,662	65,434	34,889	31,864	27,415
Dependent: less than \$10,000	Unweighted size	2,346	410	446	357	204	141	86	106	84
•	Weighted size	743,197	255,644	149,666	88,596	54,523	40,342	19,823	18,635	15,792
	SE weighted	35,256	21,845	14,727	9,557	7,111	6,902	4,013	3,143	3,091
Dependent: \$10,000-\$19,999	Unweighted size	2,560	430	467	386	243	184	99	110	74
, , ,	Weighted size	803,725	269,933	161,391	101,186	56,589	47,027	22,564	19,737	14,685
	SE weighted	32,213	22,092	14,305	9,007	6,271	8,170	3,957	3,378	2,934
Dependent: \$20,000-\$29,999	Unweighted size	2,821	442	509	399	317	164	102	105	88
sopondent. 420,444 425,555	Weighted size	968,776	333,140	198,439	111,345	76,762	46,384	21,174	19,905	20,082
	SE weighted	41,123	31,963	16,823	9,862	7,817	6,822	3,336	3,326	3,318
Dependent: \$30,000-\$39,999	Unweighted size	2,610	380	438	362	274	153	106	103	68
	Weighted size	907,019	281,229	176,023	117,432	70,159	44,486	21,925	23,028	13,350
	SE weighted	34,572	22,582	15,011	11,745	7,464	6,676	3,613	4,419	2,443
Dependent: \$40,000-\$49,999	Unweighted size	2,772	442	472	393	307	156	96	97	57
	Weighted size	944,908	312,729	176,350	115,321	83,925	45,321	20,987	22,393	14,045
	SE weighted	37,563	26,740	15,223	10,382	8,667	7,613	3,507	4,164	2,669
Dependent: \$50,000-\$59,999	Unweighted size	2,480	336	425	396	269	155	96	77	49
Sependent: \$30,000-\$39,999	Weighted size	917,614	277,870	194,064	132,981	67,870	47,404	21,759	15,886	10,483
	SE weighted	38,869	26,366	17,699	12,657	8,197	6,628	3,264	2,523	2,138
Dependent: \$60,000-\$69,999	Unweighted size	2,196	265	305	322	277	117	93	69	54
Dependent: \$60,000-\$69,999	Weighted size	766,788	230,568	120,383	105,598	80,453	36,186	23,882	13,473	11,033
	SE weighted	33,417	23,916	12,301	11,485	8,125	6,111	4,107	2,198	2,289
Dependent: \$70,000-\$79,999	Unweighted size	1,705	219	226	282	187	94	72	60	41
Dependent. \$70,000-\$79,999	Weighted size	587,592	173,828	89,158	89,994	50,910	27,956	18,513	12,588	11,771
	SE weighted	26,249	18,437	9,474	8,937	6,035	4,110	3,461	2,681	2,282
Dependent: \$80,000-\$99,999	Unweighted size	2,061	217	259	260	234	137	84	71	53
Dependent: 300,000-477,777	Weighted size	687,985	178,835	116,960	86,675	57,501	45,958	19,568	16,086	11,476
	SE weighted	30,172	18,278	15,213	9,019	6,211	7,622	3,585	2,587	2,741
Dependent: \$100,000 or more	Unweighted size	2,663	209	270	312	236	165	102	76	74
bependent: \$100,000 or more	Weighted size	887,638	179,310	107,564	119,023	76,283	67,050	24,393	17,146	21,743
	SE weighted	41,408	24,440	13,460	13,530	8,452	11,121	4,274	3,015	3,862
Independent: less than \$5,000	Unweighted size	3,607	791	649	506	331	265	179	210	177
independent. less than \$5,000	Weighted size	1,244,098	526,144	232,583	144,553	86,142	59,125	32,244	35,613	28,127
	SE weighted	44,331	33,569	16,452	11,253	8,254	7,534	4,732	6,775	6,686
Independent: \$5,000-\$9,999	Unweighted size	2,878	789	481	405	247	195	138	127	154
паеренаент: \$3,000-\$9,999	Weighted size	1,240,619	628,132	210,972	130,298	67,804	45,181	23,892	23,319	26,555
	SE weighted	46,282	39,225	14,998	10,801	6,717	4,931	3,607	4,727	4,573
Independent: \$10,000-\$19,999	Unweighted size	3,935	1,352	680	507	280	230	194	160	143
macpendent. #10,000-#17,777	Weighted size	1,907,421	1,140,604	295,719	171,404	68,446	49,711	32,696	27,806	26,186
	SE weighted	68,621	61,276	20,642	14,371	5,670	5,719	5,901	4,545	4,540
Independent: \$20,000-\$29,999	Unweighted size	2,467	940	447	267	157	165	114	91	69
	Weighted size	1,379,075	897,685	198,181	93,673	37,709	38,096	21,841	17,908	13,40
•	SE weighted	62,794	55,626	16,582	8,750	4,228	4,816	4,015	2,992	2,656
Independent: \$30,000-\$49,999	Unweighted size	2,472	1,064	439	255	182	137	101	67	4
macpendent. #20,000-#77,777	Weighted size	1,478,628	976,142	197,738	100,120	56,999	34,366	24,741	12,572	12,28
	SE weighted	63,010	55,859	15,450	10,141	7,825	4,349	4,127	2,142	2,178
Independent: \$50,000 or more	Unweighted size	1,894	905	350	191	119	87	67	48	
muchennem. \$30,000 or more	Weighted size	1,198,374	833,368	153,524	84,424	39,883	19,766	17,620	10,621	



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Table G9—Number of students enrolled in postsecondary institutions by family income and tuition for undergraduate students (continued)

		\$8,000- \$8,999	\$9,000- \$9,999	\$10,000- \$10,999	\$11,000- \$11,999	\$12,000- \$12,999	\$13,000- \$13,999	\$14,000- \$14,999	\$15,000 or More	Missing
TOTAL	Unweighted size	1,179	928	676	573	693	818	827	2,733	411
	Weighted size	277,754	203,378	163,733	136,119	137,677	164,806	157,381	505,533	192,667
	SE weighted	34,317	27,191	25,826	25,624	22,814	26,860	31,266	60,412	33,884
Dependent: less than \$10,000	Unweighted size	61	44	37	32	52	37	49	166	34
-	Weighted size	13,422	6,855	8,176	6,341	8,478	6,584	8,108		
	SE weighted	3,083	1,497	1,928	1,454	2,045	1,706	1,840	33,638 9,229	8,574 2,457
D I #10 000 #10 000							·		,,,	_,,,,,,
Dependent: \$10,000-\$19,999	Unweighted size	70	67	53	36	42	49	47	174	•
	Weighted size SE weighted	14,258 2,960	14,109 2,905	12,440 3,065	8,224	7,353	7,475	8,553	30,456	•
	DD Weighted	2,700	2,903	3,003	2,553	1,781	1,773	2,258	4,637	0
Dependent: \$20,000-\$29,999	Unweighted size	73	71	65	46	57	81	76	210	•
	Weighted size	19,324	13,013	15,768	9,974	9,472	14,605	15,506	37,241	•
	SE weighted	3,783	2,620	3,553	2,551	2,170	3,399	3,587	6,166	0
Dependent: \$30,000-\$39,999	Unweighted size	80	65	62	49	68	65	81	233	•
	Weighted size	20,262	14,606	12,741	11,588	12,296	13,471	14,448	39,449	•
	SE weighted	3,405	2,951	2,831	3,007	2,893	2,906	3,657	5,404	0
Dependent: \$40,000-\$49,999	Unweighted size	81	72	51	49	56	100		241	•
	Weighted size	20,590	15,934	12,428	10,206	9,765		72	251	•
	SE weighted	4,295	2,859	2,798	2,525	2,323	18,615 4,102	13,777 4,029	44,315 7,421	0
	_	.,	2,000	2,,,,	2,525	<b>1,515</b>	4,102	4,027	7,421	U
Dependent: \$50,000-\$59,999	Unweighted size	57	76	38	51	63	84	83	216	•
	Weighted size	18,374	18,916	8,300	11,922	14,664	18,650	16,146	39,120	•
	SE weighted	3,828	4,157	1,948	3,938	3,093	4,195	4,397	5,900	0
Dependent: \$60,000-\$69,999	Unweighted size	59	69	55	37	65	67	65	268	•
	Weighted size	14,426	14,042	13,756	9,697	14,447	13,562	13,058	48,966	•
	SE weighted	3,165	2,811	3,095	2,627	4,044	3,765	3,890	6,367	0
Dependent: \$70,000-\$79,999	Unweighted size	59	•	41	30	43	72	50	197	•
, ,	Weighted size	16,186	•	11,309	9,780	7,580	14,837	9,355	36,293	•
	SE weighted	3,232	•	3,600	2,599	2,087	3,823	2,142	5,165	0
Dependent: \$80,000-\$99,999	Unweighted size	68	52	62	27					
5-p-macin. \$60,000-\$55,555	Weighted size	17,160	10,136	53 13,151	37 9,848	57 12,220	78 16 786	91	295	•
	SE weighted	3,127	2,439	4,134	2,568	2,582	16,785 3,603	19,231 5,294	51,639 6,885	•
D 1 - 6100.000			·			-,	-,	-,-,	0,003	·
Dependent: \$100,000 or more	Unweighted size	97	113	69	60	79	87	130	572	•
	Weighted size SE weighted	27,747	29,620	18,040	15,540	19,881	18,624	21,833	115,163	•
	SE weighted	5,703	8,247	4,278	3,398	3,974	3,517	4,948	15,616	0
Independent: less than \$5,000	Unweighted size	124	80	44	34	37	42	•	50	63
	Weighted size	22,291	15,352	10,031	6,693	6,455	7,790	•	7,780	-19,003
	SE weighted	4,337	2,533	2,085	1,766	1,850	2,869	•	1,455	4,918
Independent: \$5,000-\$9,999	Unweighted size	81	57	•	45	•	•	•	39	39
	Weighted size	14,511	12,299	•	9,159	•	•	•	6,348	25,603
•	SE weighted	3,617	2,389	•	5,356	•	•	•	1,233	10,383
Independent: \$10,000-\$19,999	Unweighted size	130	58	•	•					
	Weighted size	27,117	11,324	•	•	•				67
	SE weighted	6,028	2,376	•	•	•	•	•	•	28,490 7,387
		_								,,50,
Independent: \$20,000-\$29,999	Unweighted size Weighted size	74 16,044	33	*	•	•	•	•	•	•
	SE weighted	3,080	8,779 1,947		•	•	•	:	•	•
	-	-,	1,277				•	•	₹	0
ndependent: \$30,000-\$49,999	Unweighted size	43	30	•	•	•	•	•	•	30
	Weighted size	9,834	8,247	•	•	•	•	•	•	24,908
	SE weighted	2,341	1,921	•	•	•	•	•	•	9,987
ndependent: \$50,000 or more	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted									

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.



Table G.10—Number of students enrolled in postsecondary institutions by family income and tuition for graduate/first-professional students

		Total	\$0-\$999	\$1,000- \$1,999	\$2,000- \$2,999	\$3,000- \$3,999	\$4,000- \$4,999	\$5,000- \$5,999	\$6,000- \$6,999	\$7,000- \$7,999
OTAL	Unweighted size	6,922	1,137	908	623	512	481	329	274	28
OTAL	Weighted size	2,711,978	682,890	481,124	289,669	223,745	169,897	118,095	97,743	84,92
	SE weighted	82,544	36,048	25,216	16,726	16,950	13,882	9,773	13,749	9,02
ependent: less than \$10,000	Unweighted size		•	•	•	•			•	
ependent tobb than 910,000	Weighted size	•	•	•	•	•	•		*	
	SE weighted	•	•	•	•	•		*	*	
Pependent: \$10,000-\$19,999	Unweighted size		•	•	•	•	•	•	•	
ependent. Grojova Grojava	Weighted size		•		•	•		•	*	
	SE weighted	•	•	•	•	•	•	*	*	
ependent: \$20,000-\$29,999	Unweighted size		•	•	•	•	•	•	•	
ependent. \$20,000 \$25,555	Weighted size	•		•	•	•		•		
	SE weighted	•	•	•	•	•	•		•	
dant. \$20 000 \$20 000	Unweighted size		•	•	•	•	•	•		
Dependent: \$30,000-\$39,999	Weighted size			•	•	•		•	•	
	SE weighted	•	•	•	•	•	•	•	٥	
000 012 000 012 standard	Unweighted size		*	•	•	•	•	•	•	
Dependent: \$40,000-\$49,999	Weighted size	•	•	•		•		•	•	
	SE weighted	•	*	*	•	•	•	•	•	
Dependent: \$50,000-\$59,999	Unweighted size	•	•	•	•	•	•	•		
rependent. \$30,000-\$39,999	Weighted size		•	•		•			•	
	SE weighted	•	•	•	•	•	•	•	٠	
Dependent: \$60,000-\$69,999	Unweighted size	•		•	•	•	•	•	•	
еренает. 400,000-403,333	Weighted size	•	•	•		•		•	*	
	SE weighted	•	•	•	•	•		•	•	
Dependent: \$70,000-\$79,999	Unweighted size	•	•	•	•	•	•	•	•	
	Weighted size	*	*	•		•	•	*		
	SE weighted	•	•	•	•	•	•	•	•	
Dependent: \$80,000-\$99,999	Unweighted size	•	•	•	•	•	•	•		
•	Weighted size		•	•	•	•	•		*	
	SE weighted	•								
Dependent: \$100,000 or more	Unweighted size	•	•	•	•			•	•	
•	Weighted size	•	*	*	•	•	•			
	SE weighted	•	•	•	•	•	•	•	•	
ndependent: less than \$5,000	Unweighted size	1,583	72	103	115	95	99	85	76	•
•	Weighted size	388,554	34,874	40,995	39,278	29,796	26,782	21,930	20,731	20,8
	SE weighted	19,568	4,920	5,087	5,129	4,141	3,795	3,720	4,212	4,
ndependent: \$5,000-\$9,999	Unweighted size	926	71	92	93	68	63	53	44	
,	Weighted size	301,560	38,419	42,363	38,358	25,913	18,731	18,809	12,805	15,
	SE weighted	14,066	4,920	5,106	5,114	3,826	2,955	3,294	2,556	2,
ndependent: \$10,000-\$19,999	Unweighted size	1,221	160	173	107	79	110	65	59	
•	Weighted size	475,237	92,325	89,716	48,279	32,626	35,894	25,267	26,551	13,
	SE weighted	22,302	7,953	8,294	5,694	5,362	4,716	4,242	6,441	2,
ndependent: \$20,000-\$29,999	Unweighted size	896	184	141	81	72	58	30	33	
•	Weighted size	393,469	111,370	74,639	38,707	31,998	21,534	9,455	14,072	
	SE weighted	20,036	10,324	7,803	4,967	4,602	3,278	2,145	3,035	2,
ndependent: \$30,000-\$49,999	Unweighted size	1,110	273	192	103	89	75	54	34	
	Weighted size	534,814	168,915	111,077	56,089	44,074	33,075	24,380	12,912	
	SE weighted	25,380	14,257	10,090	6,553	5,747	4,820	3,908	3,537	
ndependent: \$50,000 or more	Unweighted size	1,184	377	206	123	109	76	42	•	
	Weighted size	616,970	236,987	121,678	68,240		33,881	18,254	•	12,
	SE weighted	29,943	16,806	11,174	7,279		5,163	3,543		2,

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Table G.10—Number of students enrolled in postsecondary institutions by family income and tuition for graduate/first-professional students (continued)

<u> </u>		\$8,000- \$8,999	\$9,000- \$9,999	\$10,000- \$10,999	\$11,000- \$11,999	\$12,000- \$12,999	\$13,000- \$13,999	\$14,000- \$14,999	\$15,000 or More	Missing
TOTAL	Unweighted size	388	187	171	100	137	225	125	943	101
	Weighted size	82,837	55,690	62,843	31,877	43,209	36,707	32,389	194,635	23,702
	SE weighted	15,547	6,888	9,111	5,994	6,791	9,983	5,664	17,478	4,609
Dependent: less than \$10,000	Unweighted size	•	•	•	•	•	•		•	
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
Dependent: \$10,000-\$19,999	Unweighted size	•	•	•	•					
	Weighted size	•	•	•		•				
	SE weighted	•	•	•	•	•	•		•	•
Dependent: \$20,000-\$29,999	Unweighted size	•	•	•		•				
	Weighted size	•		•	•		•			:
•	SE weighted	•	•	•	•	•	•	•	•	•
Dependent: \$30,000-\$39,999	Unweighted size									
2-pendent. #30,000-#37,777	Unweighted size Weighted size		*	•	:	-	•	•	•	•
	SE weighted	•	•		•	*	•	•	•	•
Denendant: \$40,000 640,000	_					_				
Dependent: \$40,000-\$49,999	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size SE weighted	•	•	:	•	:	•	•		•
	_							•	•	•
Dependent: \$50,000-\$59,999	Unweighted size		•		•	•	•	•	•	•
	Weighted size SE weighted	•	•	•	•	•	•	•	•	•
							•	·	·	•
Dependent: \$60,000-\$69,999	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•		•	•	•	•	•
	SE weighted	•	•	•	•	•	. •	•	•	•
Dependent: \$70,000-\$79,999	Unweighted size	•	•	•	•		•	•	•	•
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	. •	•
Dependent: \$80,000-\$99,999	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•	•	*	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
Dependent: \$100,000 or more	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
Independent: less than \$5,000	Unweighted size	151	58	31	•	35	89	39	382	39
	Weighted size	23,892	10,971	9,461	•	7,560	12,926	8,342	65,601	8,813
	SE weighted	6,268	2,167	2,450	•	1,888	4,960	1,768	6,431	2,529
Independent: \$5,000-\$9,999	Unweighted size	56	32	•	•	•	32	•	163	•
	Weighted size	13,575	11,677	•	•	•	4,982	•	32,943	•
	SE weighted	2,682	2,779	•	•	•	1,904	•	4,336	•
ndependent: \$10,000-\$19,999	Unweighted size	76	•	34	•	30	41	33	153	•
	Weighted size	19,334	•	12,172	•	10,484	7,493	11,314	33,850	•
	SE weighted	4,445	•	2,558	•	2,674	2,138	2,871	4,968	•
ndependent: \$20,000-\$29,999	Unweighted size	42	•	36	•	•	•	•	82	
	Weighted size	9,461	•	15,049	•	•	•	•	19,289	•
	SE weighted	2,423	•	3,401	•	•	•	•	3,584	•
ndependent: \$30,000-\$49,999	Unweighted size	39	30	•	•	•	•		95	
. , .	Weighted size	10,047	11,905	• .	•	•	•	•	23,986	
	SE weighted	2,746	2,897	•	•	•	•	•	3,775	•
ndependent: \$50,000 or more	Unweighted size	•	•	•	•	•	•	•	۷0	
	Weighted size	•	•	•	•	•	•	•	68 18,966	;
	SE weighted							•	3,296	

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.



Table G.11—Number of students enrolled in postsecondary institutions by family income and tuition for freshman/first-year students

		Total	\$0-\$999	\$1,000- \$1,999	\$2,000- \$2,999	\$3,000- \$3,999	\$4,000- \$4,999	\$5,000- \$5,999	\$6,000- \$6,999	\$7,000- \$7,999
	Manualahand alaa	24,326	5,829	3,815	2,993	2,211	1,512	1,157	1,076	858
OTAL	Unweighted size	8,390,721	4,527,794	1,322,674	665,148	353,724	278,776	174,976	157,642	130,613
	Weighted size SE weighted	190,091	156,482	72,882	44,292	26,057	28,147	23,216	23,094	18,407
				204	212	114	81	63	80	60
ependent: less than \$10,000	Unweighted size	1,501	306	294	212	20,055	14,713	10,512	10,758	7,712
	Weighted size	412,584	185,387	81,738	40,392		2,597	2,276	2,079	1,733
	SE weighted	23,779	16,492	10,568	5,585	3,599	2,391	2,270	2,075	1,
Dependent: \$10,000-\$19,999	Unweighted size	1,684	322	312	237	163	121	67	88	63
ependent: \$10,000 \$13,555	Weighted size	449,238	184,539	<b>99,</b> 291	44,089	27,215	21,265	10,265	12,250	9,757
	SE weighted	24,432	17,205	11,829	4,833	4,001	4,113	1,878	2,436	2,314
	** ** * * * * * *	1 770	316	350	234	209	97	77	79	53
Dependent: \$20,000-\$29,999	Unweighted size	1,779	208,968	123,578	42,340	31,541	19,027	10,612	11,049	9,677
	Weighted size SE weighted	509,355 27,872	21,431	12,751	4,828	3,645	3,078	1,889	1,921	2,221
	3L weighted	,	,					74	<b>6</b> 0	45
Dependent: \$30,000-\$39,999	Unweighted size	1,615	260	284	218	182 28,216	88 16,527	74 11,361	59 8,969	45 6,405
	Weighted size	455,046	179,945	90,872	45,978		2,915	1,904	2,263	1,433
	SE weighted	23,910	17,007	9,826	5,723	3,739	2,913	1,704	2,203	
Dependent: \$40,000-\$49,999	Unweighted size	1,777	324	305	242	193	95	67	62	36
rependent, \$10,000-\$17,777	Weighted size	504,976	216,079	99,109	43,747	34,370	17,104	9,644	10,006	6,680
	SE weighted	27,481	21,318	10,490	5,162	4,841	3,990	1,874	2,379	1,486
	**	1 626	232	283	228	177	89	61	54	•
Dependent: \$50,000-\$59,999	Unweighted size	1,535	232 197,790	123,530	52,579	27,518	18,517	9,566	7,366	•
	Weighted size SE weighted	496,748 30,334	22,178	15,523	8,429	3,569	2,903	1,893	1,448	•
	_			107	107	162	69	58	46	38
Dependent: \$60,000-\$69,999	Unweighted size	1,343	190	196	197	163 24,690	12,209	9,914	5,392	6,083
	Weighted size	381,634	166,204	61,791	44,786		2,134	2,218	1,040	1,454
	SE weighted	24,559	19,839	9,248	7,038	3,035	2,134	2,210	1,010	
Dependent: \$70,000-\$79,999	Unweighted size	1,059	162	134	186	124	58	43	43	•
	Weighted size	285,152	114,663	42,249	40,071	16,574	12,683	6,654	6,274	•
	SE weighted	18,133	14,736	6,664	5,124	2,382	2,426	1,475	1,506	•
D	Unweighted size	1,280	146	164	154	154	76	60	50	34
Dependent: \$80,000-\$99,999	Weighted size	316,294	113,866	53,618	34,561	20,904	14,537	9,635	7,011	4,463
	SE weighted	19,590	14,504	7,892	6,580	3,092	2,628	1,761	1,459	1,096
	_			. 177	174	136	88	73	53	46
Dependent: \$100,000 or more	Unweighted size	1,619	157	177	39,704	22,564	21,686	10,226	8,300	8,939
	Weighted size SE weighted	406,548 28,494	137,119 23,056	55,985 9,827	5,850	2,973	4,649	1,893	1,858	1,921
	SE weighted	20,474	25,050	,,,,,,	-,		•			
Independent: less than \$5,000	Unweighted size	2,067	491	323	253	163	174	128	159 22,256	128 17 <b>,2</b> 63
•	Weighted size	605,751	296,468	103,313	49,605	25,896	29,399	17,253		5,203
	SE weighted	29,197	22,594	12,043	7,059	3,593	5,209	3,585	4,964	3,20.
rudamandams, &\$ 000 &0 000	Unweighted size	1,539	479	194	161	103	122	99	86	123
Independent: \$5,000-\$9,999	Weighted size	571,037	348,057	62,513	39,949	14,823	19,360	13,471	13,480	15,844
	SE weighted	32,402	27,675	7,776	7,473	2,440	2,990	2,888	4,087	3,702
	-	2 102	831	312	216	131	133	137	110	9
Independent: \$10,000-\$19,999	Unweighted size	2,183	682,252	128,976	57,810	21,741	21,824	18,969	17,044	13,739
	Weighted size SE weighted	1,012,851 50,327	45, <b>84</b> 2	14,139	8,593	2,905	4,354	5,384	3,918	2,91
	3L Weighted	- 5,527		-					**	4
Independent: \$20,000-\$29,999	Unweighted size	1,275	530	184	119	82 12.445	94 16,498	71 11,667	50 8,225	4 7,36
	Weighted size	699,366	500,816 <sup>-</sup>	83,650	33,323	12,445		3,455	2,046	1,96
	SE weighted	44,401	39,406	12,074	5,630	2,104	3,019	دد4,د	2,040	1,50
Independent: \$30,000-\$49,999	Unweighted size	1,168	588	158	98	72	72	47	35	
macpendent, \$30,000-\$47,777	Weighted size	688,375	523,777	58,743	31,459	15,406	12,429	9,209	5,346	
	SE weighted	39,398	37,575	8,169	5,880	3,709	2,469	<b>3,2</b> 62	1,443	
	-	002	404	146	64	45	55	32	•	
Independent: \$50,000 or more	Unweighted size	902	495 471,864	145 53,718	24,755	9,766	10,998	6,018	•	
	Weighted size	595,766	39,937	7,125	6,099	2,125	2,127	1,767	•	
1	SE weighted	41,300	27,731	1,123	0,077	-,	-,	•		



Table G.11—Number of students enrolled in postsecondary institutions by family income and tuition for freshman/first-year students (continued)

		\$8,000- \$8,999	\$9,000- \$9,999	\$10,000- \$10,999	\$11,000- \$11,999	\$12,000- \$12,999	\$13,000- \$13,999	\$14,000- \$14,999	\$15,000 or More	Missin
TOTAL	Unweighted size	697	526	338	316	361	436	447	1,446	30
	Weighted size	128,988	78,315	54,408	53,770	47,074	52,192	59,885	156,982	147,76
	SE weighted	20,753	11,109	12,301	14,279	9,343	9,388	12,383	19,478	31,06
Dependent: less than \$10,000	Unweighted size	47	•	•		30	•	•	69	
	Weighted size	7,830	•	•	•	3,290	•	•	7,775	
	SE weighted	1,965	•	•	•	918	•	•	2,276	
Dependent: \$10,000-\$19,999	Unweighted size	39	38	•		30			88	
, ,	Weighted size	4,466	5,625	•	•	3,814		•		
	SE weighted	930	1,469	•	•	1,043	•	•	7,989 1,329	
Dependent: \$20,000-\$29,999	Unweighted size	36	46	32	•	21	44			
3-cpendent: 920,000-929,999	Weighted size	8,043	6,268	4,941	•	31	44	•	106	:
	SE weighted	1,831	1,371	1,740	•	3,647 999	4,733 1,231	•	11,361 1,914	
Demondants \$20,000 \$20,000	TT 1 hand 1									
Dependent: \$30,000-\$39,999	Unweighted size	47 8 025	•	35	•	42	34	48	128	:
	Weighted size	8,925	•	4,599	•	5,308	3,658	5,545	13,790	
	SE weighted	1,846	•	1,133	•	1,240	966	1,297	2,068	
Dependent: \$40,000-\$49,999	Unweighted size	47	58	•	•	•	65	46	138	
	Weighted size	9,760	10,837	•	•	•	7,316	6,045	13,938	
	SE weighted	2,205	2,186	•	•	•	2,399	1,529	2,588	
Dependent: \$50,000-\$59,999	Unweighted size	33	40	•	•	34	47	50	119	
	Weighted size	7,443	6,021	•	•	5,900	6,255	6,649	13,141	
	SE weighted	2,032	1,656	•	•	1,885	1,513	2,076	2,301	
Dependent: \$60,000-\$69,999	Unweighted size	35	46	•	•	33	31	35	152	
	Weighted size	6,121	6,638	•	•	3,965	3,813	4,764	16,429	
	SE weighted	1,783	1,350	•	•	1,210	1,190	1,632	2,584	
Dependent: \$70,000-\$79,999	Unweighted size	34	•	•	•	•	41	•	. 104	:
	Weighted size	6,491	•	•	•	•	5,465	•	11,757	
	SE weighted	1,972	•	•	•	•	1,438	•	1,898	•
Dependent: \$80,000-\$99,999	Unweighted size	36	40	•	•	•	42	53	187	
	Weighted size	5,973	5,699	•	•	•	4,570	7,117	20,676	
	SE weighted	1,310	1,359	•	•	•	981	1,906	3,052	
Dependent: \$100,000 or more	Unweighted size	56	71	46	32	39	56	01	224	
,	Weighted size	11,410	10,519	8,507	5,245	4,862	6,642	83 11,344	324	
	SE weighted	2,891	3,491	3,048	1,337	1,195	1,459	2,732	36,813 5,308	
ndependent: less than \$5,000	Unwaighted -:	37	3.5							
ndependent. 1658 than \$3,000	Unweighted size Weighted size	76 12.006	37 5 199	*	•	•	•	•	•	41
	SE weighted	12,096 3,407	5,188 1,123	*	:	•			•	14,810
	or weighten	3,407	1,123	•	•	•	•	•	•	4,546
ndependent: \$5,000-\$9,999	Unweighted size	57	•	•	30	•	•	•	•	3
	Weighted size	. 9,136	•	•	5,780	•	•	•	•	21,858
	SE weighted	2,332	•	•	5,230	*	•	•	•	10,162
ndependent: \$10,000-\$19,999	Unweighted size	86	•	•	•		•	•	•	48
	Weighted size	17,190	•	•	•	•	•	•	•	19,842
	SE weighted	5,158	•	•	•	•	•	•	•	6,024
ndependent: \$20,000-\$29,999	Unweighted size	37	•	•	•	•	•	•	•	
	Weighted size	7,418	•	•	•	•	•	•	•	
	SE weighted	2,302	•	•	•	•	•	•	•	•
ndependent: \$30,000-\$49,999	Unweighted size	•	•			•		•	•	
	Weighted size	•	•	•	•	•	•	•	*	
	SE weighted	•	•	•	•	•	•	•	•	
idependent: \$50,000 or more	Unweighted size	•		•						
mependent. #30,000 or more	Unweighted size Weighted size	•	•	•	•	•	•	•	•	

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.



Table G.12—Number of students enrolled in postsecondary institutions by family income and tuition for

sophomore/second-year students

		Total	\$0-\$999	\$1,000- \$1,999	\$2,000- \$2,999	\$3,000- \$3,999	\$4,000- \$4,999	\$5,000- \$5,999	\$6,000- \$6,999	\$7,000- \$7,999
TOTAL	Unweighted size	5,769	1,395	1,028	736	522	327	190	176	152
OIAE	Weighted size		1,803,633	627,447	345,496	212,070	122,304	58,660	50,031	44,008
	SE weighted		107,057	41,352	25,737	17,874	15,460	8,646	6,622	6,954
					60	39	•	•	•	•
Dependent: less than \$10,000	Unweighted size	366	58	66 26 26 1	19,022	14,160	•	•	•	•
	Weighted size	163,436	48,394	36,261		3,340	•	•	•	•
	SE weighted	14,968	10,949	6,790	3,265	3,340				
Dependent: \$10,000-\$19,999	Unweighted size	333	51	73	51	32	•	•	•	•
,	Weighted size	154,590	52,037	31,193	20,121	12,048	•	•	•	•
	SE weighted	14,436	11,783	5,001	3,583	2,287	•	•	•	•
	I Invesiohted size	409	63	76	46	42	•	•	•	•
Dependent: \$20,000-\$29,999	Unweighted size	211,026	84,899	40,698	18,459	17,023	•	•	•	•
	Weighted size SE weighted	16,996	14,463	6,384	3,267	3,442	•	•	•	•
	DD Weighted							_		
Dependent: \$30,000-\$39,999	Unweighted size	411	69	68	53	33	:	:	:	:
	Weighted size	228,929	80,648	45,438	29,213	16,858	•	•	•	•
	SE weighted	18,894	14,537	8,176	6,584	4,469	•	•	•	
Dependent: \$40,000-\$49,999	Unweighted size	354	54	61	52	32	•	•	•	•
эсрениен. 340,000 \$45,555	Weighted size	185,278	60,563	34,319	27,833	13,114	•	•	•	•
	SE weighted	15,235	•	7,288	5,248	2,494	•	•	•	•
					41	36			•	
Dependent: \$50,000-\$59,999	Unweighted size	331	52	55	20 929	15,256	•	•		•
	Weighted size SE weighted	164,959 14,081		28,920 5,671	20,828 4,007	3,146	•	•	•	•
	3L weighted	,	,	-,	,	•				
Dependent: \$60,000-\$69,999	Unweighted size	298	33	36	52	39	•	•	•	•
•	Weighted size	153,840	39,245	23,046	26,854	20,011	•	•	•	:
	SE weighted	14,060	11,285	5,390	4,608	3,456	•	•	•	•
Damandanti \$70,000 \$70:000	Unweighted size	228	•	33	31	30	•	•	•	•
Dependent: \$70,000-\$79,999	Weighted size	120,467		18,197	15,829	18,030	•	•	•	•
•	SE weighted	12,439		4,240	3,622	4,418	•	•	•	•
,	-				20					
Dependent: \$80,000-\$99,999	Unweighted size	289		42	39			•	•	•
	Weighted size	159,888		38,431	18,202		•	•	•	•
	SE weighted	15,932	9,210	11,351	3,265					
Dependent: \$100,000 or more	Unweighted size	331	•	37	39	30	•	•	• 1	•
	Weighted size	160,408	•	23,260	26,973	14,607	•	•	•	•
	SE weighted	12,779	•	4,620	6,114	3,380	•	•	. •	•
	TT	470	135	98	56	37 <sup>.</sup>	•	•	•	•
Independent: less than \$5,000	Unweighted size	262,403		50,079	22,075	12,189	•	•	•	. •
	Weighted size SE weighted	21,005		7,579	3,981	4,000	•	•	• •	•
						••				
Independent: \$5,000-\$9,999	Unweighted size	413	135	81	54	38	:		·	
	Weighted size		185,203	67,037	23,964	10,833	:			
	SE weighted	25,620	21,335	10,696	4,682	2,479	•	•	·	
Independent: \$10,000-\$19,999	Unweighted size	541	205	107	76	37	31	•	•	•
шасренаент. ф10,000-ф17,777	Weighted size		267,656	65,948	30,428	9,919	8,155	•	• '	•
	SE weighted	31,058		10,980	5,134	1,975	1,770	•	•	•
	-			<b></b>	26			•	•	
Independent: \$20,000-\$29,999	Unweighted size	354		68	35 15 174		•	•	•	
	Weighted size	332,670 28,505	251,072 5 26,832	39,447 6,980	15,174 3,668	•	•	•	•	•
	SE weighted	20,303	20,032	0,700	5,000					
Independent: \$30,000-\$49,999	Unweighted size	388		76	33	35	•	•	•	•
	Weighted size	359,583	7 253,025	53,726	19,718	13,844	•	•	•	•
	SE weighted	33,132		9,499	5,611	4,552	•	•	•	•
v 1 1 . #co.ooo	Thursday and all	26	3 126	51				. •	•	
Independent: \$50,000 or more	Unweighted size Weighted size	25: 247.75	188,418	31,447	•	•	•	•	•	•

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Table G.12—Number of students enrolled in postsecondary institutions by family income and tuition for sophomore/second-year students (continued)

	•	\$8,000- \$8,999	\$9,000- \$9,999	\$10,000- \$10,999	\$11,000- \$11,999	\$12,000- \$12,999	\$13,000- \$13,999	\$14,000- \$14,999	\$15,000 or More	Missing
TOTAL	Unweighted size	148	142	90	96	126	107	114	384	36
	Weighted size	42,458	40,652	30,323	30,075	32,301	29,990	27,997	103,651	22,309
	SE weighted	6,451	6,925	6,241	7,606	6,302	6,381	6,818	14,047	7,370
Dependent: less than \$10,000	Unweighted size	•		•	•	*	•		37	
	Weighted size	•	•	•	•	•			10,207	
	SE weighted	•		•	•			•	2,594	•
D	** * * * * * * *		_						_,	
Dependent: \$10,000-\$19,999	Unweighted size Weighted size			•	•	:	•		*	•
	SE weighted	•	•	*	•	•	•		•	•
Dependent: \$20,000-\$29,999	Unweighted size							_		
Dependent: \$20,000-\$29,999	Weighted size				•			:	36	•
	SE weighted	•	•	•	•	•	•	•	9,412 2,364	•
	_								2,504	
Dependent: \$30,000-\$39,999	Unweighted size	*	*	*	*	*	•	•	43	*
	Weighted size		*	*	*	*	× •	•	10,046	
	SE weighted	*	*	*	*	*	•	•	1,869	*
Dependent: \$40,000-\$49,999	Unweighted size	•		•	*		•	•	•	•
	Weighted size	•	•				*	•	*	
	SE weighted	•	•	•	•	•	*	•	•	•
Dependent: \$50,000-\$59,999	Unweighted size	•	•		•	•		•		
	Weighted size	*	*	•		•		*		
	SE weighted	*	*	•	•	*	•	•	•	•
Dependent: \$60,000-\$69,999	Unweighted size		*	*	*	•			34	
	Weighted size								9,607	
	SE weighted	•	•	•	*			•	1,956	•
Dependent: \$70,000-\$79,999	Unweighted size									
Sependent: 370,000-377,777	Weighted size		•	•	•			:		*
	SE weighted	•	•	•	*	•	•	•	•	
Danamdonti \$20 000 \$00 000	Thursday day			_						
Dependent: \$80,000-\$99,999	Unweighted size			•	•	•	•		32	*
	Weighted size SE weighted			•	*	•	:	•	8,280 1,804	*
									1,804	•
Dependent: \$100,000 or more	Unweighted size	*	*	•	•	•	*	•	77	*
-	Weighted size			*	*	*	•	•	24,125	*
	SE weighted	•	•	*	*	*	*	*	3,958	*
ndependent: less than \$5,000	Unweighted size	•	•	•	•	•	•	•	•	*
	Weighted size	*	*	*	*	*	*	•	*	
	SE weighted	•	•	•	*	•	•	*	•	•
ndependent: \$5,000-\$9,999	Unweighted size	•		•	•					
	Weighted size	•			*	•	*	*		
	SE weighted	•	•	•	•	•	•	*	•	*
ndependent: \$10,000-\$19,999	Unweighted size	*	*				•		•	
	Weighted size							•		
	SE weighted		•	•	•		•	•	•	*
ndependent: \$20,000-\$29,999	TIih 4 -!		•					_		
nacpenaem. \$20,000-\$29,999	Unweighted size Weighted size		•	-	-	<del>*</del>			•	
	SE weighted	•	•	*	*	•	*	*	*	*
	_								•	•
ndependent: \$30,000-\$49,999	Unweighted size	*	*	•	•	•	*	*	*	•
	Weighted size	*	*	•	•	•	*	•	*	•
	SE weighted	•	•	•	*	•	*	*	•	•
ndependent: \$50,000 or more	Unweighted size	*	•	•	*	*				
ndependent: \$50,000 or more	Unweighted size Weighted size	*	*	*	•	•	•	*	*	•

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.



G-26

Table G.13—Number of students enrolled in postsecondary institutions by family income and tuition for junior/third-year students

		Total	\$0-\$999	\$1,000- \$1,999	\$2,000- \$2,999	\$3,000- \$3,999	\$4,000- \$4,999	\$5,000- \$5,999	\$6,000- \$6,999	\$7,000 \$7,999
OTAL	Unweighted size	4,698	551	866	764	521	315	176	137	81
OTAL	Weighted size	1,816,640	284,617	343,388	321,287	214,817	133,677	61,965	44,417	28,419
	SE weighted	47,960	24,109	20,366	17,665	17,135	16,742	7,982	6,030	4,052
	University of the size	222	•	45	37	•	•	•	•	•
ependent: less than \$10,000	Unweighted size Weighted size	80,439	•	17,097	13,244	•	•	•	•	:
	SE weighted	6,726	•	2,944	2,378	. •	•	•	•	
	DE Weightee									
Dependent: \$10,000-\$19,999	Unweighted size	263	•	45	46 18,177	:			•	
	Weighted size	92,607 7,502	•	17,925 3,229	3,039	•	•	•	•	
	SE weighted	7,502		5,225	-,					
Dependent: \$20,000-\$29,999	Unweighted size	318	•	45	60	44	•	:	:	
	Weighted size	125,147	•	17,727	26,899	19,093	:	•	•	
	SE weighted	9,151	•	3,270	4,139	3,397	•			
5	Unweighted size	290	•	36	42	39	•	•	•	
Dependent: \$30,000-\$39,999	Weighted size	105,975	•	15,273	18,270	15,969	•	•	•	
	SE weighted	7,675	•	2,826	2,781	3,061	•	•	•	
	-	22.4	•	62	54	42	•	•		
Dependent: \$40,000-\$49,999	Unweighted size	334 127,474	•	23,735	24,795	19,582	•	•	•	
	Weighted size SE weighted	127,474 8,555	•	23,733 3,785	3,436	3,513	•	•	•	
	ae weikiiten	0,555								
Dependent: \$50,000-\$59,999	Unweighted size	305	•	50	69	•	•	•	•	
•	Weighted size	124,279	•	22,500	31,914	:			•	
	SE weighted	8,453	•	3,684	4,358					
Dependent: \$60,000-\$69,999	Unweighted size	275	•	35	36	40	•	•	•	
Dependent. 300,000-309,999	Weighted size	109,757	•	15,696	16,652	18,098	•	•	•	
	SE weighted	7,738	•	3,081	2,836	3,131	•	•	•	
		21.6	•	35	•	•	•	•	•	
Dependent: \$70,000-\$79,999	Unweighted size Weighted size	215 90,438	•	15,961	•	•	•	•	•	
	SE weighted	7,472	•	3,131	•	•	•	•	•	
	<b>.</b>				_				•	
Dependent: \$80,000-\$99,999	Unweighted size	256	•	•	:	33 14,901	•	•	•	
	Weighted size	103,946 7,652	•	•	•	2,899	•	•	•	
	SE weighted	7,032				_,				
Dependent: \$100,000 or more	Unweighted size	339	•	•	. 48	34	•	•	•	
<b></b>	Weighted size	147,935	•	•	24,657	18,665	:			
	SE weighted	10,795	•	•	4,153	3,946	•	·	·	
v 4dam. 1 4b \$6,000	Unweighted size	358	36	86	75	40	•	•	•	1
Independent: less than \$5,000	Unweighted size Weighted size	118,449	18,594	26,808	27,636	14,217	•	•	•	•
	SE weighted	8,410	5,067	3,249	3,569	2,592	•	•	•	•
	_					43				•
Independent: \$5,000-\$9,999	Unweighted size	312	46 22.000	64 23,776	64 21,816	43 17,990	•	•		•
	Weighted size SE weighted	112,999 8,861	22,999 5,951	23,776 3,171	3,185	3,256	•	•	•	•
	3E weighten	0,001	3,23.							
Independent: \$10,000-\$19,999	Unweighted size	378	82	98	63	42	•	•		,
	Weighted size	139,461	38,250	37,461	23,820	14,766				•
	SE weighted	9,732	6,151	4,607	3,538	2,454	·	•		
Independent: \$20,000-\$29,999	Unweighted size	264	64	80	•	•	•	•	•	•
machemacut: 370,000-372,333	Weighted size	102,979	34,012	30,733	•	•	•	•	• . • •	•
	SE weighted	9,010	5,937	4,196	•	•	•	•	, ,	•
	•			0.0	20	32			, ,	•
Independent: \$30,000-\$49,999	Unweighted size	339	91 45,921	85 32,926	50 19,833	32 11,168	•		,	•
	Weighted size SE weighted	134,499 11,019	45,921 6,675	32,926 4,750	3,311	2,376	•	•	•	•
	25 MeiRiten	11,017	0,0.5	.,		•				
Independent: \$50,000 or more	Unweighted size	230	60	52	38	•	•	•	,	•
•	Weighted size	100,256	38,414	22,140	14,665	•				•
	SE weighted	9,866	7,291	3,580	2,593	-	•			



Table G.13—Number of students enrolled in postsecondary institutions by family income and tuition for junior/third-year students (continued)

		\$8,000- \$8,999	\$9,000- \$9,9 <del>9</del> 9	\$10,000- \$10,999	\$11,000- \$11,999	\$12,000- \$12,999	\$13,000- \$13,999	\$14,000- \$14,999	\$15,000 or More	Missing
TOTAL	Unweighted size	138	110	121	71	107	138	147	428	•
	Weighted size	47,407	36,038	40,677	23,408	29,065	42,515	39,119	113,342	•
	SE weighted	8,930	6,924	6,621	. 4,993	5,957	8,302	8,795	14,458	•
Dependent: less than \$10,000	Unweighted size	•	•	•	•		•		22	
	Weighted size	•	•	•		•	•	•	33 7,469	:
	SE weighted	•	•	•	•	•	•	•	1,590	•
Dependent: \$10,000-\$19,999	Unweighted size									
	Weighted size	•		•	·	:		•	•	•
	SE weighted	•	•	•	•	•	:	•	•	•
Dependent: \$20,000-\$29,999	Thursdahand star									
Dependent. \$20,000-\$29,999	Unweighted size Weighted size			•	•	•	•	•	31	•
	SE weighted	•	•	÷	•	•	•	•	7,078	•
Den de \$20,000 \$20,000	_							·	1,626	•
Dependent: \$30,000-\$39,999	Unweighted size	•	•	•	•	•	•	•	31	•
	Weighted size	•	•	•	•	•	•	•	8,513	•
	SE weighted	•	•	•	•	•	•	•	2,385	•
Dependent: \$40,000-\$49,999	Unweighted size	•	•	•	•	•	•	•	42	•
	Weighted size	•	•	•	•	•	•	•	10,896	•
	SE weighted	•	•	•	•	•	•	•	2,303	•
Dependent: \$50,000-\$59,999	Unweighted size	•	•	•	•	•	•		30	
	Weighted size	•	•	•	•	•	•		8,582	•
	SE weighted	•	•	•	•	•	•	•	2,129	•
Dependent: \$60,000-\$69,999	Unweighted size	•	•	•		•			40	_
	Weighted size	•	•	•	•			·	40	•
	SE weighted	•	•	•	•	•	•	•	10,739 2,315	•
Dependent: \$70,000-\$79,999	Unweighted size									
	Weighted size	•	•		·	:	•	•	36	•
	SE weighted	•	•	•	•	•		•	8,949 1,695	•
Dependent: \$80,000-\$99,999	Unweighted size			•						
	Weighted size	•				:	•	•	36	•
	SE weighted	•	•	•	•	•	•	•	10,081 2,055	•
Dependent: \$100,000 or more	Tto status de t								2,055	·
Dependent: \$100,000 or more	Unweighted size	•	•	•	•	•	•	•	84	•
	Weighted size SE weighted	•		•	•	•	•	•	26,963	•
	_							•	4,626	•
ndependent: less than \$5,000	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
ndependent: \$5,000-\$9,999	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	.•	•	•	•	•	•	•	•	
	SE weighted	•	•	•	•	•	•	•	•	•
ndependent: \$10,000-\$19,999	Unweighted size	•	•	•	•	•	•			
	Weighted size	•	•	•	•	•	•	•		
	SE weighted	•	•	•	•	•	•	•	•	•
ndependent: \$20,000-\$29,999	Unweighted size	•	•	•	•	•	•	_	_	
•	Weighted size	•	•	•	•	•	•	-	<del>*</del>	•
	SE weighted	•	•	•	•	•	•	•	•	:
ndependent: \$30,000-\$49,999	Unweighted size	•		•	•			_		
	Weighted size	•	•		•	•	•	•	•	•
	SE weighted	•	•	·	•	•	•	•	•	•
dependent: \$50,000 or more	I Incominable - 3	_		_					•	•
dependent. \$30,000 or more	Unweighted size Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•		•	•	-		•	•
					•	•	•	•	-	•

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.



Table G.14—Number of students enrolled in postsecondary institutions by family income and tuition for senior/fourth- or fifth-year students

		Total	\$0-\$999	\$1,000- \$1,999	\$2,000- \$2,999	\$3,000- \$3,999	\$4,000- \$4,999	\$5,000- \$5,999	\$6,000- \$6,999	\$7,000- \$7,999
	Unweighted size	5,134	730	952	942	525	323	159	145	103
OTAL	Weighted size	2,093,699	348,086	422,155	415,049	234,154	145,729	61,663	48,446	37,686
	SE weighted	55,473	21,239	25,465	25,963	17,510	16,655	7,357	6,495	4,927
	_				41			•	•	•
Dependent: less than \$10,000	Unweighted size	206	•	33	41 14,358	•	•	•	•	•
	Weighted size	75,557		12,785	2,707	•		•	•	•
	SE weighted	8,100	•	2,674	2,707		•			
Dependent: \$10,000-\$19,999	Unweighted size	239	•	33	47	•	•	•	•	•
Jependent: \$10,000-\$17,777	Weighted size	85,705	•	11,998	17,608	•	•	•	•	•
	SE weighted	6,209	•	2,227	3,119	•	•	•	•	
	- 0				40				•	
Dependent: \$20,000-\$29,999	Unweighted size	264	•	35	49	•	•	•	•	
	Weighted size	99,729		15,480	21,565 3,881	•	•	•	•	
	SE weighted	7,867	•	2,935	3,001					
4 \$20 000-\$30 000	Unweighted size	261	•	47	43	•	•	•	•	1
Dependent: \$30,000-\$39,999	Weighted size	100,552	•	21,413	19,677	•	•	•	•	
	SE weighted	7,430	•	3,721	3,455	•	•	•	•	,
	Ü	<b>A</b>		43	20	38	•	•	•	1
Dependent: \$40,000-\$49,999	Unweighted size	258	•	18 824	39 17 245	16,695	•	•	•	1
	Weighted size	99,572		18,824	17,245	2,868	•	•	•	
	SE weighted	7,736	•	3,626	3,100	2,000				
Dependent: \$50,000-\$59,999	Unweighted size	287	•	35	56	•	•	•	•	
Dependent. \$30,000-\$37,777	Weighted size	120,525	•	18,192	25,833	•	•	•	•	
	SE weighted	8,038	•	3,390	3,725	•	•	•	•	
	_		•	20	24	34	•	•		
Dependent: \$60,000-\$69,999	Unweighted size	262	:	38	34 16,659	17,413	•	•	•	
	Weighted size	111,099	:	19,850	2,899	3,311	•	•	•	
	SE weighted	8,354	•	3,424	2,077	3,311				
Dependent: \$70,000-\$79,999	Unweighted size	177	•	•	31	•	•	•	•	
Dependent: \$70,000 \$77,555	Weighted size	76,073	•	•	17,229	•		•		
	SE weighted	6,994	•	•	3,701	•	•	•	*	
					40	•	•	•	•	
Dependent: \$80,000-\$99,999	Unweighted size	216		•	21,443	•	•	•	•	
	Weighted size	94,918 7,224	•	•	3,295	•	•	•	•	
	SE weighted	7,224			-,					
Dependent: \$100,000 or more	Unweighted size	348	•	36	49	35	•	•	•	
- · <b>F</b> ,	Weighted size	159,637	•	17,207	27,293	20,206		·		
	SE weighted	12,144	•	3,308	5,062	4,412	•	•	•	
<b></b>	** ** * * * * * * * * * * * * * * * * *		75	123	109	83	32	•	•	
Independent: less than \$5,000	Unweighted size	557 198,898	31,071	46,893	42,050	32,447	11,600	•	•	
	Weighted size SE weighted	11,058	4,195	5,031	4,890	4,661	2,611	•	•	
	3E weighted	,050	.,	-,						
Independent: \$5,000-\$9,999	Unweighted size	441	64	116	104	47	•	:		
<b></b>	Weighted size	168,950	26,997	47,963	40,868	19,681		:		
	SE weighted	9,815	3,848	5,269	4,630	3,485	•	•	•	
	Time and the deal	556	123	120	130	51	30	•	•	
Independent: \$10,000-\$19,999	Unweighted size	223,882	60,326	50,789	54,528	19,674	10,334	•	•	
	Weighted size SE weighted	12,365	6,144	5,735	6,379	2,907	2,221	•	•	
	DE MeiRitten	. 2,505	٠,٠	-,						
Independent: \$20,000-\$29,999	Unweighted size	353	97	81	56	31	•	•	•	
•	Weighted size	143,596	41,773	35,805	23,606	13,994	•			
	SE weighted	9,130	4,968	4,754	3,358	2,635	•	•	•	
	77	272	94	88	59	35	•	•	•	
Independent: \$30,000-\$49,999	Unweighted size	373 160 340	52,727	41,725	25,588	14,638	•	•	•	
	Weighted size SE weighted	169,349 12,732	8,219	5,288	4,201	2,675	•	•	•	
	OF MEIRITER	. 4,134	U, a	-,		,				
Independent: \$50,000 or more	Unweighted size	336	121	78	55	•	•	•	•	
	Weighted size	165,657	64,158	39,683	29,499	•	•			
i	SE weighted	11,852	7,472	5,639	4,526	•	•	-		



Table G.14—Number of students enrolled in postsecondary institutions by family income and tuition for senior/fourth- or fifth-year students (continued)

TOTAL  Dependent: less than \$10,000  Dependent: \$10,000-\$19,999  Dependent: \$20,000-\$29,999  Dependent: \$30,000-\$39,999	Unweighted size Weighted size SE weighted  Unweighted size Weighted size SE weighted  Unweighted size Weighted size Weighted size SE weighted  Unweighted size Weighted size Weighted size SE weighted  Unweighted size	41,987 6,031	125 43,783 7,208	112 35,725 5,962	85 28,123 5,242	90 27,529 4,858	132 39,095 7,812	\$14,999 119 30,380 6,517 •	or More 457 127,478 16,399	Missing
Dependent: \$10,000-\$19,999  Dependent: \$20,000-\$29,999	Unweighted size Weighted size SE weighted Unweighted size Weighted size Weighted size SE weighted Unweighted size Weighted size Weighted size Weighted size Weighted size SE weighted	6,031	7,208	5,962	5,242	4,858	7,812	6,517	127,478	
Dependent: \$10,000-\$19,999  Dependent: \$20,000-\$29,999	Unweighted size Weighted size SE weighted Unweighted size Weighted size SE weighted Unweighted size Weighted size Weighted size Weighted size SE weighted	•	•							•
Dependent: \$10,000-\$19,999  Dependent: \$20,000-\$29,999	Weighted size SE weighted  Unweighted size Weighted size SE weighted  Unweighted size Weighted size SE weighted			•	•	•	*	•	* *	•
Dependent: \$20,000-\$29,999	Weighted size SE weighted  Unweighted size Weighted size SE weighted  Unweighted size Weighted size SE weighted	•	* * *	•	•	•	•	•	•	•
Dependent: \$20,000-\$29,999	SE weighted Unweighted size Weighted size SE weighted Unweighted size Weighted size SE weighted	•	•	•	•	•	•	•		•
Dependent: \$20,000-\$29,999	Weighted size SE weighted Unweighted size Weighted size SE weighted	•	•	•	•				-	
Dependent: \$20,000-\$29,999	Weighted size SE weighted Unweighted size Weighted size SE weighted	•		•	•	_				
	SE weighted Unweighted size Weighted size SE weighted	•	•			•	•	•	32	•
	Unweighted size Weighted size SE weighted	•			•	•	:	•	7,987	•
	Weighted size SE weighted	•							1,823	*
Dependent: \$30,000-\$39,999	SE weighted	•	•	•	•	•	•	•	36	•
Dependent: \$30,000-\$39,999	_		•	•	•	•	•	•	9,196	•
Dependent: \$30,000-\$39,999	Unweighted size	•	•	•	•	•	•	•	2,259	•
		•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
Dependent: \$40,000-\$49,999	Unweighted size	•								
2-6	Weighted size	•	•	•			:	•	42	•
	SE weighted	•	•	•	•	•	•	•	11,415 2,719	•
									2,717	
Dependent: \$50,000-\$59,999	Unweighted size	•	•	•	•	•	•	•	41	•
	Weighted size	•	•	•	•	•	•	•	10,876	•
	SE weighted	•	•	•	•	•	•	•	2,189	•
Dependent: \$60,000-\$69,999	Unweighted size	•	•	•	•	•	•	•	40	
	Weighted size	•	•	•	•	•	•	•	11,690	•
	SE weighted	•	•	•	•	•	•	•	2,075	•
Dependent: \$70,000-\$79,999	Unweighted size		•			•				
	Weighted size	•	•	•	•	•			33	•
	SE weighted	•	•	•	•	•	•	•	9,007 2,066	•
Dependent: \$80,000-\$99,999	Manusistand size			_					_,	
2cpcndcnt. \$60,000-\$99,999	Unweighted size Weighted size				•	•	•	•	40	•
	SE weighted	•	•	•	•	•	•	•	12,602 2,410	•
									2,410	•
Dependent: \$100,000 or more	Unweighted size	•	•	•	•	•	•	•	81	•
	Weighted size	•	•	•	•	•	•	•	25,941	•
	SE weighted	•	•	•	•	•	•	•	4,851	•
ndependent: less than \$5,000	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
ndependent: \$5,000-\$9,999	Unweighted size	•	•	•						
	Weighted size	•	•	•	•	•	•	•	·	•
	SE weighted	•	•	•	•	•	•	•	•	•
ndependent: \$10,000-\$19,999	The state of t									
idependent. \$10,000-\$19,999	Unweighted size Weighted size				•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
	-						,	•	•	•
ndependent: \$20,000-\$29,999	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
ndependent: \$30,000-\$49,999	Unweighted size	•	•	•	•	•	•	•	•	
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	٠	•	•	•	٠	•	•	•
ndependent: \$50,000 or more	Unweighted -i	•	•				_	_		
adpondent. #30,000 or more	Unweighted size Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.



Table G.15—Number of students enrolled in postsecondary institutions by family income and tuition for unclassified undergraduate students

		Total	\$0-\$999	\$1,000- \$1,999	\$2,000- \$2,999	\$3,000- \$3, <del>99</del> 9	\$4,000- \$4,999	\$5,000- \$5,999	\$6,000- \$6,999	\$7,000- \$7,999
	Unweighted size	1,540	686	202	165	85	68	47	43	66
OTAL	Weighted size	738,992	531,031	63,051	45,643	17,193	13,873	- 10,358	6,180	16,529
	SE weighted	87,945	79,050	10,899	9,182	4,975	4,650	2,993	2,331	6,552
	3E weighted	0,,,,,		•						
ependent: less than \$10,000	Unweighted size	51	•	•	•	•	•	•		•
ependent. less than o to jour	Weighted size	11,181	•	•		•	•	·		•
	SE weighted	2,526	•	•	•	•	•	*		
			_			•			•	•
Dependent: \$10,000-\$19,999	Unweighted size	41	•	:	•	•	•	•	•	•
•	Weighted size	21,585					•	•	•	•
	SE weighted	6,128	•	•						
	** : 1 - : -	51	•	•	•	•	•	•	¢	
Dependent: \$20,000-\$29,999	Unweighted size	23,519	•	•	•	•	•	•	•	•
	Weighted size	8,600	•	•	•	•	•	•	•	•
	SE weighted	8,000								
	Unweighted size	33	•	•	•	•	•	•	•	•
Dependent: \$30,000-\$39,999	Weighted size	16,517	•	•	•	•	•	•	•	•
	SE weighted	5,843	•	•	•	•	•	•	•	•
	22 31BIN00	-,-· <del>-</del>					_		•	
Dependent: \$40,000-\$49,999	Unweighted size	49	•	•	•	•	•		•	:
rependent, wrogood-wargers	Weighted size	27,608	•	•	•	•	•	:	•	
	SE weighted	8,439	•	•	•	•	•	•	•	•
	-							•	•	•
Dependent: \$50,000-\$59,999	Unweighted size	•	•	•	·	•	•	•	•	•
•	Weighted size	•	•	•		•	•	•	•	•
	SE weighted	•	•	•	•	•				
					•	•	•	•	•	•
Dependent: \$60,000-\$69,999	Unweighted size		•	•	•	•,		•	•	•
	Weighted size		•	•	•	•	•	•	•	•
	SE weighted	•								
D 1 . 670 000 670 000	Unweighted size	•	•	•	•	•	•	•	•	•
Dependent: \$70,000-\$79,999	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
	3L Weighted						_			
Dependent: \$80,000-\$99,999	Unweighted size	•	•	•	•	•	•		:	
Dependent: \$60,000-\$77,777	Weighted size	•	•	•	•	•	•			
	SE weighted	•	•	•	•	•	•	•	•	
	Ÿ			_					•	•
Dependent: \$100,000 or more	Unweighted size	•	•	:			•	•	•	•
•	Weighted size	•	•	:	•	•		•	•	
	SE weighted	•	•	•	•					
		166	54		•	•	•	•	•	•
Independent: less than \$5,000	Unweighted size	155	38,411	•	•	•	•	•	•	•
	Weighted size	58,597 9,835	8,833	•	•	•	•		•	•
	SE weighted	7,633	0,055							
Tdd	Unweighted size	173	65		•	•	•	•	•	•
Independent: \$5,000-\$9,999	Weighted size	73,495	44,876	•	•	•	•	•	•	•
	SE weighted	13,247	11,661	•	•	•	•	•	•	•
	DE Weighten		·					_		
Independent: \$10,000-\$19,999	Unweighted size	277	111	43	•	•	•	•		
macpendent. #10,000-#17,777	Weighted size	127,195	92,120	12,545	•	•	•			
	SE weighted	19,530	17,945	3,462	•	•	•	•	•	
	_					_			•	
Independent: \$20,000-\$29,999	Unweighted size	221	98	34					•	
•	Weighted size	100,464	70,012	8,546	•	-		•	•	
	SE weighted	15,917	14,151	2,294	•	•	•			
			100	22				•	•	
Independent: \$30,000-\$49,999	Unweighted size	204	109	10.618		•	•	•	•	
	Weighted size	126,818	100,692	10,618				•	•	
	SE weighted	16,331	15,310	2,678	·					
	**	177	103	•	•	•	•	•	•	
Independent: \$50,000 or more	Unweighted size	173 88,941	70,514	•	•	•	•	•	•	
i	Weighted size		11,953		•	•	•	•	•	
	SE weighted	12,711	11,700							



Table G.15—Number of students enrolled in postsecondary institutions by family income and tuition for unclassified undergraduate students (continued)

		\$8,000- \$8,999	\$9,000 <b>-</b> \$9,999	\$10,000- \$10,999	\$11,000- \$11,999	\$12,000- \$12,999	\$13,000- \$13,999	\$14,000- \$14,999	\$15,000 or More	Missing
TOTAL	Unweighted size	81	<del>-</del>	•	-	<del></del>	•	•	*	***************************************
	Weighted size	16,914	•	•	•	•	•	•	•	
	SE weighted	8,412	•	•	•	•	•	•	•	•
Dependent: less than \$10,000	Unweighted size	•	•	•	•					
	Weighted size	•	•	•	•			·		•
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Dependent: \$10,000-\$19,999	Unweighted size					_				
	Weighted size				•	:	•	•	•	•
	SE weighted	•	•	•	•	•	:	•	•	•
D									Ť	Ť
Dependent: \$20,000-\$29,999	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	*
Dependent: \$30,000-\$39,999	Unweighted size	•	•	•	•	•	•	•		•
	Weighted size	•	•	•	•	•		•	•	
	SE weighted	•	•	•	•	•	•	•	•	•
Dependent: \$40,000-\$49,999	Unweighted size	•								
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Weighted size	•	•	•	•	•			•	
	SE weighted	•	•	•	•	•	•	•	•	•
Dependent: \$50,000-\$59,999	Harris No. 1									
Dependent: \$50,000-\$59,999	Unweighted size	*	•	•	•	• .	•	•	•	•
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	on wageness				·	•	•	•	•	•
Dependent: \$60,000-\$69,999	Unweighted size	•	•	•	•	•	•	•	•	•
	Weighted size	•	•	•	•	•	•	•	•	•
	SE weighted	•	•	•	•	•	•	•	•	•
Dependent: \$70,000-\$79,999	Unweighted size	•	•	•						
	Weighted size	•	•	•	•	•	•		:	•
	SE weighted	•	•	•	•	•	•	•	•	•
Dependent: \$80,000-\$99,999	Unweighted size									
- openius 000,000 \$33,333	Weighted size	•	•	•		•	•	•	•	•
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Demanda 4: \$100,000									•	•
Dependent: \$100,000 or more	Unweighted size	•	•	•	•	•	•	•	•	•
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ndependent: less than \$5,000	Unweighted size	•	•	•	•	•	•	•	•	
	Weighted size	•	•	•		•	•	•	•	
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ndependent: \$5,000-\$9,999	Unweighted size	•	•	•	•					
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ndependent: \$10,000-\$19,999	Unweighted size				_					
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ndependent: \$50,000 or more	Unweighted size	•	•		•					]
	Weighted size	•	•		•	•	•	•	•	<u> </u>

<sup>\*</sup>Insufficient number of cases for reliable estimation. Graduate students are independent students.



## Appendix H NPSAS:96 Analysis Variables

Note: This list of NPSAS:96 analysis variables is current as this report is being published. However, it is anticipated that additional variables will be created and added in the future. Links to the most recent NPSAS Data Analysis Systems, which contain the NPSAS analysis variables can be found at the following web sites.

http://nces.ed.gov/ http://www.pedar-das.org



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DERIVED	EMPLYAMT	Aid	
DERIVED	MERITAID	Aid	merit-only grants and schotaiships a
DERIVED	NEEDAID	Aid	need-based g
DERIVED	INFEDAID	Aid	non-rederal
DERIVED	INFEDGRT	Aid	non-federal
DERIVED	TNFEDLN	Aid	non-federal loans 95-96
DERIVED	TNFEDOTH	Aid	
DERIVED	TOTAID	Aid	aid 95-96
DERIVED	TOTAID2	Aid	
DERIVED	TOTGRI	Aid	Ξ.
DERIVED	TOTLOAN	Aid	
DERIVED	TOTLOAN2	Aid	
DERIVED	TOTOTHR	Aid	other type of ald (includes assistantships & FDOS)
DERIVED	TOTWKST	Aid	
DERIVED	WAIVAMT		TOTAL TUILION WAIVEL 95-90
DERIVED	AIDPACK		Package by type or ald (grants/roans/work) 33-30
DERIVED	FEDPACK		With levelar and (Ferr and Starrord) institutional aid markade 95-96
DERIVED	INSTPACK		Type of instructional are parkage of the property of the prope
DERIVED	PELLPACK		Package with Fit1s II years by course 95-96
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DEKIVED	SCRPACAZ	Ald package	parkare with Stafford loans 95-96
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DERIVED	PELLOAMT	ייייייייייייייייייייייייייייייייייייייי	Pell grant amount at non-NPSAS inst. 95-96
DEKIVED	DEI.I,AMT	AidFed	Pell grant 95-96
DERIVED	SCHL2AID	AidFed	Federal aid amt. received at non-NPSAS institution 95-96
DERIVED	SCHOOL2	AidFed	Loans at second (non-NPSAS) institution 95-96
DERIVED	STAF2AMT	AidFed	loan amount (FFEL+Direct) rcvd
DERIVED	STAFFAMT	AidFed	
DERIVED	STAFFCT1	AidFed	
DERIVED	STAFFCT2	AidFed	Stafford total amount categories 95-96
DERIVED	STAFSUB	Aldred	Statiold Substation amount (Frenchinder) 05.00
DERIVED	STAFUNSB	Aldred	
DERIVED	TALNAMII	Aldred	Title IV loans (including PLUS) 35 35
DEKIVED	TEEDAID	Aidred	Total federal aid amount (except VA/DOD) 95-96
DERIVED	TFEDAIDS	AidFed	federal aid amount
DERIVED	TFEDGRT	AidFed	grant amount
DERIVED	TFEDLN	AidFed	federal loan amount (except PLUS) 95-
DERIVED	TFEDLN2	AidFed	amount
DERIVED	TITIVAMT	AidFed	
DERIVED	ZPERKINS	AidFed	
DERIVED	SPLUS	AidFed	Source for PLUS loans 95-96
DERIVED	ZSTAFF	AidFed	
DERIVED	SEOGAMT	AidFedgrant	SEOG amount 95-96
DERIVED	OTHFDGRT	AidFedgrant	
DERIVED	DIRECTLN	AidFedloan	
DERIVED	DIRECTSB	AidFedIoan	Direct loan subsidized amount 95-96
DERIVED	DIRECTON	Aidredloan	PARI. Joan total 95-96
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Variable Label

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	Source for military aid Source for military aid Total state aid amount 95-96 State need-based grant/scholarship amount 95-96 State non-need-based grant/scholarship amount 95-96 State grant total 95-96 State loan total 95-96 State - other type of aid 95-96
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work-study AP tests - AP tests -	Took AP tests - Calculus Took AP tests - Chemistry Took AP tests - Computer science	AP tests - AP tests - AP	Took AP tests - Foreign languages Took AP tests - Government	AP tests -	Took AP tests - Physics Took AP tests - Psychology	Number of Advanced Placement (AP) tests taken	Parents Own a Dusiness 95-96 Darents husiness debt 95-96	Parent's business net value 95-96			Parents Tarm debt 95-96 Devents ferm net value 95-96		Parents have other investments 95-96		Parents other investment debt 95-96	other investment value 95-5	own business or f	Parents own a home 95-96	Parent's home equity 95-96	Parents have cash and savings over \$10,000				Student net worth 95-96	business debc	business value 95-5				Student other investment debt 95-96 Student other investment net value 95-96	other investment value 95-96	Attendance intensity fall 1995-96	Attendance intensity first term enrolled 1995	intensity		Attendance pattern at NPSAS INSt 1993-90	11411 Year-5 months) 95-96
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Variable Type

Variable Label

Number of

Number of months enrolled at the NPSAS inst. 95-96 months enrolled - 1995-96 credit Number of Number of

hours taken during 95-96 hours taken at NPSAS inst. 95-96

95/06 95/07 Inrollment 95/05 95/08 Inrollment Inrollment

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96/02

**Enrollment** Inrollment

96/05

Date first enrolled at NPSAS inst in 1995-96 (yyyymm) Date first enrolled in 1995-96 (yyyymm)

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Percent months enrolled full-time at NPSAS inst, 1995-96

Percent months enrolled full-time - 1995-96

Date last enrolled in 1995-96 (yyyymmdd)

Clock hours required per week at NPSAS inst 1995-96

Percent months enrolled half-time 95-96

Date last enrolled at NPSAS inst in 1995-96 (yyyymm)

Enrolled in PSE during 1994-95

Percent months enrolled half-time at NPSAS inst1995-96

Institution used for enrollment in 95/05 Institution used for enrollment in 95/06 Institution used for enrollment in 95/07

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Length of program (clock-hour students NPSAS inst) 1995-96 Number of months attended ht or more at NPSAS inst 95-96 Number of months attended full-time NPSAS inst 1995-96 Number of months attended half-time or more 1995-96 months attended half-time or more 1995-96 Number of months attended full-time 1995-96 Percent months enrollment missing 1995-96

Number of months enrollment status missing -1995-96 Number of months enr status missing (NPSAS inst) 95-96 months attended less than half-time -1995-96 Percent months enrollment missing NPSAS inst, 1995-96 of of

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**ENR9512 ENR9602** ENR9603 **ENR9605 ENR9606** 

ENR9511 ENR9601

Number of months attended 1t ht at NPSAS inst 95-96 Year first enrolled in postsecondary education Percent months enrolled less than half-time 19-95-96		Source for multiple schools 95-96  Source for multiple schools 95-96  Cumulative borrowed for undergraduate education through 1996  Cumulative borrowed for graduate education through 1996  Cumulative borrowed for ed. (ug & grad) through 1996  Cumulative federal amount borrowed for education through 96  Type of loans borrowed (federal/family) through 1996  Total amount ever borrowed from family  Amount still owed for loans from family  Amount still owed on loans total in 1996		
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Variable Name

Variable Type

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Variable Label	96CPS019: Student earned income from work in 1994 (ISIR) 96CPS040: Student annual Soc. Sec. benefits in 1994 (ISIR) 96CPS041: Student annual Soc. Sec. benefits in 1994 (ISIR) 96CPS042: Student annual APPC/ADC benefits in 1994 (ISIR) 96CPS043: Student onnuad in 1994 (ISIR) 96CPS043: Student cherans education benefits (ISIR) 96CPS045: Wonthly Veterans education benefits (ISIR) 96CPS045: Wonthly Veterans education benefits (ISIR) 96CPS045: Wonthly Veterans education benefits (ISIR) 96CPS045: Endent cah. savings, checking (ISIR) 96CPS045: Endent business debt (ISIR) 96CPS045: Student business debt (ISIR) 96CPS045: Student farm value (ISIR) 96CPS050: Student farm value (ISIR) 96CPS051: Student farm value (ISIR) 96CPS052: Student farm value (ISIR) 96CPS052: Student farm value (ISIR) 96CPS052: Student farm value (ISIR) 96CPS052: Interested in student employment (ISIR) 96CPS052: Interested in student loans (ISIR) 96CPS052: Student farm debt (ISIR) 96CPS054: Interested in student loans (ISIR) 96CPS052: Student farm debt (ISIR) 96CPS052: Student farm debt (ISIR) 96CPS052: Student farm cher (ISIR) 96CPS054: Interested in student loans (ISIR) 96CPS065: Interested in student loans (ISIR) 96CPS065: College choice #1 (ISIR) 96CPS075: Salterported degree/certificate expected (ISIR) 96CPS075: Salterported degree/certificate expected (ISIR) 96CPS086: Brarollment plan for Sprin
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Variable Type	CPS96 CPS96



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97CPS014: Student State of Legal Residence (ISIR) 97CPS015: Student Legal Residence Date (yyyymmdd) 97CPS017: Student date of birth (yyyymmdd) 97CPS018: Student Citizenship Status (ISIR) 97CPS020: First Bachelor Degree by 7-1-96? (ISIR) 97CPS021: Student Marital Status (ISIR) 97CPS023: Born Before 1-1-73? (ISIR) 97CPS024: Veteran of US Armed Forces (ISIR) 97CPS025: Graduate/Prof Student in 96-97 (ISIR) 97CPS025: Student Married?		
CPS97 CPS97 CPS97 CPS97 CPS97 CPS97 CPS97 CPS97	CPS97 CPS97 CPS97 CPS97 CPS97 CPS97 CPS97 CPS97	CPS97 CPS97
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CPS97	C97_179	(PS47)	-
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DERIVED	LEARNDIS	Disability	Learning disability
DERIVED	ORTHO	Disability	Orthopedic limitation
CATI	SGHEAR	Disability	Extent of hearing impairment
CATI	SGORTHO1	Disability	Walk 1/4 mile without assistance
CATI	SGORTHO2	Disability	Able to walk up stairs without resting
CATI	SGORTHO3	Disability	Able to lift/carry up to 10 pounds
CATI	SGORTHO4	Disability	How difficult to enter/exit buildings
CATI	SGSPEECH	Disability	Extent of speech impairment/disability
CATI	SGVISION	Disability	Extent of visual impairment
DERIVED	SPEECH	Disability	Speech limitation
DERIVED	VISUAL	Disability	
DERIVED	EFC1	EFC	expected family
DERIVED	EFC3	DAU I	expected family contribution
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DERIVED	T STORES		parental contribution for dependent students 95-96
DERIVED	7500	) H	FM dependent student contribution 95-96
CATT	655 657 858	EFC Family (Student	
•			neips prepare tor career 33-36

DAS/ECB Prefix

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Variable Type

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Received any financial aid in 1995-96 Date FAFSA application received Received any financial aid in 1994-95 Prepaid tuition amount use 95-96 Used U.S. savings bonds 95-96 Number of strategies used to finance 95-96 Number of strategies used to finance 95-96 Student/parents use a college prepay plan 95-96 Student/parents received AFDC in 1994 or 1995 AGI combined (categorical) -1994 AGI combined (categorical) -1994 AGI combined (categorical) -1994 AGI combined (cont.) parents and indep. students-1994 AGI combined (cont.) parents and indep. students-1994 Total income (cont.) parents income -1994 Dependent students parents income -1994 Income and dependency level (categorical) 1994 Student/parents received income support during 1995-96 Total income independent students 1994 Total income independent students 1994 Total income independent students 1994 Farents total income, percentile (dep. students) 1994 Parents total income, percentile (dep. students) 1994 Percent of poverty level 1995 Student/parents received social security in 1994 or 1995 Student/parents received social security in 1994 Parents AGI (categorical) 1994 Parents AGI (categorical) 1994 Parents AGI (categorical) 1994 Parents swemptions claimed in 1994 Parents exemptions claimed in 1994	Parents tax form 1994 Parents ax ax form 1994 Parent's income (including parents of independents)-1994 Parent's income (including parents of independents)-1995 Parents other nontaxed income-amount-1994 Parents social security benefits 1994 Parents income taxes paid in 1994 Parents untaxed income-1994 Source for parents income Independent student AGI (categorical) 1994 Received Worker's Compensation in 1995 Received Disability in 1995 Received Disability in 1995 Received food stamps in 1995 Received food stamps in 1995 Spouse employed 95-96 Spouses earned income from work 1994 Student AFDC/ADC benefits 1994 Student child support received in 1994 Student exemptions claimed in 1994 Student's income (including dependents) -1995 Student's income (including dependents) -1995
Financial aid Financial Aid Financial aid Fund Source, student Fund source, student Fund source, student IncomeFamily Inco	IncomeParent IncomeParent IncomeParent IncomeParent IncomeParent IncomeParent IncomeParent IncomeStudent
ANYFIN APPDATE PRIORAID PREPAID SCUSBOND STRATI STSAVPLN AFDC CAGI CAGI CAGICAT CHILDSUP CINCOME CINCOME CINCOME INCOME INCSUP I	PARFORM PARINC94 PARINC95 PAROCH PARTAX PARAX ZPARINC SAGICAT SFCOMP95 SFCOMP95 SFCOMP95 SFCOMP95 SFCOMP96 SFCO
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Variable Name

Variable Type

H-14

Student other nontaxed income 1994		income	income	untaxed			NPSAS institution affiliation (IPEDS) 95-96	Control of institution where aid received 95-96	Level of institution where aid received 95-96	Type of other inst. (not NPSAS) where aid received 95-96	Institution type where aid received in 95-96	NPSAS institution is a cosmetology school 95-96	NPSAS institution Carnegie code 95-96	Institution awards clock vs. credit hours 95-96	Institution control 95-96	Endowment/FTE categories (NPSAS inst) 95-96	Control and size (total enrollment) (NPSAS inst) 95-96	Enrollment at the NPSAS institution 95-96	FICE code NPSAS Institution 95-96	First professional offerings at the NPSAS inst 95-96	Is the NPSAS inst. the first institution attended?	Historically black college/university (NPSAS inst	Highest level offering 95-96		96-56	Number of schis student planned to apply to, 95-96 (CPS)	IPEDS identification code - NPSAS inst	Institution level 95-96	Location of institution (Urban/rural)	Institution calendar system 95-96			code.	NPSAS INST percent black non-hispanic, rail 1995	tilst percent American findan, Fall 199	ingt		inst percent minority, Fall 1995		NPSAS institution has occupational courses 95-96				NPSAS institution has adult remed/HS equiv. courses 95-96	NPSAS institution offers secondary courses 95-96	program and institution type 95-96	Sequence of enrollment (multiple enrollments) 95-96	Institution type (level & control) 95-96	Institution type and highest degree 95-96	Indicator for no standard terms at the school 95-96	
IncomeStudent	IncomeStudent	TheomeStudent	IncomeStudent	IncomeStudent	IncomeStudent	IncomeStudent	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Insciention	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	Institution	
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DER TVED	CENT CENT	CENTYER	CENTYED CRD TVRD	CENTYED CAN INCO	DERIVED	DERIVED	IPEDS	DERIVED	DERIVED	DERIVED	DERIVED	TDEDS	TORUS	O E O E O	IPEDS	DERIVED	DERIVED	IPEDS	IPEDS	IPEDS	DERIVED	IPEDS	IPEDS	DERIVED	DERIVED	DERIVED	IPEDS	IPEDS	IPEDS	CADE	IPEDS	DERIVED	DERIVED	IPEDS	IPEDS	IPEDS	IFEUS	DERIVED	DERIVED	IPEDS	IPEDS	IPEDS	IPEDS	IPEDS	IPEDS	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	

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Variable Name

Variable Type

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Variable Type	Variable Name	DAS/ECB Prefix	Variable Label
CADE	COSTLIVE	Institution Choice	Other living costs were less 95-96
DERIVED	COSTREL	Institution Choice	ated rsns f
DERIVED	FACILITY	Institution Choice	Facilities/equipment 95-96
DERIVED	FRIENDAT	Institution Choice	Friends/spouse attended the school 95-96
DERIVED	INFLREL		Number influence rel. rsns for attndng schl 95-96
DERIVED	INFLUNCE		Other influence factors 95-96
DERIVED	LIVEHOME		Could live at home 95-96
DERIVED	LOCATION		Other location reason 95-96
DERIVED	LOCREL		Number location rel. rsns for attending schl 95-96
DERIVED	MOREAID	Institution Choice	Got more financial aid 95-96
DERIVED	OTHCOST		Other cost related reason 95-96
DERIVED	OTHRSN		Other reputation reason 95-96
DERIVED	PARENT	Institution Choice	Parent(s) wanted student to attend 95-96
DERIVED	PARNATT	Institution Choice	Parent(s) attended the school 95-96
DERIVED	PLACEMNT		Job placement 95-96
DERIVED	PROFESOR	Institution Choice	Faculty reputation 95-96
DERIVED	RATED	Institution Choice	Number of rating criteria considered 95-96
DERIVED	REPREL		Number reputation rel. rsns for attndng schl 95-96
DERIVED	REPUTATN	Institution Choice	School has good reputation 95-96
CATI	SBCRIMRT	Institution Choice	Considered crime rate
CATI	SBGRADRT		Considered graduation rate
CATI	SBPLACRT	Institution Choice	Considered job placement rate
CATI	SBRSNMST	Institution choice	Most important reason to attend
DERIVED	SCHCLOSE		Close to home 95-96
DERIVED	SCHLNWRK	Institution Choice	Close to job 95-96
DERIVED	SHORTER	Institution Choice	Shorter time to finish 95-96
CATI	SIMILES	Institution Choice	Distance from school to permanent home 95-96
CATI	SINUMACC	Institution Choice	
CATI	SINUMAPP	Institution Choice	Number of schools applied to 95-96
DERIVED	SURROUND		Liked the campus 95-96
DERIVED	TEACHER	Institution Choice	Teacher/guidance counselor recommended 95-96
DERIVED	TUITLESS	Institution Choice	Tuition was low 95-96
IPEDS	ADMREQ1	InstitutionAdmission	inst
IPEUS	ADMREQIO	InstitutionAdmission	inst
IPEDS	ADMREQ11	InstitutionAdmission	inst
IPEUS	ADMREQ12	InstitutionAdmission	inst
IPEUS	AUMREQ2	InstitutionAdmission	inst require HS class sta
I PEUS STRUT	AUMKEQ3	InstitutionAdmission	inst require test
TORDS	ADMINEQ#	InstitutionAdmission	inst require sAI
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IPEDS	ADMREOS	InstitutionAdmission	. not
SCHAI	ADMREO9	InstitutionAdmission	inst require ability to beliefit
DERIVED	INSTREO	InstitutionAdmission	in a t
DERIVED	PACPDATE	Interview	
	BPSELNEW	Interview	
400 DERIVED	FTBTYPE	Interview	First-time beginner
	PACPTIME	Interview	Parent Interview completion time
DERIVED	STCPDATE	Interview	Student Interview completion date
DERIVED	STCPTIME	Interview	Student Interview completion time
UEKIVEU	SUMDATE	Interview	Summary status - Date (yyyymmdd)



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Summary status Summary status - Time Summary status - Time Amount of total aid subject to EFC limitations 95-96 Amount of federal aid subject to EFC limitations 95-96 Ratio, EFC to total student budget (full-time, full-year) Ratio, EFC to total student budget (adjusted) 95-96 Student budget (full-time, full-year) minus EFC 95-96 Student budget (full-time, full-year) minus EFC 95-96	Student budget (adjusted) minus EFC 95-96 Student budget (adjusted) minus EFC minus aid 95-96 Student budget (adjusted) minus EFC minus federal grants 95-96 Student budget (adjusted) minus all aid 95-96 Tuition and fees minus federal grants 95-96 Student budget (adjusted) minus grants 95-96 Student budget (adjusted) minus federal grants 95-96 Student budget (adjusted) minus grants and 0.5*loans 95-96 Student budget (full-time) minus grants and 0.5*loans 95-96 Student budget (full-time) minus grants 95-96 Student budget (full-time) minus grants 95-96 Student budget (full-time) minus grants 95-96 Student budget (full-time) minus grants 95-96 Consolidated loans-1990-91 Consolidated loans-1990-91 Consolidated loans-1991-92 Consolidated loans-1991-92 Consolidated loans-1991-95 Consolidated loans-1991-95 Consolidated loans-1991-95 Consolidated loans-1993-94 Consolidated loans-1995-96 Consolidated loans-1995-96 Consolidated loans-1995-96 Consolidated loans-1995-96 Consolidated loans-1995-96 Consolidated loans-1995-96 Consolidated loans-1995-96 Consolidated loans-1995-96 Consolidated loans-1995-96 Cumulative borrowed graduate (Stafford & Perkins) through 1996 Cumulative borrowed graduate (Stafford & Perkins) through 1996	Amount owed (Stafford & Perkins) in 1996 Amount owed (Stafford, Perkins) in 1996 Amount owed (Stafford, Perkin, & Plus) in 1996 Cumulative borrowed undergrad. (Staff., Perk., SLS) through 1996 Cumulative borrowed undergrad. (Staff., Perk., Plus, SLS) thru 1996 NSLDS federal student loan records available 1995-96 Perkins loans-AY89-90 and prior Perkins loans-AY91-92 Perkins loans-AY92-93 Perkins loans-AY92-94 Perkins loans-AY94-95 Perkins loans-AY94-95 Perkins loans-AY99-90 Perkins loans-AY99-90 Perkins loans-1990-91 PLUS loans-1990-91 PLUS loans-1990-91 PLUS loans-1992-93 PLUS loans-1992-93 PLUS loans-1992-93
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DAS/ECB Prefix

Variable Name

Variable Type

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Variable Label	loans-1994-95 loans-1995-96 loans-1995-96 loans-cumulative through ord and SLS loans-undergradd ord and SLS loans-undergradd ord and SLS loans-undergradd ord and SLS loans-graduate year sord and SLS loans-graduate yord and SLS loans-year unknowd and SLS loans-year unknowd and SLS loans-year unknowd and SLS loans-year unknowd and SLS loans-year unknowd and SLS loans-year unknowd and SLS loans-year unknowd and SLS loans-Ax99-91 ord and SLS loans-Ax99-91 ord and SLS loans-Ax99-91 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord and SLS loans-Ax99-95 ord subsidized amount in 199 ord subsidized amount in 199 ord subsidized amount in 199 ord subsidized amount in 199 ord subsidized amount in 199 ord subsidized loans (incl.) IV Subsidized loans (incl.) IV Subsidized loans (incl.) IV Subsidized loans (incl.) IV Subsidized loans (incl.)	Title IV Subsidized loans (incl. Perkins)-1994-95 Title IV Subsidized loans (incl. Perkins)-1995-96 Title IV Subsidized loans (incl. Perk.)-cumulative thru 1996 Title IV loans including PLUS-1989-90 and earlier Title IV loans including PLUS-1990-91
DAS/ECB Prefix	NSLDS NSLDS	NSLDS NSLDS NSLDS NSLDS NSLDS
Variable Name	PLUS94 PLUS95 PLUSCUM STF01 STF02 STF03 STF04 STF05 STF06 STF06 STF06 STF06 STF07 STF08 STF09 STF10 STF11 STF10 STF11 STF109 STF110 STF	T4SUB94 T4SUB95 T4SUBCUM T4TOT89 T4TOT90
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DAS/ECB Prefix

Variable Name

Variable Type

Variable Type	Variable Name	DAS/ECB Prefix	Variable Label
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CATI	PLRETIRE	ParentFundSource	Retirement funds 95-96
CATT	PLSAVNGS	ParentFundSource	Savings, money market, CD 95-96
CATI	PLTRUST	ParentFundSource	,
DERIVED	DADAGE	Parents	Father's age 95-96
DEKIVED	DADOC	Parents	Father's occupation 95-96
DERIVED	MOMAGE	Parents	
DEKIVED	MOMOC	Parents	Mother's occupation 95-96
DEKIVED	PARAGE	Parents	Age of older parent 95-96
DERIVED	PARSTATE	Parents	Parents^ state of legal residence 95-96
DEKIVED	PMARITAL	Parents	narital status 95-96
DERIVED	RPAR	Parents	Referent parent 95-96
DERIVED	ZPMARIT	Parents	Source for parents marital status
DERIVED	B2T03	ParentsEducation	Both parents have 2-3 years of psg 95-96
DERIVED	BASSOC	ParentsEducation	Both parents have an Associate's 95.96
DERIVED	BBA	ParentsEducation	Both parents have a Bachelor's 95-96
DERIVED	BBAPLUS	ParentsEducation	Both parents have a Bachelor's or higher 95-96
DERIVED	BHSG	ParentsEducation	have
DEKIVED	BLTHS	ParentsEducation	Both parents have a less than HS education 95-96
DEKIVED	BMAPLUS	ParentsEducation	Both parents have a Master's degree or higher 95-96
DERIVED	BSMPSE	ParentsEducation	1
DEKIVED	DADED	ParentsEducation	Father's highest level of education 95-96
Deniver	EZIO3	ParentsEducation	Either parents has 2-3 years of PSE 95-96
DERIVED	EASSOC	ParentsEducation	Either parent has an Associate's 95-96
DERIVED	EBA	ParentsEducation	Either parent has a Bachelor's 95-96
DERIVED	EBAI	ParentsEducation	Parent's Bachelor's degree status 95-96
DERIVED	EBAPLUS	ParentsEducation	Either parent has a Bachelor's or higher 95-96
CENTVED	EHSG	ParentsEducation	Either parent has a high school diploma 95-96
DEBINED	ELIRS	ParentsEducation	Either parent has a less than HS education 95-96
DEPTIVED	EMAPLUS	ParentsEducation	Either parent has a Master's degree or higher 95-96
DEPTVED	ESMISSE	ParentsEducation	Either parent has some PSE, lt 2 years 95-96
DERIVED	MOMPLOC	ParentsEducation	Highest level of education completed by father 95-96
DEPTVED	MOMORA	FarentsEducation	Mother's highest level of education 95-96
DEVIVED CRV IVED	MORHEDIA	ParentsEducation	Mother has more education than father 95-96
DERIVED	MOINEDOC	FarentsEducation	Highest level of education completed by mother 95-96
DERIVED	PAREDIC	ParentsEducation	Parents highest education level (3 values) 95-96
DERIVED	703050	FarentsEducation	Highest education level compl. by either parent 95-9
DERIVED	Carre	FarentsEqueation	Source for parents education
DERIVED	ATDCGTS	ratio	of total aid to student budget
DERIVED	FEDOCAL	RACIO	å,
DERIVED	NAC ITABL	Datio	of tederal aid to total a
DERIVED	TO THE	RACIO	o to
DERIVED	GRIRATIO	Ratio	ġ,
DERIVED	FUGURA	Datio	9 ,
DERIVED	LOANPCT	Ratio	
DERIVED	STAPCT	Ratio	4 6
DERIVED	WORKPCT	Ratio	scare and to total a
DERIVED	SFAMPAY	Reason no apply-student	Family/student could now of or
DERIVED	SHARDAPP	2	Too difficult to analy 95-96
DERIVED	SHINCOME	90	Family income too high 95-96
DERIVED	SLOWGRAD		Grades/scores too low 95-96
DERIVED	SMISDLIN	Reason no apply-student	Missed application deadline 95-96

DAS/ECB Prefix

Variable Name

Variable Type

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Variable Label	Enrolled in a recognized tribe		Occupation 95-96	Region of legal residence 95-96	Student's state of legal residence 95-96	Aye, Lypical for student classification 95-96 Age, typical/older classification 95-96	Veteran status 95-96	Source for student age	for student	for student		ָבָּלָ בָּלָ	for	Source for student race/ethnicity	for	Holds a cosmetology license 95-96	program during first	Degree program during last term 95-96	Doctoral program 1995-96	Number of licenses/certs the student holds of oc	,	Holds a nurses aid/home health aid license 95-96	a nursing/lpn license 95-96		a bachelors degree 95-96	Holds a certificate or other formal award 95-96		Holds other type of license 95-9	Holds a masters degree 95-96	Holds a post-baccalaureate certificate 95-96	Holds a teaching license 95-96	Source for degree program first term	Source for degree program last term Student narticinated in an annountionia	Journal participated in an apprenticanip 95-96 Level and control of school of first ba	Student participated	Any transfer credits from other school?	Ever attended	Date expected	Holds a first		Mert does control of first postsecondary inst.	Wild'L GOES	drade point average 95-96		
DAS/ECB Prefix	Student	student Student	Student	Student	Student	Student	Student	Student	Student	Student	Student	Student	Student	Student				student, degree	Student, degree Student, degree		Student, degree					student, degree Student dogge	Student, degree Student, degree					Student, degree Student degree			Student, education	Student, education					Student, education Student education			Student, education	
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Variable Type	CATI	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DEKIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	Carron	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED	DERIVED

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Number of years of graduate study High school degree or equivalent High school graduation year Student participated in an intership 95-96 Field of study 95-96 (99 categories) Undergraduate field of study 95-96 (12 cat.) Graduate field of study 95-96 (12 cat.) Date completed program (yyyymm) Student completed degree program 95-96 Year of first bachelor's degree School of bachelor's degree - IPEDS	Type of high school attended Attend inst. in region of legal residence 95-96? Attend inst. in state of legal residence 95-96? Attend inst. in state of legal residence 95-96? Primary reason for enrolling Highest level of education planned 95-96 Living arrangement when not in school Participated in coop ed/intersh/apprent Student type during first term enrolled 95-96 Student type during last term enrolled 95-96 Source for high school degree Source for student major First professional degree program 1995-96 Graduate dgeree program 1995-96 Graduate became graduate in 1995-96 Graduate level first term 95-96 Graduate level first term 95-96 Student level during first term 95-96 Student level during last term 95-96 Student level during last term 95-96 Student level during last term 95-96	changed btw ist and last term, level first term 95-96 level last term 95-96 level last term 95-96 level last term 95-96 level last term score lons exam (DAT) rd Exam (GRE) score  e nissions Test (LSAT) ge Admissions Test (MCAT) ogies test h score soning score soning score soning score soning score soning score soning score shi language Proficency (TOEFL) in political activities 95-96
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Variable Name

Variable Type

Variable Type Variable	Variable Name	DAS/ECB Prefix	Variable Label
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# Appendix I

**Imputations** 



#### **Hot Deck Imputations** Α.

As described in Section 5.4, data for 21 analysis variables were statistically imputed using the weighted hot deck procedure. This appendix shows the imputation classes and sorting variables for all of these variables. As presented in Table 5.3, the variables are ordered by the percentage of missing data.

(1) Variable Name: STUINC94

Description:

Student Income

Data Used in Imputation:

Study Respondents (48,389)

Number Missing:

12,928 (26.7%)

Imputation Classes:

57 CHAID segments defined by cross-classifications of

Dependency status

Amount of need-based aid received (categorical recode)

Marital status

Age (categorical recode)

Race/ethnicity

**Tuition** 

**OBE** region

Institution level

Parent income (categorical recode of imputed variable)

Attendance status

**Sorting Variable(s):** 

Institution level

Race/ethnicity

Amount of need-based aid received

(2) Variable Name: PARINC94

Description:

Parent Income

Data Used in Imputation:

Study Respondents, Dependents(24,218)

Number Missing:

5.889 (24.2%)

Imputation Classes, 1st Stage: Parent income category from student reports (if reported) Imputation Classes, 2nd Stage: 49 CHAID segments defined by cross-classifications of

Amount of need-based aid received (categorical recode)

Tuition

Race/ethnicity

OBE region

Institution level

Institution control

Sorting Variable(s):

Amount of need-based aid received

NOTE: The imputation for parent income was performed in two stages. The first stage used parent income categories as the imputation classes among students who reported their parents' income category. The second stage imputed the remaining missing values where other variables were used to define the imputation classes. In both stages, the amount of need-based aid received was used as the sorting variable.



(3) Variable Name:

**NDEPEND** 

**Description:** 

Number of Dependents

Data Used in Imputation:

Study Respondents, Independents (24,171)

17 CHAID segments defined by cross-classifications of

Number Missing:

4,749 (19.6%)

**Imputation Classes:** 

Student marital status

Age group Gender

Student type

Indicator of CPS data

Institution level

Sorting Variable(s):

Gender Age

**(4)** Variable Name: **PFAMNUM** 

**Description:** 

Parent Family Size

Data Used in Imputation:

Study Respondents, Dependents (24,218)

Number Missing:

4,375 (18.0%)

**Imputation Classes:** 

Institution highest level of offering

Sorting Variable(s):

Age

(5) Variable Name:

**ANYDEP** 

**Description:** 

Dependents indicator

Data Used in Imputation:

Study Respondents, Independents (24,171)

Number Missing:

4,306 (17.8%)

Imputation Classes:

13 CHAID segments defined by cross-classifications of

Age group

Student income

Gender

Student type

Indicator of CPS data

Indicator of CATI data

Institution level

Sorting Variable(s):

Gender

Age

(6) Variable Name:

**PMARITAL** 

**Description:** 

Parent Marital Status

Data Used in Imputation:

Study Respondents, Dependents (24,218)

Number Missing:

3,775 (15.5%)

**Imputation Classes:** 

Institution highest level of offering

Sorting Variable(s):

Age



(7) Variable Name: HSDEG

**Description:** Indicator and Type of High School Degree

Data Used in Imputation: Study Respondents (48,389)

Number Missing: 2,561 (5.3%)

Imputation Classes: Degree program in first term (imputed)

Sorting Variable(s): Age

(8) Variable Name: HSGRADYY

Description: High School Graduation Year

Data Used in Imputation: Study Respondents, High School Degree or Certificate (47,508)

**Number Missing:** 2,511 (5.3%)

Imputation Classes: A cross-classification of

Type of high school degree Age (categorical recode)

Sorting Variable(s):

Age

(9) Variable Name: Smarital

**Description:** Student Marital Status

Data Used in Imputation: Study Respondents (48,389)

Number Missing: 2,211 (4.6%)

Imputation Classes: 11 CHAID segments defined by cross-classifications of

Dependency status Student income Student type

Indicator of CPS data

Age group

Sorting Variable(s):

Age

(10) Variable Name: CITIZEN2

Description: Citizenship of Student

Data Used in Imputation: Study Respondents (48,389)

Number Missing: 2,084 (4.3%)
Imputation Classes: Federal aid status

Sorting Variable(s):

Institution control Institution level

Student legal residence region



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(11) Variable Name:

**LEVLAST** 

Description:

Student Level in Last Term

Data Used in Imputation:

Study Respondents (48,389)

Number Missing:

2,073 (4.3%)

Imputation Classes:

Degree program in last term

Sorting Variable(s):

Institution highest level of offering

Age

(12) Variable Name:

**LEVFIRST** 

Description:

Student Level in First Term

Data Used in Imputation:

Study Respondents (48,389)

Number Missing:

2,063 (4.3%)

**Imputation Procedure:** 

Copied imputed values of LEVLAST into missing values of LEVFIRST.

(13) Variable Name:

**RACE** 

Description:

Race/ethnicity

Data Used in Imputation:

Study Respondents(48,389)

Number Missing:

1,794 (3.5%)

Imputation Classes:

69 CHAID segments defined by cross-classifications of

**OBE** region

Percent blacks at institution Percent Hispanics at institution

Percent Asian/Pacific Islander at institution

Percent American Indian/American Native at institution

Institution level
Institution control

Sorting Variable(s):

Percent white at institution

(14) Variable Name:

**LOCALRES** 

Description:

Local Residence

Data Used in Imputation:

Study Respondents (48,389)

Number Missing:

1,259 (2.6%)

Imputation Classes:

A cross-classification of

Indicator of dorms on campus

Dependency status

Marital status

Sorting Variable(s):

Age

(15) Variable Name:

AGE

Description:

Student Age

Data Used in Imputation:

Study Respondents (48,389)

Number Missing:

456 (0.9%)

**Imputation Classes:** 

A cross-classification of

Dependency status

Student level in last term

**Sorting Variable(s):** 

Marital status

Attendance status

(16) Variable Name:

**ATTEND** 

**Description:** 

Attendance Intensity in Fall Term

Data Used in Imputation:

Study Respondents, Enrolled in Fall Term (40,058)

Number Missing:

314 (0.6%)

**Imputation Classes:** 

A cross-classification of

Federal aid status

Marital status

**Sorting Variable(s):** 

Age

Note:

The fall enrollment variable was imputed first to classify students as enrolled in the fall

term or not.

(17) Variable Name:

DEPEND2

**Description:** 

Dependency Status

Data Used in Imputation:

Study Respondents (48,389)

**Number Missing:** 

283 (0.6%)

**Imputation Procedure:** 

Imputed missing values by applying the dependency status definition for Federal aid applicants to the imputed variables for age, marital status, student level, and family size.

(18) Variable Name:

FALL

**Description:** 

Fall Enrollment Indicator

Data Used in Imputation:

Study Respondents (48,389)

Number Missing:

164 (0.3%)

**Imputation Classes:** 

Marital status

**Sorting Variable(s):** 

Age

(19) Variable Name:

**GENDER** 

Description:

Student Gender

Data Used in Imputation:

Study Respondents (48,389)

Number Missing:

96 (0.2%)

**Imputation Classes:** 

Race

**Sorting Variable(s):** 

Student major



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(20) Variable Name:

**DEGLAST** 

**Description:** 

Degree Program in Last Term Study Respondents (48,389)

Data Used in Imputation:

Number Missing:

92 (0.2%)

**Imputation Classes:** 

Student level in last term

Sorting Variable(s):

Institution highest level of offering

(21) Variable Name:

**DEGFIRST** 

**Description:** 

Degree Program in First Term

Data Used in Imputation:

Study Respondents (48,389)

Number Missing:

74 (0.2%)

**Imputation Procedure:** 

Copied imputed values of DEGLAST into missing values of DEGFIRST.



NPSAS:96 METHODOLOGY REPORT: APPENDIX I

#### B. EFC Imputations

For expected family contribution (EFC), a regression approach was used for imputation. The goal was to obtain the most parsimonious and best fitting equations using information likely to be available for non-aided students (those most likely to have a missing EFC). The general approach was to develop logistic regression models to estimate zero EFC cases, and then use ordinary least squares (OLS) regression models to estimate the predicted EFC for non-zero EFC cases. This approach was designed to accommodate the truncated EFC distribution (i.e., the large number of zero EFC cases in the population) and followed a conventional econometric approach for such cases.

The EFC imputations were performed separately for three categories of students: Dependent Students, Independent Students without Dependents, and Independent Students with Dependents. The extent of the imputation is shown in Table I.1 for the total group and for three categories of student dependency.

Table I.1—Sources of EFG	C by student	dependency status
--------------------------	--------------	-------------------

Source	Tota		Depende	ents	Independ depend	li i	Indepen with depe	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	48,389	100.0	24,218	100.0	13,593	100.0	10,578	100.0
Institution SAR	1,250	2.6	660	2.7	349	2.6	241	2.3
CPS 95-6 ISIR	28,479	58.9	15,148	62.5	7,208	53.0	6,123	57.9
CPS 96-7 ISIR	1,048	2.2	545	2.3	327	2.4	176	1.7
Pell grant file	596	1.2	245	1.0	114	0.8	237	2.2
Imputed	17,016	35.2	7,620	31.4	5,595	41.2	3,801	35.9

The first step in imputing EFC for independent students used the parameter estimates from logistic regressions to predict whether or not the student fell into the zero EFC group. If the estimate probability was below 0.5, the cases was estimated to have a non-zero EFC; if above 0.5, the case was estimated to have a zero EFC. For the non-zero cases, an ordinary least squares based regression formula was then used to estimate the independent student EFC.

For independent students without dependents, the variables used in the imputation were:

- Student Total Income (STUINC94)
- Dummy variable based on Student Marital Status Married (SMARITAL=2)



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For independent students with dependents, the variables used in the imputation were:

- Student Total Income (STUINC94)
- Dummy Variable based on STUINC94 GE \$60,000
- Dummy variable based on Student Marital Status Married (SMARITAL=2)
- Dummy variable based on Student Marital Status Separated (SMARITAL=3)
- Student Family Size (SFAMNUM)
- Number of Family Members in Postsecondary Education (SPOSTED)

For dependent students, two components of EFC were estimated and the sum of the estimated components was used as the estimate of the dependent students' EFC. The two components of dependent student EFC were: (a) the adjusted parent contribution and (b) the dependent student contribution. The estimation proceeded along lines similar to those used for the independent students, with a logistic regression first used to estimate zero EFC, followed by OLS regression. However, the logistic prediction for the adjusted parent contribution was not satisfactory, so OLS was used to estimate the entire component for all cases.

For dependent students, the variables used to predict the Adjusted Parent Contribution were:

- Parent Total Income (PARINC94)
- Dummy Variable based on PARINC94 GE \$60,000
- Family Size (PFAMNUM)
- Dummy Variable based on business or real estate assets GT \$50,000 or savings more than \$10,000
- Dummy Variable for Parent Marital Status Single (PMARITAL=1)
- Dummy Variable for Parent Marital Status Separated (PMARITAL=3)
- Dummy Variable for Parent Marital Status Divorced (PMARITAL=4)

The variables used to predict the Student Income Contribution component of dependent students' EFC were:

- Student Total Income (STUINC94)
- Dummy Variable based on STUINC94 LE \$1,750
- Parent Total Income (PARINC94)
- Dummy Variable based on PARINC94 GE \$60,000
- Dummy Variable for Parent Marital Status Single (PMARITAL=1)
- Dummy Variable for Parent Marital Status Separated (PMARITAL=3)
- Dummy Variable for Parent Marital Status Divorced (PMARITAL=4)



The correlation coefficients between estimated and actual EFC among those students with 1995-96 CPS records were:

- dependent .83;
- independent/no dependents .93;
- independent/with dependents .95.

For independent students, over 90 percent of the predicted values were within one thousand dollars of the actual value for the EFC. As shown in Table I.2, the results for dependent students were less satisfactory, with only about half of the values within one thousand dollars. When the equations were tested using the 1996-97 CPS records for those students who had financial aid application data available for both years, the results were similar.

Table I.2—Differences between actual and predicted EFC, by type of student dependency

		Stud	ent dependency ty	pe
Difference	Total	Dependent	Independent, no dependents	Independent with dependents
Within \$1,000	75.8	53.4	90.7	93.9
\$100 or less	35.0	12.7	35.7	69.8
\$101-250	10.3	9.2	15.0	6.5
\$251- 500	15.9	11.8	27.6	8.6
\$501-1000	14.6	19.7	12.4	9.0
Over \$1,000	24.2	46.6	9.3	6.1

The composite EFC variable in the analysis file represents the actual recorded EFC (if available) or the EFC estimated by regression for the cases with no recorded information. The distribution of the recorded, imputed, and composite EFC values are shown in Table I.3. Since higher income students and families are less likely to apply for financial aid, approximately one-half of the imputed EFC's are in the ranges above 9,500.

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Table I.3—Frequency distributions of recorded, imputed, and composite EFC

		Тур	e of EFC val	ue consider	ed	
	Reco	rded	Imp	uted	Comp	osite
Value of EFC	Number	Percent	Number	Percent	Number	Percent
Total	31,373	100.0	17,016	100.0	48,389	100.0
zero	9,616	30.7	1,349	7.9	10,965	22.7
1-1500	5,557	17.7	979	5.8	6,536	13.5
1501-2500	2,657	8.5	814	4.8	3,471	7.2
2501-3500	2,088	6.7	875	5.1	2,963	6.1
3501-4500	1,795	5.7	979	5.8	2,774	5.7
4501-5500	1,469	4.7	918	5.4	2,387	4.9
5501-6500	1,131	3.6	1,051	6.2	2,182	4.5
6501-7500	942	3.0	644	3.8	1,586	3.3
7501-8500	783	2.5	710	4.2	1,493	3.1
8501-9500	718	2.3	623	3.7	1,341	2.8
9501-12500	1,582	5.0	2,165	12.7	3,747	
12501-17500	1,396	4.4	2,597	15.3	3,993	7.7
17501-22500	719	2.3	1,158	6.8	1,877	8.3
22501+	920	2.9	2,154	12.7	3,074	3.9 6.4

Table I.4 compares the average income by EFC level and dependency status before and after imputation. Table I.5 compares the income distribution of dependent and independent students before and after the EFC imputations, as well as the average actual EFC and composite EFC for each income level before and after imputation.

Table I.4—Average total income by recorded and composite EFC and student dependency status

	Depende	nt parents	-	endent endents	Independent wit	h dependents
EFC range	EFC recorded	EFC composite	EFC recorded	EFC composite	EFC recorded	EFC composite
Total	\$45,504	\$54,551	\$13,093	\$20,448	\$18,921	\$26,450
zero	16,087	15,038	3,368	3,074	9,220	9,211
1-1500	23,450	22,238	5,990	5,898	23,071	21,995
1501-2500	32,409	30,466	9,443	9,132	30,527	26,958
2501-3500	38,133	36,137	12,366	11,821	36,115	30,146
3501-4500	42,754	40,458	15,014	14,483	41,001	31,039
4501-5500	48,120	45,569	18,024	17,328	44,228	34,145
5501-6500	55,005	51,575	20,954	20,264	48,575	34,420
6501-7500	57,497	54,853	23,247	23,220	50,455	41,376
7501-8500		57,958	26,362	25,883	53,435	36,583
8501-9500	1	62,209	28,741	28,405	55,350	42,226
9501-12500	•	69,019	33,948	34,319	58,672	47,781
12501-17500	1	82,636	43,261	45,742	70,396	47,059
17501-22500		92,605	52,486	59,448	78,733	55,520
22501+	'	160,905	64,106	94,071	89,229	90,921_





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Table I.5—Distribution of recorded and composite EFC by dependency and income

Student dependency status and	CI	C recorded	gradina di Sagar Ti	EFC composite						
income	Number	Percent	Average	Number	Percent	Average				
Dependents				<del>                                     </del>	<u> </u>					
Total	16,598	100.0	6,289	24,218	100.0	8,179				
Under \$15,000	2,888	17.4	814	3,550	14.7	845				
\$15-\$30,000	3,442	20.7	1,314	4,177	17.2	1,563				
\$30-\$45,000	3,055	18.4	3,419	4,051	16.7	3,700				
\$45-\$60,000	2,635	15.9	6,434	3,811	15.7	6,552				
\$60-\$75,000	1,936	11.7	10,191	3,152	13.0	10,491				
\$75-\$100,000	1,631	9.8	14,859	2,814	11.6	14,231				
\$100-\$125,000	586	3.5	20,053	1,435	5.9	20,353				
\$125-\$150,000	198	1.2	28,469	403	1.7	27,560				
Over \$150,000	227	1.4	38,583	825	3.4	42,611				
Independent										
No dependents										
	<b>7</b> 000			}						
Total Under \$5,000	7,998	100.0	3,679	13,593	100.0	6,074				
\$5-\$10,000	2,855	35.7	493	3,433	25.3	424				
\$10-\$20,000	1,678	21.0	1,642	2,285	16.8	1,668				
	1,770	22.1	4,012	2,962	21.8	4,067				
\$20-\$30,000	810	10.1	7,070	1,799	13.2	7,148				
\$30-\$50,000	600	7.5	11,024	1,736	12.8	11,429				
Over \$50,000	285	3.6	20,431	1,378	10.1	23,625				
ndependent										
With dependents										
l'otal	6,777	100.0	1,441	10,578	100.0	4,996				
Jnder \$5,000	1,510	22.3	192	1,756	16.6	177				
55-\$10,000	1,260	18.6	114	1,519	14.4	287				
310-\$20,000	1,619	23.9	306	2,194	20.7	1,006				
20-\$30,000	1,051	15.5	1,013	1,563	14.8	2,905				
30-\$50,000	849	12.5	3,080	1,846	17.5	7,588				
Over \$50,000	488	7.2	10,574	1,700	16.1	18,435				

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## Appendix J

Comparison of NPSAS:96 CATI Respondents and Nonrespondents



Table J-1—Comparison of NPSAS:96 CATI respondents and nonrespondents among study respondents

	CATI res	pondents	CATI non	respondents
	Sample size	Percent estimate	Sample size	Percent estimate
Age				
19 or younger	11,307	19.43	2,301	14.96 <b>°</b>
20 to 23	7,949	31.03	1,684	31.12
24 to 29	5,206	20.82	1,377	24.67°
30 to 39	4,040	15.98	930	15.95
40 or older	2,826	12.75	670	13.31
Race				
White, non-Hispanic	22,301	72.64	4,598	67.56 <b>*</b>
Black, non-Hispanic	3,692	10.94	942	12.30
Hispanic	3,002	9.28	716	9.04
Asian/Pacific Islander	1,882	5.81	522	8.73*
American Indian/Alaskan Native	257	0.80	103	1.23
Other	194	0.53	81	1.14
Gender				
Male	13,317	44.22	3,043	45.54
Female	18,011	55.78	3,919	54.46
Income				
Dependent: less than \$20,000	3,249	7.79	786	8.52
Dependent: \$20,000 to \$39,999	3,895	10.36	685	8.92
Dependent: \$40,000 to \$59,999	3,767	10.14	711	8.87
Dependent: \$60,000 to \$79,999	2,670	7.51	563	6.65
Dependent: \$80,000 to \$99,999	1,393	3.46	330	4.15
Dependent: \$100,000 or more	1,897	4.97	353	4.01°
Independent: less than \$10,000	4,988	15.01	1,560	20.34
Independent: \$10,000 to \$19,999	3,049	11.74	776	13.45
Independent: \$20,000 to \$29,999	2,038	8.51	457	9.41
Independent: \$30,000 to \$49,999	2,282	10.43	432	8.47
Independent: \$50,000 or more	2,099	10.09	309	7.22 <b>°</b>

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Table J-1—Comparison of NPSAS:96 CATI respondents and nonrespondents among study respondents (continued)

	CATI respondents		CATI nonrespondents	
	Sample size	Percent estimate	Sample size	Percent estimate
Receipt of any aid			<del>                                     </del>	
Yes	22,460	58.22	3,966	39.63*
No	8,868	41.78	2,996	60.37*
Receipt of federal aid				
Yes	17,977	40.43	3,317	29.98*
No	13,351	59.57	3,645	70.02*
Receipt of state aid				
Yes	5,621	13.48	902	9.85*
No	25,707	86.52	6,060	90.15*
	İ	ı		
Receipt of institution aid				
Yes	7,658	17.71	1,259	13.28*
No	23,670	82.29	5,703	86.72*

#### Notes:

- 1. There were 38,995 eligible students selected for the CATI subsample which resulted in 31,328 respondents and 7,667 nonrespondents. This table excludes 705 of the 7,667 CATI nonrespondents because they were also study nonrespondents and therefore had missing data for the analysis variables of interest. These exclusions could cause some bias in the nonrespondent estimates, but we expect that it is negligible because of the relatively small number of students excluded.
- Tests for significant differences between the distributions of the respondents and nonrespondents were performed for each
  of the eight primary variables at the (0.05 / 8) level to account for multiple comparison effects. Except for gender, all of
  the variables were found to be significant.
- 3. Within each variable, the category percentages of respondents and nonrespondents were tested for significant differences at the (0.05 / (c -1)) level, where c is the number of categories. Estimates that were found to be significantly different are flagged with an asterisk.
- 4. The effects of these significant differences on the CATI-based estimates are mitigated by the CATI nonresponse weight adjustments, which explicitly accounted for differences in age distribution and aid status.
- 5. Some of the statistically significant differences may not be of practical significance (e.g., 4 percent versus 5 percent for dependent students with incomes of \$100,000 or more).

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<sup>•</sup> Difference between respondents and nonrespondents is significant at the 0.05/(c-1) level, where c is the number of categories within the primary variable.

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