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National Study of Postsecondary Faculty

## 2004 National Study of

 Postsecondary Faculty (NSOPF:04) Methodology ReportU.S. Department of Education Institute of Education Sciences NCES 2006-179

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# 2004 National Study of Postsecondary Faculty (NSOPF:04) <br> Methodology Report 

Technical Report

May 2006

Ruth Heuer<br>Brian Kuhr<br>Mansour Fahimi<br>T.R. Curtin<br>Marjorie Hinsdale<br>Lisa Carley-Baxter<br>Pat Green<br>RTI International

Linda Zimbler
Project Officer
National Center for
Education Statistics

## U.S. Department of Education

Margaret Spellings
Secretary

## Institute of Education Sciences

Grover J. Whitehurst
Director

## National Center for Education Statistics

Mark Schneider
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Aurora D'Amico
(202) 502-7334
aurora.d'amico@ed.gov

## Executive Summary

The 2004 National Study of Postsecondary Faculty (NSOPF:04), conducted by RTI International (RTI) and sponsored by the U.S. Department of Education's National Center for Education Statistics (NCES), is a nationally representative study that collects data regarding the characteristics, workload, and career paths of full- and part-time postsecondary faculty and instructional staff at public and private not-for-profit 2- and 4-year institutions in the United States. Conducted previously in 1988, 1993, and 1999, it serves a continuing need for data on faculty and instructional staff.

For the first time, NSOPF:04 is being conducted as a component study of the 2004 National Study of Faculty and Students (NSoFaS:04). The student component-the 2004 National Postsecondary Student Aid Study (NPSAS:04)—is a nationally representative study of students enrolled in all levels of postsecondary education. Historically, there has been considerable overlap in the institutions selected for participation in NSOPF and NPSAS; therefore, institution sampling and contacting activities for both studies were coordinated to help minimize response burden on institutions and to improve data collection efficiency.

This report describes the methodology and findings of NSOPF:04, which took place during the 2003-04 academic year. A field test, conducted in the 2002-03 academic year, was used to plan, implement, and evaluate methodological procedures, instruments, and systems proposed for use in the full-scale study. The 2004 National Study of Postsecondary Faculty Field Test Methodology Report (Heuer et al. 2004) is available from NCES.

This methodology report is designed to report solely for NSOPF:04. NPSAS:04 procedures and results-provided in a separate report-are discussed here only as they impact or overlap with those outlined for NSOPF:04.

## Target Population and Sample Design

The NSOPF:04 sample consists of postsecondary institutions and their full- and part-time faculty and instructional staff. The sampled institutions represent all public and private not-forprofit Title IV-participating, degree-granting institutions in the 50 states and the District of Columbia, as reported in the 2002 Integrated Postsecondary Education Data System (IPEDS) data files. Stratified, systematic samples of institutions and faculty were designed to allow detailed comparisons and high levels of precision. A customized cost/variance optimization program was implemented to efficiently secure targeted levels of precision for key estimates.

A two-stage sampling methodology was utilized. In the first stage, the institution sample was drawn based on a probability proportional to size (PPS) selection methodology, where each institution was assigned a composite measure of size (MOS) that reflected the number of eligible faculty and instructional staff in each of six strata. A sample of 1,080 postsecondary institutions was selected for participation; $1,070^{*}$ of these were eligible. Each institution was asked to provide a list of all of the full- and part-time faculty and instructional staff that the institution employed during the fall 2003 term. Institutions were asked to include all employees with faculty

[^0]status (both instructional and non-instructional) and all others with instructional responsibilities, regardless of faculty status. A total of 980 institutions provided a list suitable for sampling.

In the second stage of sampling, full- and part-time faculty and instructional staff employed by participating institutions as of November 1, 2003 were selected. Sampling was conducted on a flow basis, as lists were received, checked for accuracy, and processed. A total of 35,630 faculty were sampled from participating institutions. Of these, 34,330 were eligible.

## Instrumentation

The NSOPF:04 institution questionnaire was designed to be self-administered via the Internet; the NSoFaS:04 website for institutional participation provided secure access to the questionnaire and information about each component of the study. To expedite completion, it could also be administered as a computer-assisted telephone interview (CATI), if necessary. The instrument was divided into major sections that collected information on the number of faculty and instructional staff employed at the target institution, the policies and practices that affected full-time faculty and instructional staff, the policies and practices that affected part-time faculty and instructional staff, and the percentage of undergraduate instruction assigned to various instructional personnel.

The NSOPF:04 faculty instrument was also designed as a web-based instrument for selfadministration via the Internet and by CATI for nonresponse follow-up. The faculty website, like the institution website, provided secure access to the self-administered questionnaire as well as additional information about the study.

Both instruments were designed to accommodate the mixed-mode data collection approach and to ensure the collection of high-quality data. Design considerations included appropriate question wording for both self-administered and telephone interviews, and checks for out-of-range or inconsistent values. The faculty instrument consisted of the following eight sections grouped by topic:

- employment during the fall 2003 term (including academic rank, tenure status, and field of teaching);
- academic and professional background (including highest degree earned and employment history);
- institutional responsibilities and workload (including instructional activities and other work responsibilities performed in a typical week);
- scholarly activities (including productivity, funding of scholarly activities, and field of research);
- job satisfaction and retirement plans;
- monetary compensation (including income from the institution and other sources, structure of the employment contract, and household income);
- sociodemographic information (including gender, race, date of birth, marital status, number of dependent children, and citizenship); and
- opinions about working conditions at the institution.


## Institution Contacting

Sampled institutions were contacted by mail, e-mail, and telephone beginning in spring 2003 to allow institutions sufficient time to plan for the study and to resolve any potential roadblocks to participation. Institution contacts were designed to verify institutional eligibility, secure timely participation in each survey component, and identify a staff person at each institution - called the Institution Coordinator-to respond to all NSoFaS:04 data requests. The Institution Coordinator was mailed an introductory letter and accompanying information packet, and then contacted by telephone to confirm the institution's intent and ability to participate within schedule constraints. At this time, each coordinator was asked to complete a Coordinator Response Form that confirmed the data items requested for each component of NSoFaS:04 and the projected deadlines for completion of the study. Upon request, project staff prepared additional information packets for Institutional Review Boards (IRBs) and other deliberative bodies within institutions to secure the institution's participation.

Beginning in fall 2003, each Institution Coordinator was mailed a binder containing complete specifications for participation. Institution Coordinators were asked to provide electronic lists of all eligible faculty and instructional staff on November 1, 2003, and to complete the institution questionnaire by December 6, 2003. Follow-up activities continued with the Institution Coordinator until all requested data was supplied.

Of the 1,070 eligible institutions, 980 ( 91 percent unweighted and weighted) provided faculty lists, and 920 ( 86 percent unweighted; 84 percent weighted) completed the institution questionnaire.

## Help Desk and Interviewer Training

Training programs were developed for help desk operators who would respond to questions of sample members attempting to complete the web-based survey and for telephone interviewers who would conduct the nonresponse follow-up. Help desk operators received specific training in "frequently asked questions" regarding the instrument and technical issues related to completion of the self-administered questionnaire via the Internet. In addition, help desk operators received the same training as telephone interviewers because they were expected to complete the instrument over the telephone if requested by a caller. The telephone interviewer training focused on techniques for successfully locating and interviewing sample members, and covered such topics as administrative procedures required for case management, quality control of interactions with sample members and other contacts, and the organization and operation of the web-based faculty instrument to be used in data collection.

## Faculty Locating and Survey Completion

NSOPF:04 data collection procedures were designed to locate sample members, encourage prompt completion of the self-administered questionnaire via the Internet, and conduct telephone interviews with nonrespondents.

Upon receipt of faculty lists, contact information for the sampled faculty and instructional staff was reviewed and assessed for completeness. Incomplete information was supplemented by searches of the institution's website for telephone and address information. Intensive tracing was performed when all telephone numbers for a respondent were exhausted.

Faculty data collection utilized a mixed-mode approach; sample members could participate either by web-based self-administered questionnaire or by an intervieweradministered telephone interview. The participation of sample members was initially requested in a letter, which provided both instructions for completing the web questionnaire and completing the interview via CATI. Periodic reminder letters and e-mail messages were sent to nonrespondents to encourage their participation.

After 4 weeks, interviewers began calling the sample members directly to attempt a CATI interview. An early-response incentive was provided to encourage prompt completion of the instrument. Incentives were also offered to sample members who refused or were unresponsive.

Of the 34,330 eligible sample members, 26,110 ( 76 percent, unweighted and weighted) completed the faculty questionnaire during a field period from January to October of 2004. Seventy-six percent of respondents completed the self-administered web questionnaire, and 24 percent were interviewed by telephone. The average time to complete the survey was 30 minutes.

## Evaluation of Operations and Data Quality

Evaluations of operations and procedures focused on the joint institution contacting endeavor, the timeline for data collection from institutions (faculty lists and institution questionnaires) and faculty (CATI and self-administered interviews), tracing and locating procedures, refusal conversion efforts, the effectiveness of incentives, and the length of the faculty interview.

Results of the data quality evaluations included the following:

- Eighty-two percent of faculty list counts were within 10 percent of the corresponding institution questionnaire counts. There were greater variances between list counts and IPEDS, which is based on a narrower definition of faculty. Patterns of discrepancies between IPEDS and list data followed expected patterns, with list counts larger than those from IPEDS.
- Item nonresponse was below 15 percent for 87 of the 90 items in the institution questionnaire and for 141 out of the 162 items in the faculty questionnaire.
- Of the 26,550 eligible sample members who started the interview, 570 ( 2 percent) broke off before completing the interview. Of these, 430 broke off before completing the workload section and were not considered to be partial completes. Of the 140 partial completes, 48 percent broke off in the scholarly activities section; 9 percent broke off in the job satisfaction section; 29 percent in the compensation section; 11 percent in the characteristics section; and 4 percent in the opinions section.
- A new assisted coding system, used to code field of teaching, highest degree field, and principal field of scholarly activity, coded 77 percent of verbatim strings; 23 percent of strings required manual coding.
- A recoding of 10 percent of teaching, research, and highest degree verbatim strings showed 71 percent were coded correctly, 13 percent incorrectly, and the remaining 15 percent were too vague to code. The coding performed by web respondents was more often accepted as correctly coded than that done by CATI interviewers.
- Of the approximately 25,760 postsecondary institutions coded in the faculty instrument, 1,130 (4 percent) were initially deemed uncodeable. Based on the institution information collected, however, 1,030 of these institutions were positively identified and recoded.


## NSOPF:04 Data Files and Products

NSOPF:04 data can be accessed both through the NCES Data Analysis System (DAS) for public use and through electronically documented, restricted access data files (with associated Electronic Codebooks). The public-use DAS may be accessed on the NCES website at http://nces.ed.gov/das/.

Using DAS, researchers are able to

- create their own analysis tables;
- view the highlights of report findings, with figures and tables, for various postsecondary topics;
- see a comprehensive listing of analyses regarding postsecondary education and download the reports; and
- view and download DAS table parameter files (TPFs) used to generate report tables.

An ongoing series of descriptive statistical reports may be accessed online or ordered through NCES as they are released. Descriptive reports focus on topics of interest, such as undergraduate teaching, teaching with technology, distance education instruction, gender and racial/ethnic composition of the faculty population, tenure status, work activities and compensation, and characteristics of part-time faculty. Publications available for public use may be downloaded or ordered at http://nces.ed.gov/pubsearch/getpubcats.asp?sid=011.

## Foreword

This report describes the methods and procedures used for the data collection effort of the 2004 National Study of Postsecondary Faculty (NSOPF:04). NSOPF:04 serves a continuing need for data on faculty and instructional staff, all of whom directly affect the quality of education in postsecondary institutions.

We hope that the information provided here will be useful to a wide range of interested readers and that the results reported in the forthcoming descriptive summary report will encourage others to use the NSOPF:04 data. We welcome recommendations for improving the format, content, and approach, so that future methodology reports will be more informative and useful.

C. Dennis Carroll<br>Associate Commissioner<br>Postsecondary Studies Division

Foreword

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Most of all, we are indebted to the many Chief Administrators, Institution Coordinators, institution respondents, and faculty and instructional staff members who participated in the NSOPF:04 study. Their willingness to take the time to share information made this study a success.

Acknowledgments

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## Chapter 1 Overview of NSOPF:04

This document describes the study design, procedures, and outcomes for the 2004 National Study of Postsecondary Faculty (NSOPF:04), which was conducted for the National Center for Education Statistics (NCES) of the U.S. Department of Education, Washington, DC, as authorized by Title I, Section 153, of the Education Sciences Reform Act of 2002 [PL 107279]. For the 2004 cycle, NSOPF:04 was conducted as a component study of the 2004 National Study of Faculty and Students (NSoFaS:04) under contract by RTI International, ${ }^{1}$ with the assistance of MPR Associates, Inc., and Pinkerton Computer Consultants, Inc. Results for the student component, the 2004 National Postsecondary Student Aid Study (NPSAS:04), are provided in a separate methodology report (Cominole et al.).

This introductory chapter provides an overview of NSOPF:04, including a description of the background and purpose of the study, the types of policy-relevant issues addressed, the changes to the study from previous cycles, the data and reports generated from the study, and the schedule of data collection activities.

### 1.1 Background and Purpose of NSOPF:04

NSOPF:04 was a comprehensive nationwide study of the characteristics, workload, and career paths of postsecondary faculty and instructional staff. ${ }^{2}$ The study was based on a nationally representative sample of all full- and part-time faculty and instructional staff at public and private not-for-profit 2- and 4-year degree-granting institutions in the United States. The NSOPF:04 full-scale sample consisted of 35,630 faculty and instructional staff selected from 980 sampled institutions in the 50 states and the District of Columbia. ${ }^{3}$

NSOPF:04 comprises the fourth cycle of the National Study of Postsecondary Faculty. Previous studies, conducted in 1988, 1993, and 1999 (called NSOPF:88, NSOPF:93, and NSOPF:99, respectively), provided national profiles of faculty and instructional staff in postsecondary institutions, national benchmarks for faculty productivity and workload, and information on institutional policies and practices that affect faculty. The fourth cycle of the National Study of Postsecondary Faculty, NSOPF:04, expanded the information about faculty and instructional staff in two ways: (1) it allowed for comparisons to be made over an extended period of time, and (2) it helped examine emerging issues concerning faculty, such as changes related to increased use of the Internet and distance education.

NSOPF:04 was designed to address a variety of policy-relevant issues concerning faculty, instructional staff, and postsecondary institutions. The study included faculty and institution questionnaires covering general policies concerning faculty. Information obtained from these two sources helped address important questions about postsecondary education, such as the following:

[^1]- What are the background characteristics of full- and part-time faculty?
- What are their workloads and how is their time allocated between classroom instruction and other activities?
- What are the current teaching practices and uses of technology among postsecondary faculty and instructional staff?
- How satisfied are they with current working conditions and institutional policies?
- How are faculty and instructional staff compensated by their institutions? How important are other sources of income?
- What are the career and retirement plans of faculty and instructional staff?
- What retirement packages are available to faculty and instructional staff?
- Have institutions changed their policies on granting tenure to faculty members? Are changes anticipated in the future?


### 1.2 Methodological Issues and Changes for NSOPF:04

### 1.2.1 Combining NSOPF and NPSAS

NSOPF:04 was, in one respect, unlike any previous cycle of NSOPF, as it was conducted in tandem with another major study, NPSAS:04, under one overarching contract: NSoFaS:04. NCES recognized that, historically, there has been considerable overlap in the institutions selected for participation in NSOPF:04 and NPSAS:04. By combining the two independent studies under one contract, NCES sought to minimize the response burden on institutions and to realize data collection efficiencies. The NSOPF:04 and NPSAS:04 studies retain their separate identities. The purpose of this report is to summarize the methodology of NSOPF:04; sampling and data collection procedures for NPSAS:04 are referred to only as they are combined with, or impact, the parallel procedures for NSOPF:04.

The combination of NSOPF:04 and NPSAS:04 into NSoFaS:04 had important implications for the NSOPF:04 institution sample design and institution contacting procedures. Institutions for the NSOPF:04 sample were selected as a subsample of the NPSAS:04 sample institutions. ${ }^{4}$ This combination resulted in a somewhat larger sample of institutions for the fullscale study than previous NSOPF cycles (1,070 eligible institutions compared to 960 in 1999) and created a need to balance the design requirements of both studies in all institution-related study procedures.

### 1.2.2 Institution Sampling and List Collection

Apart from the changes necessitated by combining NSOPF:04 and NPSAS:04, as noted above, the key change in sampling procedures for NSOPF: 04 was its use of a customized cost/variance optimization technique. This procedure was designed to identify the allocation that would accommodate all analytical objectives of this survey while minimizing data collection

[^2]costs. As with the institution-level sampling, a customized cost/variance optimization technique was used to determine the optimal allocation of faculty to the sampling strata.

In previous cycles, delays in receiving faculty lists created critical delays in sampling and contacting respondents during the time optimal to reach them (i.e., prior to the close of the regular academic year). Because the perceived burden of NSoFaS:04 would likely be greater than that of the individual studies by themselves, an advance notification and early contacting strategy was developed for this cycle. The purpose of advance notification and early contacting was to provide sufficient time to resolve any roadblocks to participation, allow the Institution Coordinator sufficient time to plan staffing and resources for the study, and to allow sufficient time for the completion of any review process the institution required, thereby facilitating the finish of data collection prior to the deadline.

For faculty list collection, procedures were developed that would encourage institutions to provide lists of faculty and complete related documentation (including the institution questionnaire) online. On the $\mathrm{NSoFaS}: 04$ website, a secure tool for uploading lists was provided to eliminate the need for institutions to send data files through conventional mail.

The institution questionnaire was designed as a single integrated web/computer-assisted telephone interview (CATI) instrument; there was no hardcopy instrument, although a facsimile was provided to allow dissemination of questions to different departments.

Table 1 summarizes the data collection schedule for the full-scale study.
Table 1. Schedule of major NSOPF:04 data collection activities: 2004

| Activity | Start date ${ }^{1}$ | End date ${ }^{2}$ |
| :---: | :---: | :---: |
| Select institution sample | May 22, 2002 | August 25, 2002 |
| Institutional recruitment/early contacting of institution coordinators ${ }^{3}$ | March 10, 2003 | September 29, 2003 |
| Obtain faculty lists ${ }^{4}$ | September 29, 2003 | July 11, 2004 |
| Implement institution questionnaire | September 29, 2003 | October 22, 2004 |
| Select faculty samples | November 6, 2003 | July 12, 2004 |
| Send mail and e-mail to faculty | January 15, 2004 | October 1, 2004 |
| Implement faculty web questionnaire | January 15, 2004 | October 6, 2004 |
| Implement faculty CATI interviewing | February 12, 2004 | October 5, 2004 |

${ }^{1}$ This is the date on which the activity was initiated for the first applicable institution and/or its associated faculty.
${ }^{2}$ This is the date on which the activity was completed for the last applicable institution and/or its associated faculty.
${ }^{3}$ The Chief Administrator's office at each institution was contacted to appoint an Institution Coordinator, who served as the primary point of contact to deal with specific survey-related questions, correspondence, and follow-up.
${ }^{4}$ Faculty sampling rates were determined based upon frame counts using Integrated Postsecondary Education Data System (IPEDS) information, and selected on a rolling basis as lists were received.
NOTE: CATI = computer assisted telephone interview.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 1.2.3 Faculty Sampling and Data Collection

Precision goals for NSOPF:04 were to secure national-level survey estimates with precisions comparable to or better than those of NSOPF:99 for the overall faculty population. As with institution-level sampling, a customized cost/variance optimization technique was used to allocate the sample faculty to the institution and person strata while minimizing cost and
variance. Further details about faculty sampling may be found in Section 2.1; sample allocation to strata is fully detailed in appendix A."

Sample size was significantly larger than in the previous cycle: 35,630 faculty were sampled for NSOPF:04; of which, 34,330 were eligible. The final eligible sample for NSOPF:99 was 19,210 . Criteria for faculty eligibility are discussed in section 2.1.2.

Prior to sampling, faculty counts from all lists provided by participating institutions were checked against both the Integrated Postsecondary Education Data System (IPEDS) and the counts provided by the institution on their institution questionnaire. (In 1999, the IPEDS comparison was used as a quality control check only when institution questionnaire counts were absent). As in NSOPF:99, institutions were contacted to resolve any discrepancies between data sources.

As in past cycles, faculty data collection utilized a mixed-mode approach; however, for NSOPF:04, sample members could participate only by a web-based self-administrated questionnaire or by an interviewer-administered telephone interview-there was no hardcopy version of the questionnaire. The participation of sample faculty members was initially requested in a letter that provided both instructions for completing the web questionnaire and calling to complete the interview via CATI. After 4 weeks, interviewers contacted the sample faculty members who had not completed the questionnaire to attempt a telephone interview. An earlyresponse incentive was provided to encourage prompt completion of the instrument. Refusal or nonresponse incentives were also offered to selected sample members. Incentives are discussed in section 3.2.5.

### 1.3 NSOPF:04 Products

Data from the full-scale study will be used by researchers and policymakers to examine a wide range of topics, including who faculty are, what they do, and whether and how they are changing over time. NSOPF:04 provides data on each of these topics. The NCES Data Analysis System (DAS) for public release has been constructed from the data and is available to the public at http://nces.ed.gov/das. Electronically documented, restricted access data files with associated Electronic Codebooks (ECBs) are also available to qualified researchers.

The following types of reports are products of NSOPF:04: (1) this methodology report, providing details of sample design and selection procedures, data collection procedures, weighting methodologies, estimation procedures and design effects, and the results of nonresponse analyses; and (2) a series of descriptive statistical reports on key topics of interest. These topics include undergraduate teaching, faculty work activities and compensation, gender and racial/ethnic composition, and characteristics of part-time faculty. NSOPF:04 publications can be accessed electronically through the NCES website at http://nces.ed.gov/pubsearch/getpubcats.asp?sid=011.

Special tabulations are available on a limited basis from the National Education Data Resource Center (NEDRC) upon request. Use of NEDRC services is most appropriate for well defined questions that are likely to yield a few tables. It is recommended that those requiring more extensive research and in-depth analysis apply for direct access to the restricted access data files. Questions regarding NEDRC services may be directed by e-mail to nedrc@pcci.com or to Aurora D'Amico at aurora.d'amico@ed.gov or (202) 502-7334.

The remainder of this report contains the details of various activities. Chapter 2 details the survey design and implementation. Data collection outcomes are reported in chapter 3. Chapter 4 presents evaluations of the quality of data collected from institutions and faculty. Chapter 5 details procedures for data file development and imputation. Chapter 6 reports on procedures for weighting and variance estimation.

## Chapter 2

Design and Implementation of NSOPF:04
This chapter provides a detailed summary of the design and implementation of the 2004 National Study of Postsecondary Faculty (NSOPF:04) full-scale study. Sampling of institutions and of faculty and instructional staff is discussed in detail. In addition, instrument design and data collection procedures are described.

A Technical Review Panel (TRP) meeting was held on September 8-9, 2003. The panel, comprised of nationally recognized experts in higher education, reviewed the impact of methodological changes in sampling and data collection, including combining NSOPF:04 with NPSAS:04, the elimination of paper instruments, shortening the data collection period, and revisions to the instruments. The list of panel members is provided in appendix B.

### 2.1 Sampling Design

NSOPF:04 employed a two-stage sampling methodology for selection of eligible faculty and instructional staff based on a cost/variance optimization process, details of which are provided in appendix A. In the first step, samples of eligible institutions were selected within the following 10 institutional strata:

- public doctoral;
- public master's;
- public baccalaureate;
- public associate;
- public other/unknown;
- private not-for-profit doctoral;
- private not-for-profit master's;
- private not-for-profit baccalaureate;
- private not-for-profit associate; and
- private not-for-profit other/unknown.

In the second step, samples of faculty members were selected within sampled institutions using a stratified systematic sampling where the six strata were defined in the following hierarchical order:

- Hispanic;
- non-Hispanic Black;
- Asian and Pacific Islander;
- full-time female;
- full-time male; and
- all other.

The institution frame was comprised of all 3,380 eligible postsecondary institutions, while the faculty frame included all faculty and instructional staff in the corresponding institutions, which was estimated to include approximately 1.1 million individuals (Zimbler 2001). ${ }^{5}$

The composition and eligibility definitions for these frames are outlined below.

### 2.1.1 Institution Frame

The institution frame for the NSOPF:04, like previous NSOPF cycles, consisted of all institutions meeting the following criteria:

- located in the 50 states or the District of Columbia;
- classified as participating in Title IV ${ }^{6}$ student aid programs;
- public or private not-for-profit;
- 2- or 4-year degree-granting;
- offers educational programs designed for students beyond high school;
- academically, occupationally, or vocationally oriented; and
- makes programs available to the public.

The resulting frame was a subset of that used for the National Postsecondary Student Aid Study (NPSAS:04), in that NSOPF:04 did not include private for-profit less-than-2-year non-degree-granting or Puerto Rican institutions that were included in NPSAS:04.

The institution frame for NSOPF:04 was constructed from the Winter 2001-02 Integrated Postsecondary Education Data System Data Collection (Winter:02 IPEDS) file. To allow precise survey estimates for sectors of interest to the education community, this set of institutions was stratified based on institution control and level of degree offered. Institution control distinguished between public and private not-for-profit institutions, while level of degree offered was based on the 2000 Carnegie classification system ${ }^{7}$ for segmentation of institutions. Table 2 summarizes the number of the eligible institutions for each of the resulting 10 primary institutional strata, based on the Winter:02 IPEDS file.

[^3]Table 2. Institution frame for the NSOPF:04, by Carnegie code, institution control, and degree granted: 2004

| Degree granting | Total | Carnegie code | Public | Private not-for-profit |
| :--- | ---: | ---: | ---: | ---: |
| Total | 3,380 | $\dagger$ | 1,700 | 1,680 |
|  |  |  |  |  |
| Doctoral | 300 | 15,16 , and 52 | 190 | 110 |
| Master's | 590 | 21 and 22 | 270 | 320 |
| Bachelor's | 570 | 31,32, and 33 | 90 | 480 |
| Associate's | 40 and 60 | 1,030 | 150 |  |
| Other/unknown | 730 | 110 | 620 |  |

$\dagger$ Not applicable.
NOTE: For sampling purposes, public baccalaureate, private associate, and other/unknown institutions are collapsed into a single stratum. Definitions of Carnegie codes are available at http://www.carnegiefoundation.org/classification. The institution universe counts include institutions that were added after the sample was selected to account for institutions that became eligible for NSOPF:04 after construction of the institution sampling frame from the Winter:02 IPEDS. Also, the 44 institutions that had an unknown Carnegie code at the time of sample selection have been reassigned to their appropriate strata. Therefore, there are no longer any institutions with unknown Carnegie codes in the sample, but some still remain in the universe. Numbers have been rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2000.

### 2.1.2 Faculty Frame

The second-stage sampling frame for NSOPF:04 includes faculty and instructional staff in the eligible postsecondary institutions. This includes both instructional faculty and faculty with no instructional responsibilities (e.g., research or administrative faculty) as well as staff with instructional responsibilities regardless of faculty status. In summary, eligible individuals for the NSOPF:04 study included any faculty and instructional staff who

- were permanent, temporary, adjunct, visiting, acting, or postdoctoral appointees;
- were employed full- or part-time by the institution;
- taught credit or noncredit classes;
- were tenured, nontenured but on tenure track, or nontenured and not on tenure track;
- provided individual instruction, served on thesis or dissertation committees, advised, or otherwise interacted with first-professional, graduate, or undergraduate students;
- were in professional schools (e.g., medical, law, dentistry); or
- were on paid sabbatical leave.

Ineligible individuals for NSOPF:04 included staff who:

- were graduate or undergraduate teaching or research assistants;
- had instructional duties outside of the United States, unless on sabbatical leave;
- were on leave without pay;
- were not paid by the institution, e.g., those in the military or part of a religious order;
- were supplied by independent contractors; or
- who otherwise volunteer their services.


### 2.1.3 Institution Sample Selection

The administration of NSOPF:04 consisted of a sample of 35,630 faculty and instructional staff across a sample of 1,080 institutions in the 50 states and the District of Columbia. This section provides details regarding the composition and construction of the institution sampling frame and methods used for selection of the institution sample.

## Institution frame construction

The institution sample was selected using Chromy's sequential probability minimum replacement (PMR) sampling algorithm (Chromy 1979) to select institutions with probabilities proportional to a composite measure of size, details of which are provided in appendix A. For this purpose, each institution was assigned a measure of size (MOS) based on the number of eligible faculty and instructional staff and students in the given institution. Specifically, the composite size measure was the sum of cross products of sampling rates and population sizes for the groups, operating as the expected combined sample size at an institution. This measure was designed to ensure that student and faculty in certain minority strata would have a higher chance of selection. For faculty, these minority strata included:

- Hispanic;
- non-Hispanic Black or African American;
- Asian and Pacific Islander;
- female, full-time employee;
- male, full-time employee; and
- all others.

It should be noted that the MOS for each institution was calculated to reflect the number of students in the given institutions, since for this administration the institution samples for NPSAS:04 and NSOPF:04 were selected jointly. That is, precision requirements for NSoFaS:04 were considered jointly by reflecting both the faculty and student design objectives. Faculty counts needed for MOS calculations were initially obtained from the Fall Staff Survey component of the Winter:02 IPEDS data collection. However, this source could not provide all information necessary to classify faculty members into one of the above sampling strata. For instance, in a number of institutions faculty counts were not reported, while for others reported counts were not indexed by race and ethnicity. As a result, the missing information was imputed in two steps. In the first step, unreported (missing) faculty counts were imputed, while in the second step, faculty reported as unknown race/ethnicity or nonresident aliens were distributed among the known race categories using a special procedure, details of which are provided in appendix A.

## Institution sample selection

The institution sampling frame was constructed from the IPEDS-IC files and was partitioned into institutional strata based on institutional control, highest level of offering, and Carnegie classification. ${ }^{8}$ As mentioned earlier, the sample of institutions was selected probability

[^4]proportional to size (PPS) based on the number of faculty and students at each institution, using Chromy's sampling algorithm. Sample sizes and their corresponding sampling rates were established using a customized cost/variance optimization procedure, which aimed to identify the allocation that would accommodate all analytical objectives of this survey while minimizing data collection costs.

Table 3 summarizes the distribution of the resulting sample of institutions for NSOPF:04. Subsequent to selection of the sample, the resulting institutions were contacted and asked to provide lists of eligible faculty and instructional staff for their institutions.

Table 3. Distribution of NSOPF:04 institution universe and sample, by institution control and degree granted: 2004

|  | Total |  |  | Public |  |  | Private not-for-profit |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Degree granting | Universe | Sample |  | Universe | Sample |  | Universe | Sample |
| Total | 3,380 | 1,080 |  | 1,700 | 680 |  | 1,680 | 400 |
|  |  |  |  |  |  |  | 110 | 110 |
| Doctoral | 300 | 300 |  | 190 | 190 |  | 320 | 80 |
| Master's | 590 | 200 |  | 270 | 120 |  | 480 | 130 |
| Bachelor's | 570 | 160 |  | 90 | 30 |  | 150 | 10 |
| Associate's | 1,180 | 350 |  | 1,030 | 340 |  | 60 |  |
| Other/unknown | 730 | 70 |  | 110 | 10 |  | 620 | 60 |

NOTE: The universe and sample counts include institutions that were added after the sample was selected to account for institutions that became eligible for NSOPF:04 since construction of the institution sampling frame from the Winter:02 IPEDS. Also, the 44 sample institutions that had an unknown Carnegie code at the time of sample selection were reassigned to their appropriate strata. Therefore, there are no longer any institutions with unknown Carnegie codes in the sample, but some still remain in the universe. Universe and sample counts are rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 2.1.4 Faculty Sample Selection

This section provides an overview of the faculty sample selection procedures, which include methods used for frame construction and the technical details of cost/variance optimization process for selection of the initial sample sizes and calculation of needed sampling rates.

## Faculty frame construction

The sampling frames for selection of faculty and instructional staff were constructed institution-by-institution. Each sampled institution was asked to provide a complete listing of eligible full- and part-time faculty and instructional staff. The majority of lists were delivered electronically; however, some of these lists were abstracted from online sources such as institution directories or supplied on paper.

## Faculty sample selection

The sample of faculty was selected using an equal probability stratified systematic sampling, within cells indexed by institutional and faculty strata. As detailed in the next section, a customized cost/variance optimization program was utilized.

## Determining initial faculty sample sizes and sample allocation

A special cost/variance optimization program was used to determine the desired allocation of respondents to institution-by-person strata, the goal of which was to secure at least the same level of precision for key estimates as those achieved during the previous administration of the survey. This optimization process, which is detailed in appendix A, consisted of the following steps:

- establishing precision requirements for key estimates;
- constructing a cost model specific to the structure of the NSOPF:04 sample;
- developing a relative variance model; and
- determining the optimum sample allocation.


## Faculty sample selection

Faculty members were sampled as faculty lists were received from participating institutions. Prior to selecting the faculty sample for a given institution, expected sample sizes for each faculty stratum were calculated using the institution-specific faculty list counts and sampling rates. These sampling rates were then modified, as necessary, for the reasons given below.

- Rates were increased across all faculty strata to ensure that at least ten faculty members were selected from each institution, if possible.
- Rates were increased within faculty strata to guarantee that at least one faculty member was selected per stratum within each institution, if possible.
- The sample yield was monitored throughout the months during which faculty lists were received, and the faculty sampling rates were adjusted periodically for institutions for which sample selection had not yet been performed to ensure that the desired faculty sample sizes were achieved.

Stratified systematic sampling was used to select faculty members from the faculty lists. Specifically, from each list (institution) sample faculty were selected within each faculty stratum defined by race/ethnicity, gender, and employment status using the corresponding rate for the given institution-faculty stratum, with academic field serving as an implicit sort variable. Whenever a list contained insufficient data to identify faculty strata, a systematic sample of faculty was selected using the overall sampling rate for the institution. For hard copy lists, the resulting sample was then keyed to create an electronic file. The following table 4 provides a summary of the required sample sizes, which were determined based on the cost/variance optimization process and the resulting completed interviews by faculty stratum.

Table 4. Distribution of NSOPF:04 faculty sample sizes and completed interviews by faculty stratum: 2004

| Faculty stratum | Required sample size | Completed interviews |
| :--- | ---: | ---: |
| Total | 24,500 | 26,100 |
| Non-Hispanic Black |  |  |
| Hispanic | 1,600 | 2,060 |
| Asian and Pacific Islander | 1,300 | 1,700 |
| Other full-time female | 900 | 1,610 |
| Other full-time male | 4,600 | 5,850 |
| Other part-time | 8,300 | 8,500 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

The information supplied for each sampled faculty member (e.g., name, academic field, residence) was checked against that of faculty previously selected from other institutions to identify and eliminate respondents sampled twice. Duplicates were eliminated from the sample of the current institution. Once the de-duplication process was complete and the institution's final sample file was created, the institution's final sample file was added to the master dataset. The master dataset contained all sampled faculty members and their relevant sampling information.

### 2.2 Instrumentation

This section describes the institution and faculty instruments that were developed for the NSOPF:04 full-scale study conducted during the 2003-04 academic year with a national sample of postsecondary institutions and faculty and instructional staff. Data collection for the study was by self-administered questionnaires on the Internet or computer-assisted telephone interviews (CATIs) with web nonrespondents. In contrast to the data collection approach for NSOPF:99, no paper-and-pencil questionnaire options were provided. ${ }^{9}$ Facsimiles of the electronic instruments, which provide item wording, response options, and information on respondent groups, are included in appendix C.

### 2.2.1 Development of Instrumentation

Project staff from RTI and MPR Associates were responsible, respectively, for developing and implementing study instrumentation for NSOPF:04 and for ensuring that the instruments, where possible, retained analytic comparability with earlier data collection rounds of the study. Revisions to the institution and faculty/instructional staff instruments built upon the NSOPF:99 instruments, and included the comments and suggestions of the Technical Review Panel (TRP), sample respondents contacted after the study for additional information, and other government officials and postsecondary researchers. (Copies of the NSOPF:99 data collection instruments for postsecondary institutions and faculty/instructional staff are included as appendixes A and B, respectively, in Abraham et al. 2002.) In May 2002, meetings with the TRP were conducted to review the relevance of policy issues examined in NSOPF:99, the importance of emerging issues (such as increased use of the Internet and distance education) not included in

[^5]the 1999 instruments, and the consequences of adding, revising, or deleting items from the NSOPF:99 instruments. ${ }^{10}$

Following contract award for NSOPF:04, project staff developed and tested multiple versions of the institution and faculty/instructional staff instruments. A field test version of the instrumentation was developed at the start of the 2002-03 academic year and closely reviewed by members of the study TRP, government officials, postsecondary researchers, and other interested individuals. Then during the fall and spring terms of 2002-03, field test data collection for NSOPF:04 permitted the evaluation of the revised institution and faculty/staff instrumentation under conditions comparable to those to be employed during the NSOPF:04 fullscale study. ${ }^{11}$

Several policy, methodological, and practical concerns guided the development of instrumentation for NSOPF:04. To ensure the comparability of data elements from earlier rounds of the postsecondary faculty study in 1988, 1993, and 1999, one of the primary objectives of instrumentation was to maintain the trend analyses for this national, cross-sectional study. However, this goal was balanced by the importance of adequately considering emerging issues, while at the same time developing instruments that could be completed quickly and efficiently by sample members. For example, almost 70 percent of the institution responses for the 1999 study were obtained via paper-and-pencil questionnaire, and the average time to complete the institution questionnaire was 90 minutes. For the NSOPF:99 faculty questionnaire, over one-half ( 54 percent) of the respondents completed hardcopy instruments, with an average web and paper questionnaire completion time of 51 minutes; the average CATI completion time was 55 minutes.

Based on these considerations, the goals for the NSOPF:04 instrumentation included several elements:

- All data collection would be completed electronically, using web-based selfadministered questionnaires, with telephone interviews for those who did not respond to the web self-administered questionnaires. No paper and pencil instruments would be received.
- All data collection instruments for the study would be shorter than the NSOPF:99 instruments, thus simultaneously increasing response rates while reducing the potential for bias and the need for costly refusal conversion efforts. The targets for average time to complete the instruments were set at 45 minutes for the institution questionnaire and 30 minutes for the faculty/instructional staff questionnaire.
- Consistent with the transition to all-electronic data collection, the NSOPF:04 instrumentation was designed to be easier for sample members to complete, to be easier for the study team to process, and to provide higher quality data.
- Finally, the instrumentation team sought to address emerging issues as well as to maintain comparability with earlier rounds of the study.

[^6]With these goals established, planning and design for the NSOPF:04 institution and faculty/instructional staff questionnaires began. Specification for both instruments was in RTI's Instrument Development and Documentation System (IDADS), a tool developed specifically for the design of complex electronic data collection instruments (see also section 2.5.1). Using IDADS, instrument designers entered information about each instrument item, including the variable data definition, formatting, and the desired on-screen presentation. ${ }^{12}$ For each of the NSOPF:04 instruments, designers specified the variable names and labels, values and value labels, "applies to" fields, and variable definitions (e.g., numeric, continuous, maximum and minimum values, field size, etc.).

### 2.2.2 Instrument Programming

Despite the different data collection modes for NSOPF:04, the self-administered web instruments for the institution and faculty/instructional staff respondents were identical to their corresponding CATI instruments. Both instruments were web-based products, located on U.S. Department of Education servers. The instruments were developed using Microsoft Corporation's Active Server Pages (ASP) web programming language. ${ }^{13}$ This approach resulted in a computer-assisted data collection program that facilitated the preloading of full-screen data entry and editing of "matrix-type" responses. The web and CATI system presented interviewers with screens of questions to be completed, with the software guiding the respondent through the interview. Inapplicable questions were skipped automatically based on prior response patterns. On-screen clarification was available for all items. ${ }^{14}$ The instrument also provided real-time error checking for inconsistent or out-of-range responses and minimized the potential for inadvertently skipped items.

### 2.2.3 Institution Questionnaire

Instrumentation activities for the NSOPF:04 institution questionnaire began in May 2002 with revisions to the NSOPF:99 instrument. Project staff began working with a revised version of the NSOPF:99 instrument that incorporated the lessons learned from the NSOPF:99 data collection, including the comments and suggestions for instrumentation provided by both the NSOPF TRP and a small number of study respondents who were contacted for additional information after the completion of NSOPF:99 data collection.

This information formed the input for the NSOPF:04 field test institution questionnaire that was administered to a purposive sample of 150 postsecondary institutions during the 200203 academic year. The interpretation of responses from the field sample members that completed the instrument ( 77 percent of the sample of institutions that were eligible to participate), results

[^7]of debriefing sessions with institution contact personnel for the field test who were responsible for encouraging response from the institutions, and data collection timing information for the field test also served to inform revisions to the full-scale study institution questionnaire.

After careful consideration of this input and examination of the data collected during the 1998-99 academic year-including the patterns of responses and missing data, as well as time to complete estimates-instrument revisions were implemented. Like the NSOPF:99 institution questionnaire, the NSOPF:04 instrument was divided into major sections that collected information on the number of faculty and instructional staff employed at the target institution; the policies and practices that affected, respectively, full-time and part-time faculty and instructional staff; and the percentage of undergraduate instruction assigned to various instructional personnel. Descriptions of the information included in these sections follow (see also the instrument facsimile in appendix C):

- The first section (items 1A and 1B) collected information on the number of faculty and instructional staff employed either full time or part time at the target postsecondary institution during the fall term of the target academic year (2003-04). For NSOPF:04, institution personnel were requested to provide these counts "as of November 1, 2003 (or during the fall term of the 2003-04 academic year when your faculty lists are considered complete)."
- Institution instrument items 2 through 13 defined the second section of the questionnaire and collected information on the employment of the target institution's full-time faculty and instructional staff. After first collecting information on the numbers of these personnel who entered or exited full-time employment during the previous academic year (2002-03 school year), this section examined the characteristics and policies of the target institution's tenure system, employee benefits, union representation (if any), and personnel evaluation, as applied to fulltime faculty and instructional staff.
- The third section of the institution questionnaire (items 14 through 18) examined the employment of the target institution's part-time faculty and instructional staff. This section used items similar to those for full-time faculty and instructional staff in the previous section. These items included the availability of retirement plans to part-time faculty, the availability of and institution-level support for various types of employee benefits, and the characteristics of the institution's personnel evaluation system.
- The fourth instrument section included a single question (19) that collected information on the percentage of the target institution's undergraduate instructional activities assigned to various instructional groups, including full-time faculty and instructional staff, part-time faculty and instructional staff, teaching assistants such as graduate students, and others individuals.
- The last section of the NSOPF:04 institution questionnaire (item 20) collected respondent contact information and feedback on data collection. This section attributed the item responses for the entire institution questionnaire to individual respondents at the institution, which allowed data collection staff to recontact respondents for clarification of responses. These data elements-respondent name, job title, telephone number, and e-mail address-were not maintained after data collection was completed.

Appendix D provides a crosswalk of NSOPF:04 institution questionnaire items to the institution questionnaires from NSOPF:88, NSOPF:93, and NSOPF:99. Table 5 notes how the NSOPF:04 questionnaire differs from the NSOPF: 99 questionnaire. As noted in this table, nine items from the NSOPF:99 questionnaire were eliminated from the NSOPF:04 institution questionnaire, 14 items were revised, and three items for NSOPF:99 were repeated without change.

Table 5. Content and formatting changes to the NSOPF:99 institution questionnaire in preparation for the NSOPF:04 instrument: 2004

| NSOPF:99 |  |  | NSOPF:04 |  |
| :---: | :---: | :---: | :---: | :---: |
| Item | Content | Action | Item | Changes |
| 1 | Numbers full/part-time faculty and instructional staff | Revised | 1 | Slight wording and instruction changes |
| 2 | Change in total number of full-time faculty and instruction staff over the past 5 years | Deleted |  |  |
| 3 | Policies to decrease the number of full-time faculty and instructional staff | Deleted |  |  |
| 4 | Availability of tenure system | Unchanged | 3 |  |
| 5 | Changes in full-time faculty and instructional staff between fall terms | Revised | 2 | One response option added (item 2f), slight wording change throughout, distinction among tenured, tenure track, and not tenure track eliminated |
| 6 | Number of staff considered for/granted tenure | Revised | 4/5 | Asked as two questions with first as gate item. |
| 7 | Maximum number of years on tenure track | Unchanged | 6 |  |
| 8 | Changes in tenure policy in past 5 years | Revised | $\begin{aligned} & 7 / 8 / \\ & 7 \mathrm{sp} \end{aligned}$ | Broken into three items; response options revised (Option E, discontinued tenure, asked only of respondents who answered "no" to tenure availability) |
| 9 | Other actions to reduce tenured faculty | Deleted |  |  |
| 10 | Number of full-time positions sought to hire | Unchanged | 9 |  |
| 11 | Retirement plans available to full-time staff | Deleted |  |  |
| 12 | Employee benefits available to full-time faculty and instructional staff | Revised |  | Broken into two items, part 10A serves as gate question |
|  |  |  | 10A | Response categories for benefits were changed to All, Some, None, Don't know |
|  |  |  | 10B | Fully and partially subsidized categories combined |
| 13 | Additional employee benefits available to fulltime faculty and instructional staff | Revised | 11 | Response categories for benefits changed to All, Some, None, and Don't know; Slight wording change |
| 14 | Percentage of salary contributed by institution to benefits | Deleted |  |  |
| 15 | Collective bargaining for full-time faculty and instructional staff | Revised | 12 | Percentage of faculty represented by union eliminated |
| 16 | Teacher assessment with full-time faculty and instructional staff | Revised | 13 | Response options changed to Yes, No, Don't Know; "Other, specify" option was eliminated |
| 17 | Availability of retirement plans for part-time faculty and instructional staff | Revised | 14 | Item wording revised for web data collection |
| 18 | Types of retirement plans available for parttime faculty and instructional staff | Deleted |  |  |
| 19 | Criteria for eligibility for retirement plans for part-time faculty and instructional staff | Deleted |  |  |

See notes at end of table.

Table 5. Content and formatting changes to the NSOPF:99 institution questionnaire in preparation for the NSOPF:04 instrument: 2004-Continued

| NSOPF:99 |  |  | NSOPF:04 |  |
| :---: | :---: | :---: | :---: | :---: |
| Item | Content | Action | Item | Changes |
| 20 | Employee benefits available to part-time faculty and instructional staff | Revised |  | Broken into two items, part 15A serves as gate question |
|  |  |  | 15A | Response categories for benefits were changed to All, Some, None, Don't know |
|  |  |  | 15B | Fully and partially subsidized categories combined |
| 21 | Additional employee benefits available to parttime faculty and staff | Revised | 16 | Response categories for benefits changed to All, Some, None, and Don't know; Slight wording change |
| 22 | Benefit eligibility criteria for part-time faculty and instructional staff | Deleted |  |  |
| 23 | Percentage of salary contributed by institution to benefits | Deleted |  |  |
| 24 | Collective bargaining for part-time faculty and instructional staff | Revised | 17 | Percentage of faculty represented by union eliminated |
| 25 | Teacher assessment with part-time faculty and instructional staff | Revised | 18 | Response options changed to Yes, No, Don't Know; "Other, specify" option was eliminated |
| 26 | Undergraduate instruction by instructional staff type | Revised | 19 | Response options changed |

NOTE: Numbers in table correspond with the question number in the instrument.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 2.2.4 Faculty Questionnaire

The NSOPF:04 questionnaire for faculty and instructional staff was divided into several sections that described the study and respondents' rights (informed consent); nature of employment; academic and professional background; instructional responsibilities and workload; scholarly activities; job satisfaction; compensation; background characteristics; and opinions. Included within the final section, where applicable, were items that collected address information for sample members who were eligible for response incentives. (See section 3.2.5 for additional information about the early-response and refusal conversion incentives.) Table 6 describes the instrument sections, including the number of forms (or screens) and data elements in each. Like the instrumentation for the study waves in 1988, 1993, and 1999, the NSOPF:04 faculty and instructional staff questionnaire emphasized descriptive and behavioral attributes rather than attitudinal measures.

The design of the faculty and instructional staff questionnaire included input from members of the NSOPF:99 TRP and representatives of offices of the U.S. Department of Education, as well as an analysis of the data collected during the 1999 study. Because the NSOPF:99 instrument took 55 minutes to complete, designers made a concerted effort to shorten the instrument and make it more efficient. ${ }^{15}$ Several questions were eliminated, and other questions were shortened or otherwise simplified. The instrument was then evaluated in a field

[^8]test carried out during the 2002-03 academic year under conditions similar to those employed during the full-scale study in 2003-04.

Table 6. Overview of the NSOPF:04 questionnaire for faculty and instructional staff: 2004

| Section | Forms/items ${ }^{1}$ | Examples of content |
| :---: | :---: | :---: |
| Total | 81/183 ${ }^{2}$ |  |
| Informed consent | 6/0 | Description of the NSOPF:04 study and respondents' rights as participants. |
| A. Nature of employment | 17/18 | Does the respondent have instructional responsibilities during the Fall 2003 term? Does the respondent have faculty status? When did the person begin working? What are the respondent's rank, tenure status, and teaching field? |
| B. Academic and professional background | 16/23 | What is the respondent's highest degree? Where, when, and in what area was it earned? Is this the respondent's first academic job? Where else did the person work? Does the respondent teach? How long has the person been teaching? |
| C. Instructional responsibilities and workload | 13/66 | How many hours during an average week does the sample member spend on instruction, research, and other activities? How many classes are taught, and what are their characteristics (e.g., duration, number/type of students, evaluation type)? What level of advising and individual instruction is offered? |
| D. Scholarly activities | 7/20 | What scholarly activities have sample members completed in their lifetime and during past 2 years? What is their principal scholarly field? Are scholarly activities funded? |
| E. Job satisfaction | 2/10 | How satisfied is the respondent with instructional duties and employment at the target school? What are the person's retirement plans? |
| F. Compensation | 7/12 | What is the respondent's compensation from the target institution and all other sources? What is the structure of the employment contract? What is the household income? |
| G. Sociodemographic characteristics | 8/13 | What is the respondent's sex, date of birth, race/ethnicity, marital status, citizenship, and disability status? Does the person support dependents? |
| H. Opinions | 2/5 | What are the respondent's opinions about the faculty reward system at the target institution? Would the sample member seek an academic career again? |
| I. Incentive information | 3/16 | Where applicable, these forms also collected address information from sample members qualified for nonresponse incentives. |

${ }^{1}$ The faculty/instructional staff questionnaire was divided into forms (screens) and items. Each form was structured to include related items. The first number is the number of forms in the section, and the second number is the number of items included on those forms. Forms and items were often skipped based on the responses to earlier forms and items.
${ }^{2}$ The number of items in the faculty questionnaire (183) differs from the number of faculty items reported elsewhere in this document (e.g., 162 analysis variables and 144 stochastically imputed variables) because some items were for internal use only (e.g., verbatim text strings used to code field of teaching [see section 4.3.3], school name and city to code IPEDS [see section 4.3.4], and contact information for sending incentives).
NOTE: IPEDS = Integrated Postsecondary Education Data System.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Following the field test, additional items were modified and eliminated to reach the desired 30-minute interview. The average CATI and web interview for the NSOPF:04 field test took 42 minutes, considerably longer than anticipated. The results of the NSOPF:04 field test reliability reinterview (Heuer et al. 2004), the policy relevance of each instrument item, and the input received from responding sample members, telephone interviewers/help desk staff, and members of the NSOPF:04 TRP were used to identify 27 forms from the full-scale study for elimination. Table 7 describes the NSOPF:04 field test items on these forms that were eliminated
following the field test. The table also provides the average time to complete each item during the field test. ${ }^{16}$ After adjusting this average time to complete by the proportion of the overall respondent population that reached the item (i.e., complicated and time-consuming items will have little impact on the average time to complete the entire interview if most respondents do not attempt the item), these item reductions were expected to reduce the average time to complete the full-scale instrument by approximately 7 minutes.

## Table 7. Items removed from the NSOPF:04 faculty/instructional staff questionnaire following the NSOPF:04 field test and estimated time savings: 2004

| Instrument change | Estimated time savings (in minutes) |
| :---: | :---: |
| Total | 7.483 |
| Q7: Part-time faculty: years employed part-time | 0.163 |
| Q17B: Holds Ph.D. in addition to professional degree | 0.005 |
| Q17C: Year received doctoral degree | < 0.001 |
| Q17C2VS: Doctoral field: verbatim | < 0.001 |
| Q17C2CD: Online coding: doctoral field | < 0.001 |
| Q17C3: Online coding: doctoral degree institution | 0.003 |
| Q17D2: Online coding: bachelor's degree institution | 0.642 |
| Q19C: Number classes taught at other postsecondary institution | 0.065 |
| Q20: Non-postsecondary education jobs related to teaching field | 0.102 |
| Q22: Total number of postsecondary institutions employed as faculty | 0.222 |
| Q25: First postsecondary faculty position-academic rank | 0.115 |
| Q29: Previous job related to teaching field | 0.178 |
| Q30: Years teaching in postsecondary institutions | 0.152 |
| Q34A-Q34D: Percent allotment of other time | 1.273 |
| Q40A-Q40G: Uses of website | 0.410 |
| Q43A-Q43D: Plan/develop instruction/employment opportunities | 0.865 |
| Q44A-Q44F: Training opportunities | 0.933 |
| Q45: Hours professional training in 2003 | 0.452 |
| Q52Aicat: Categorical items for Q52AA-AG nonrespondents | 0.105 |
| Q58: Primary funding source | 0.115 |
| Q59: Number of grants/contracts | 0.130 |
| Q60A: Total funding grants/contracts | 0.058 |
| Q60B: Range total funding grants/contracts | 0.012 |
| Q63: Age expecting to stop working at postsecondary institution | 0.338 |
| Q76A-Q76E: Type of disability | 0.015 |
| Q78: Number of dependents | 0.235 |
| Q84: Respondent comments and suggestions | 0.895 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

It should be noted that approximately 7 minutes of the overall time to complete the field test interview were associated with "transit" time-in other words, the time involved to transmit information to each respondent, to "write" the form and related text onto each sample member's screen, to transmit the responses back for storage, and to begin the transmission of the next item. Interview transit times are dependent on many factors such as server bandwidth, processing

[^9]efficiency, and instrument content (e.g., other things being equal, the transit time for a form with little text and graphic information will be less than another form with more text and graphics). Notably, transit times are often dependent on factors beyond the control of instrument designers. For example, the type of internet connection used by the sample member (telephone dial-up modem versus direct Ethernet connection with fiber optic lines) and the number of other users on the respondent's internet service provider at the time will affect transit time. Section 3.3.1 describes the interview completion time and transit times for the NSOPF:04 full-scale faculty and instructional staff questionnaire.

To reduce transmission time from that experienced in the NSOPF:04 field test, project staff carefully reviewed the code efficiency of the web applications. The project also utilized an outside and independent review of the study procedures and programs. TechSages LLP, a computer consulting firm located in Durham, NC, reviewed the NSOPF:04 field test computer code. The group offered several recommendations for optimizing the code to improve execution speed including changes to database connectivity implementation, code structure, and variable scoping.

In addition to the changes in data processing and the reduction in the number of items included in the questionnaire noted above, instrument designers also implemented several other content related changes for the full-scale study. These included the following:

- Instrument designers eliminated the faculty/instructional staff questionnaire's online help and replaced it with more targeted information placed directly on the form containing the question. For the field test, a callable help screen was available for each form of the faculty interview. By selecting a help button at the bottom of each form, the respondent could review a screen of related definitions, examples, and other information about the item. While these help screens provided useful information, accessing them did require the transmission of an additional form and, consequently, an increase in the interview completion time. While adding text, such as definitions or examples, does increase the transit time of a screen, the increase is negligible relative to the increases in interview time that would be obtained by accessing and transmitting a second web page of help text for the item. Adding definitions and examples to the original form of the interview reduced the need for help screens.
- For the full-scale study's questionnaire, project staff also developed an online assisted-coding routine for respondent's academic area or discipline. Assisted coding provided significant time savings over the online coding in the field test, which used two pull-down boxes for each academic discipline. The assisted-coding procedure developed for the full-scale study eliminated pull-down boxes for common disciplines (e.g., mathematics or English), considerably reducing the time each respondent took to code academic field. The pull-down boxes were available for unusual disciplines or when the sample member was not satisfied with the result of the assisted-coding activity. To use the assisted-coding routing, the sample member entered the name of the relevant academic field, and then confirmed or discarded the results of the matches with an assisted-coding dictionary developed from the Classification of Instructional Programs (U.S. Department of Education 2002).
- Instrument developers also improved item wording, and especially screen fills to reduce item wording.
- Finally, the full-scale study instrument combined a number of instrument screens, thus reducing the number of overall forms and the number of data transmissions. (For example, forms Q65 and Q80 in the full-scale study instrument combined previously independent forms.)
Table 8 compares and contrasts the faculty and instructional staff instruments used for the NSOPF:04 and NSOPF:99 full-scale studies. As noted in this table, 39 items were eliminated from the 1999 instrument, 51 items were simplified or otherwise revised, 1 item was added, and 3 items were unchanged.

Table 8. Content and formatting changes to the NSOPF: 99 faculty questionnaire in preparation for the NSOPF:04 instrument: 2004

| NSOPF:99 |  |  | NSOPF:04 |  |
| :---: | :---: | :---: | :---: | :---: |
| Item | Content | Action | Item | Changes |
| 1 | Instructional duties | Revised | 1 | Wording change to highlight that teaching includes credit and noncredit courses; on screen descriptions of instruction duties |
| 2 | Credit status of instructional duties | Revised | 2 | Response options for instructional duties item changed to $\mathrm{Yes} / \mathrm{No}$ for credits awarded for classes |
| 3 | Principal activity | Revised | 4 | Pubic service option added; other specify for administration removed |
| 4 | Faculty status | Revised | 3 | Faculty status "defined" as at target institution |
| 5 | Full- and part-time status | Revised | 5 | Response category order changed |
|  |  | New | 6 | For part-time faculty/instructional staff, is position your primary employment |
| 6 | Reason working in part-time position | Revised | 8 | Wording for response option modified; reason for holding PT position eliminated |
| 7 | Year began job | Revised | 9 | Stem wording revised |
| 8 | Rank | Revised | 10 | Open-ended specify field eliminated; examples given for "other" response option |
| 9 | Year achieved rank | Revised | 11 | Stem modified to specify at "any institution"; response population subset to professors or associate professors only |
| 10 | Tenure status/date of tenure | Revised | 12/13 | Stem modified to specify tenure at "any institution" |
| 11 | Duration of contract | Deleted |  |  |
| 12 | Type of appointment | Deleted |  |  |
| 13 | Chair of department | Deleted |  |  |
| 14 | Principal field of teaching | Revised | 16 | Assisted coding of teaching field discipline using Classification of Instructional Programs added |
| 15 | Principal field of research | Revised | 54 | Stem wording changed to field of "scholarly activities"; assisted coding of discipline using Classification of Instructional Programs added; response population subset to respondents without specified teaching field |
| 16 | Degrees obtained (year received, field, and name, city, state of institution awarding) | Revised |  | Formatted for web data collection, stem wording changed |
|  |  |  | 17A1 | Highest degree only collected |
|  |  |  | 17A1B | If highest degree reported is professional degree, does respondent also have PhD |
|  |  |  | 17A2 | Year received highest degree |
|  |  |  | 17A3 | Assisted coding of discipline using Classification of Instructional Programs added |

See notes at end of table.

## Table 8. Content and formatting changes to the NSOPF:99 faculty questionnaire in preparation for the NSOPF:04 instrument: 2004—Continued

| NSOPF:99 |  |  | NSOPF:04 |  |
| :---: | :---: | :---: | :---: | :---: |
| Item | Content | Action | Item | Changes |
|  |  |  | 17A4 | Name, city, and state of institution awarding highest degree collected; respondent assisted online coding of institution using Integrated Postsecondary Education Data System added |
|  |  |  | 17D | Year bachelor's degree awarded (if highest degree above bachelor's); |
| 17 | Working toward a degree | Deleted |  |  |
| 18 | Degree working toward | Deleted |  |  |
| 19 | Primary employment | Deleted |  |  |
| 20 | Outside consulting | Deleted |  |  |
| 21 | Other professional employment | Revised | 18 | Stem changed to include "all" positions outside of target institution |
| 22 | Number of other professional jobs during fall term | Revised | $\begin{aligned} & 19 A \\ & 19 B \end{aligned}$ | Formatted to include gate question; number of jobs expanded to include information on "full-time jobs" at other postsecondary institutions |
| 23 | Total jobs held in postsecondary education | Deleted |  |  |
| 24 | First and most recent jobs in higher education: years held, institution type, primary responsibility, employment status and title | Revised | $\begin{aligned} & 21 / 23 / \\ & 24 / 26 \end{aligned}$ | NSOPF:04 simplified this question from 18 to 4 data elements. Item for 2004 asks if current job was first postsecondary education position, when position began, employment status, and tenure status of the position |
| 25 | Years teaching in higher education | Deleted |  |  |
| 26 | Number of positions ever held outside of higher education | Revised | 27 | Changed to positions ever held outside postsecondary education since highest degree |
| 27 | Job status of those positions | Deleted |  |  |
| 28 | First and most recent jobs outside of higher ed: Type of employer, and primary responsibility | Revised | 28 | Item simplified from 10 to 1 data elements. Item now collects only the employment sector of most recent job: first profession position outside higher education eliminated |
| 29 | Scholarly activities during career; scholarly activities during past 2 years | Revised | 52A/52B | Formatted for web instrument; joint/sole responsibility eliminated; stem wording and item strings revised |
| 30 | Average time spent in activities per week | Revised | 31 | Item strings reworded and revised to include more examples' open-ended specify field eliminated |
| 31 | Allocation of working time, preferred allocation of working time | Revised | 32 | Preferred allocation eliminated; item reformatted for web instrument; response categories combined, reworded, and simplified (e.g., asked only about time at target institution, focus changed to instructional activities, professional growth/ administration/service combined |
| 32 | Committee assignments | Revised | 48 | Reformatted for web; stem wording revised to eliminate student level and number of committees chaired and served |
| 33 | Number of classes taught | Revised | 35A | Reformatted for web; item expanded to include the number of "classes/sections" taught for credit and not for credit, wording revised to include "taught for credit toward degree" |
| 34 | Number of different courses taught | Deleted |  |  |
| 35/36 | Number of remedial classes taught; number of remedial classes not creditable towards degree | Revised | 35B | Item wording revised to include "remedial or developmental classes"; second item on distance education added |
| 37 | Number of continuing education classes taught | Deleted |  |  |
| 38 | Number of noncredit continuing education classes taught | Deleted |  |  |

See notes at end of table.

Table 8. Content and formatting changes to the NSOPF:99 faculty questionnaire in preparation for the NSOPF:04 instrument: 2004—Continued

| NSOPF:99 |  |  | NSOPF:04 |  |
| :---: | :---: | :---: | :---: | :---: |
| Item | Content | Action | Item | Changes |
| 39 | Number of students in all noncredit classes | Deleted |  |  |
| 40 | Number of classes taught for credit | Revised |  | See question 35A above |
| 41 | Details on up to five credit classes, including discipline; description (weeks class met, credit hours, hours class met/week, number teaching assistants, number students, class team taught, hours per week respondent taught, and remedial and/or distance education); level of students, instructional method; and instructional medium | Revised | 36/37 | Reformatted for web; gate item of teaching/lab assistants added; class description matrix simplified; information collected included number of weeks and hours per week respondent taught class, credits for the class, number of students, and level of students |
| 42 | Undergraduate evaluation methods | Revised | 38 | Stem wording revised, response options added, deleted, and revised; response values reworded |
| 43 | Websites | Revised | 39 | Stem wording changed to include all instructional duties; response population subset to persons with instructional duties |
| 44 | How websites used | Deleted |  |  |
| 45 | E-mail | Deleted |  |  |
| 46 | Student percentage using e-mail | Deleted |  |  |
| 47 | Hours spent responding to student e-mail | Revised | 41 | Stem wording revised to include "communicating with students"; response population subset to persons with instructional duties |
| 48 | Internet access available | Deleted |  |  |
| 49 | Individual instruction | Revised | $\begin{aligned} & \text { 46/47/ } \\ & 47 B \end{aligned}$ | Gate question added; stem wording changed; item reformatted for web |
| 50 | Contact hours with advisees | Revised | 50 | Reformatted for web; stem wording revised |
| 51 | Office hours | Revised | 51 | Stem wording expanded to include in-person and online office hours |
| 52 | Engaged in research | Revised | 53 | Stem wording revised; reference period the entire academic year |
| 53 | Type of primary research | Revised | 56 | Stem wording revised to include "principal scholarly activity"; reference period the academic year; openended specify field eliminated |
| 54 | Engaged in funded research | Revised | 55 | Stem wording revised to include "scholarly activities at target school" and exclude funding from basic salary; reference period the academic year |
| 55 | Principal/co-principal investigator on funded research | Deleted |  |  |
| 56 | Number supported by grants | Deleted |  |  |
| 57 | Sources of funding | Deleted |  |  |
| 58 | Total number of grants | Deleted |  |  |
| 59a | Total funds | Deleted |  |  |
| 59b | How received funds were used | Deleted |  |  |
| 60 | Evaluation of facilities and resources | Deleted |  |  |
| 61 | Use of institutional funds | Deleted |  |  |
| 62 | Number and type of administrative committees | Deleted |  |  |
| 63 | Hours spent on administrative committee work | Revised | 49 | Reformatted for web, stem wording revised to include examples |
| 64 | Union membership | Revised | 14/15 | Item reformatted for web; gate question added |
| 65 | Satisfaction with instructional duties | Revised | 61 | Number of response options reduced; new options added |
| 66 | Job satisfaction | Revised | 62 | Number of response options reduced |
| 67 | Likelihood of leaving job | Deleted |  |  |

See notes at end of table.

Table 8. Content and formatting changes to the NSOPF:99 faculty questionnaire in preparation for the NSOPF:04 instrument: 2004-Continued

| NSOPF:99 |  |  | NSOPF:04 |  |
| :---: | :---: | :---: | :---: | :---: |
| Item | Content | Action | Item | Changes |
| 68 | Age to stop working at postsecondary institution | Deleted |  |  |
| 69 | Factors influencing possible decision to leave | Deleted |  |  |
| 70 | Most important factor regarding decision | Deleted |  |  |
| 71 | Option to draw on retirement | Deleted |  |  |
| 72 | Retired previously | Unchanged | 64 |  |
| 73 | Early retirement option | Deleted |  |  |
| 74 | Age planning to retire | Unchanged | 65 |  |
| 75a/76 | Basic salary for academic year/ Compensation for calendar year | Revised | 66/66B | Reformatted for web with follow-up screen for nonrespondents; stem wording revised to stress confidentiality; item wording revised to simplify response categories and provide examples |
| 75b | Basis of basic salary | Revised | 67/68/69 | Reformatted for web into separate items; item wording revised to collect contract length and other pay arrangements; open-ended specify field eliminated |
| 77 | Income of spouse/significant other | Deleted |  |  |
| 78 | Number of persons in household | Deleted |  |  |
| 79 | Household income | Revised | 70A/70B | Reformatted for web with follow-up screen for nonrespondents; stem wording revised to include respondent's salary reported earlier and onscreen definition of household income; follow-up screen for item nonrespondents added |
| 80 | Number of dependents | Revised | 79 | Item changed to number of dependent children |
| 81 | Gender | Unchanged | 71 |  |
| 82 | Month and year of birth | Revised | 72 | Birth month eliminated |
| 83 | Ethnicity | Revised | 73 | Reformatted for web instrument |
| 84 | Race | Revised | 74 | Response options reordered to match current federal standards for collecting racial information |
| 85 | Disability | Revised | 75 | Stem wording revised to include additional onscreen definitions |
| 86 | Type of disability | Deleted |  |  |
| 87 | Marital status | Revised | 77 | Wording and order of response options modified |
| 88 | Employment of spouse/significant other | Deleted |  |  |
| 89 | Country of birth | Revised | 80 | Revised to ask if born in U.S. |
| 90 | Citizenship status | Revised | 81 | Visa status and distinction between native/naturalized citizenship eliminated |
| 91 | Parent and spouse education level | Deleted |  |  |
| 92 | Opinions about target institution | Revised | 82/83 | Number of response options reduced; new options added |
| - | Open-ended comments | Deleted |  |  |

NOTE: Numbers in table correspond with the question number in the instruments. Question numbers $7,20,22,25,29,30,33,34$, $40,42,43,44,45,57,58,59,60,63,76$, and 78 in the NSOPF:04 faculty questionnaire were eliminated before data collection, and the instrument was not renumbered.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 2.3 Institution Data Collection

The goals of the institution data collection for the NSOPF:04 study were to collect a list of full- and part-time faculty and instructional staff (referred to as a "faculty list") from each sampled institution and to obtain a completed questionnaire from each sampled institution. As described in section 2.1.4, the faculty list was used for selecting the faculty sample and also
provided the contact information used for faculty data collection activities. The institution questionnaire, detailed in section 2.2.3, collected information on the policies and practices affecting full- and part-time faculty and instructional staff. To facilitate the process of obtaining faculty lists and completing the institution questionnaire, an institution website was developed, and for each sampled institution, the Chief Administrator (CA) was asked to appoint an Institution Coordinator (IC).

### 2.3.1 Institution Website

The NSoFaS:04 website served a number of functions for both the NSOPF:04 and NPSAS:04 studies. For institutions, it was a central repository for all study documents and instructions. It allowed for the uploading of electronic lists of faculty and instructional staff. In addition, it housed the institution questionnaire for the Institution Coordinator to complete online. Figure 1 presents the home page of the NSoFaS:04 website.

Figure 1. The 2004 National Study of Faculty and Students institution website home page


SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Faculty and Students (NSoFaS:04) website.

Visitors to the website were provided with the following links (see navigation bar on the left side of the screen):

- Early Contacting provided information about the early institution contacting process for NSoFaS:04 for the initial stage. Section 2.3 .2 provides details of early institution contacting.
- About NSOPF (faculty) provided information on the study's mandate and research objectives, with a link to National Center for Education Statistics (NCES) reports from previous study cycles.
- About NPSAS (student) provided comparable information (as noted above) for the student component of NSoFaS:04.
- Instructions provided links that allowed institution staff to view and print copies of various NSOPF:04 and NPSAS:04 forms (in pdf format).
- Endorsements listed the 25 national organizations that endorsed both studies. (The 24 NSOPF:04 endorsements are listed in appendix E; one endorsement was applicable only to proprietary schools that were eligible for NPSAS:04 but ineligible for NSOPF:04).
- Frequently Asked Questions (FAQs) included questions and answers concerning all stages of data collection for both components of NSoFaS:04.
- Help provided the help desk toll-free number and e-mail address for contacting project staff, along with instructions for logging in.
- Contact Us contained address information for RTI International.
- Other NCES Sites links to three NCES websites that provided more information about NCES programs and how to order publications.

All data entry applications were protected by Secure Sockets Layer (SSL) encryption. Further security was provided by an automatic "time out" feature, through which a user was automatically logged out of the NSOPF:04 institution questionnaire if the system was idle for 30 minutes or longer. The system did not use any persistent "cookies,," ${ }^{17}$ thus adhering to the Department of Education's privacy policy.

A status screen, shown in figure 2, indicated which stages of institution data collection were completed (denoted by a check mark) and allowed institutions to select those stages that were not yet completed. Once a stage was completed, it was no longer accessible via the Web.

[^10]Figure 2. The 2004 National Study of Faculty and Students institution website status screen


SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Faculty and Students (NSoFaS:04) website.

### 2.3.2 Institution Contacting

The eligible institution sample for the NSoFaS:04 consisted of 1,630 institutions, of which 1,070 were sampled for NSOPF:04 as well as NPSAS: 04 . These 1,070 institutions were recruited to participate in both components of NSoFaS:04 (NSOPF:04 and NPSAS:04). The fielding of NSOPF:04 and NPSAS:04 together as the National Study of Faculty and Students was one of three changes made in the institution contacting procedures for this cycle of NSOPF.

The second change was to administer the institution questionnaire as a web or CATI instrument, with no hardcopy equivalent.

The third change was to begin recruiting institutions and initiating coordinator contacts in March 2003-a full 8 months prior to the November reference date for the fall term, and roughly 5 to 6 months earlier than the September start dates of previous cycles. This change was prompted by the need to draw a faculty sample and subsequently contact sampled faculty for participation prior to the 2004 summer break. It was hoped that the additional lead time would allow schools to better plan for the staffing and resources required for participation within the study's schedule constraints, allow institutions additional time to initiate and complete any internal review procedures they felt necessary, and also allow the contractor time to work with institutions to resolve any potential roadblocks to their participation. This advance notification was intended both to speed up receipt of faculty lists, and to positively impact the institution response rate. By sampling and contacting faculty earlier in the academic year, it was hoped that a higher faculty response rate could be achieved.

Prior to the field test, endorsements from organizations that had previously endorsed NSOPF and/or NPSAS were renewed and extended, as appropriate, to both NSoFaS:04 component studies. An effort was also made to solicit new endorsements from other organizations as well. In all, 25 organizations endorsed both components of NSoFaS:04; 24 of these were relevant to NSOPF:04. ${ }^{18}$ These endorsements were featured on all project letterhead and pamphlets and on the NSoFaS website. In addition, several of these organizations continued to promote the study throughout the data collection period in newsletters and other communications with their member institutions. See appendix E for a list of the 24 organizations that endorsed NSOPF:04.

For NSOPF:04, data collection proceeded in four stages:

- verification;
- institution recruitment;
- advance notification of the coordinator; and
- faculty list and institution questionnaire data collection procedures.

Procedures for each stage of data collection are outlined below.

## Verification

Verification began on January 23, 2003, and was completed prior to the start of institution recruitment on March 10, 2003. Institution contactors were trained to contact the institution at their main number, verify address information and confirm the name and contact information for the CA at the institution. They also confirmed that the school was Title IV eligible and open to the general public during the fall 2003 term.

Institutions flagged as potentially ineligible-including closed institutions and institutions that indicated they were not Title IV eligible or open to the general public-were forwarded to project staff for review. Project staff also reviewed instances of sampled institutions merging with other institutions (sampled or unsampled), possible changes in mission that could affect the institution's sampling strata, and changes in name or address, to confirm the institution was eligible and correctly identified.

## Institution recruitment and advance notification of the coordinator

Institution recruitment began on March 10, 2003. The Chief Administrator (CA) at each institution sampled for NSoFaS:04 was sent the following materials (see appendix F for copies of these letters and pamphlets):

- a cover letter, printed on NCES letterhead, providing background information on NSOPF:04 and NPSAS:04;
- an NSoFaS:04 pamphlet summarizing the objectives of both NPSAS:04 and NSOPF:04, and providing background information and selected findings for each component;

[^11]- an NSOPF:04 pamphlet, included to show what had been prepared for mailing to the sampled faculty;
- a NPSAS:04 pamphlet, included to show what had been prepared for mailing to sampled students; and
- a project timeline outlining the flow of activities for both component studies of NSoFaS:04, and the projected schedule for each.

A team of institution contactors followed up with the CA by telephone. The CA was asked to name an Institution Coordinator (IC) by completing the Designation of Coordinator form online, or providing the information over the telephone. Once the IC was identified, they were mailed an identical packet, with a cover letter informing them that they would be mailed complete instructions for their participation in each component in September.

During this advance notification stage of data collection, ICs were asked to complete an online Coordinator Response Form (CRF) which could also be administered by CATI (see appendix F). This instrument confirmed that the institution could supply the items requested for the faculty and student lists within the stated schedule constraints. It also contained items designed to expedite collection of student record information for the student component.

ICs who indicated that a formal review process (such as an Institutional Review Board [IRB] review) was necessary before their institution would agree to participate were forwarded additional project materials as appropriate. A complete IRB approval packet was prepared for this purpose and mailed to the IC upon request. This packet included copies of instruments, as well as complete descriptions of relevant survey procedures (e.g., confidentiality and informed consent).

## Faculty list collection procedures

Complete instructions for participation in both NSOPF:04 and NPSAS:04 were sent to all designated ICs on September 29, 2003. Binders continued to be mailed to ICs on a flow basis as they were designated. The mailing, which was packaged in a three-ring binder, included the following materials:

- a cover letter describing the study, the institution's password, IPEDS unit ID, ${ }^{19}$ and URL (web address) necessary to access the NSoFaS:04 website (a separate letter was created for NPSAS:04-only sampled institutions);
- a copy of the letter that went to the CA, and a facsimile of the Designation of Coordinator form;
- a complete list of endorsements;
- a project timeline outlining the flow of activities for both component studies of NSoFaS:04, and the projected schedule for each;
- instructions for preparing the list of faculty and instructional staff, including a list of data elements requested, and a suggested file layout;

[^12]- complete instructions for participation in each phase of NSoFaS:04; and
- a list of transmittal options for sending faculty lists, by mail, e-mail, and direct upload to the NSoFaS:04 website, together with an express courier packet and label for mailing the lists if required.

The instructions directed the ICs to provide a list of full- and part-time faculty and instructional staff, including all personnel who had faculty status or any instructional responsibilities during the fall 2003 term. Institutions were encouraged to submit an electronic list by uploading it to the secure website. The data items requested for each listed faculty or instructional staff member were

- full name;
- academic discipline;
- department/program affiliation;
- full-time/part-time status;
- gender;
- race/ethnicity;
- employee ID number (to eliminate duplicates from sample); and
- contact information (institution and home mailing address, institution and home e-mail address [if available], and home and campus telephone numbers).
Follow-up with ICs was conducted by telephone, mail, and e-mail. Telephone prompts to the ICs were made for institutions that had not provided lists. To minimize the number of contacts made to an IC, prompting for NSOPF:04 was combined with prompting for NPSAS:04. E-mail prompts to ICs, keyed to pending project deadlines, were regularly utilized. E-mail prompts focused on timely completion of requested materials and encouraged review of the instructions for participation. As faculty lists were received, they were reviewed for completeness, readability, and accuracy. Additional follow-up to clarify the information provided or retrieve missing information was conducted by the institution contactors as necessary.

Counts of full- and part-time faculty were collected in both the institution questionnaire and in the faculty lists. For each institution, the counts of full- and part-time faculty were checked against those provided in the institution questionnaire and against 2001 IPEDS Fall Staff Survey data. IPEDS data were used for discrepancy checks whenever institution questionnaire data were unavailable but also served as an additional check to catch inaccuracies in matching questionnaire/list data that otherwise would not have been discovered. For further details regarding quality control checks, see section 4.1.2.

Reimbursement for the time and staff involved in providing the faculty list was offered to institutions indicating a difficulty in complying with the request within schedule constraints. A refusal conversion letter was mailed to institutions that had not responded by November 21, 2003. The letter underscored the offer of reimbursement. Beginning in May 2004 a flat $\$ 500$ reimbursement was offered to institutions for providing the outstanding faculty and student lists
by the end of June. This offer was extended both to explicit refusals and schools which indicated cooperation but had yet to comply.

For institutions lacking the resources to provide a complete list of full- and part-time faculty despite the offer of reimbursement, list information was, if possible, abstracted from course catalogs, faculty directories, and other publicly available sources. Those institutions for which usable lists were identified were notified of this sampling procedure; institutions which indicated that they did not want their faculty included in the sample were excluded. Faculty lists abstracted in this fashion were reviewed for completeness against IPEDS before being approved for sampling. Faculty list collection continued through July 11.

## Institution questionnaire data collection procedures

Institution Coordinators were asked to complete the institution questionnaire (described in section 2.2.3) using the study's institution website. Institution questionnaire follow-up was conducted simultaneously with follow-up for lists of faculty. If an institution was unable to complete the questionnaire online, efforts were made to collect the information over the telephone. This often involved contacting multiple offices within the institution, as questions about benefits and tenure policies could most frequently be completed by human resources and/or the academic affairs office, while questions about faculty counts and turnover were typically answered by institutional research staff.

To expedite data collection, missing questionnaire data was, in some instances, abstracted directly from benefits and policy documentation supplied by the institution, or publicly available on the institution's website. In addition, several large multi-campus systems provided data for their campuses at a system level or indicated that specific policy and benefits information was the same for all related campuses.

Refusal conversion efforts for the institution questionnaire were conducted with institutions regardless of whether they supplied a list of faculty. After August, institutions which had not completed the questionnaire were offered a reimbursement of $\$ 50$ for providing the questionnaire within schedule constraints. Data collection for the institution questionnaire closed on October 22, 2004.

## Administrative systems and procedures

To efficiently track all mail and telephone follow-up (both incoming and outgoing) and processing and sampling activities, the study utilized an Institution Contacting System (ICS) specifically designed to meet the needs of the NSoFaS:04 project. The ICS was accessible to contactors, Call Center ${ }^{20}$ supervisors, and project staff. The NSoFaS:04 ICS was designed so that a change in status (e.g., a completed Designation of Coordinator form) automatically generated the next step (e.g., a mailout to the IC and an automatic appointment for telephone follow-up). Electronic call notes documented the outcome of every conversation. The system allowed interviewers to set appointments for future follow-up. Through the ICS, the interviewer had the ability to designate an IC, provide contact information, and access the institution questionnaire and other data collection instruments. The ICS gave interviewers the ability to generate an automatic e-mail to ICs containing the password and IPEDS unit ID required for access. The

[^13]problem report form feature of the ICS allowed institution contactors to immediately forward specific call notes to an e-mail box monitored by project staff. This ensured that refusals, requests for remails, and calls requiring follow-up by project staff were handled promptly.

Quality Circle meetings, attended by interviewers, supervisors, team leaders, and project staff, were held on a weekly basis to share ideas for gaining institutional cooperation and suggestions for improving procedures. Project staff solicited feedback from call center personnel on the ICS, scripts, and handling problems reported by respondents (e.g., difficulties accessing the website).

### 2.4 Faculty Data Collection

The NSOPF:04 utilized a mixed-mode data collection methodology that allowed sample members to participate either by web-based self-administered questionnaire or via an interviewer-administered telephone interview. At the start of faculty data collection, introductory materials were sent to sample members via first class mail as well as electronic mail (if an e-mail address was available). The initial letter included instructions for completing the selfadministered questionnaire on the Internet or by calling a toll-free number to complete a telephone interview. After an initial 4-week period, telephone interviewers began calling sample members. The self-administered web instrument remained available to respondents throughout data collection. An early-response incentive, designed to encourage sample members to complete the self-administered questionnaire prior to outgoing CATI calls, was offered to sample members who completed the questionnaire within 4 weeks of the initial mailing. Incentives were also offered to selected sample members as necessary (i.e., those who refused and other nonrespondents).

### 2.4.1 Faculty Website

The website for the NSOPF:04 served a dual purpose. The primary function was to provide access to the web questionnaire for the sampled faculty and instructional staff. The secondary function was to provide information about the study, the selected sample, the sponsor, the contractor, and confidentiality. In addition to the information available on the site, links were provided to other relevant sites (e.g., NCES). The home page of the NSOPF:04 faculty website is depicted in figure 3.

The initial login page provided access to the self-administered questionnaire. The login process involved entering a specific study ID and password, which were provided to the respondent in every letter and e-mail message. Respondents could also obtain their study ID and password by sending an e-mail to the project, or by contacting a help desk agent at the NSOPF:04 toll-free number.

As with the institution application, the web instrument was protected by SSL encryption, an automatic time out feature, and omission of any persistent cookies.

Figure 3. The NSOPF:04 faculty website home page


SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 2.4.2 Locating and Interviewing Procedures

The NSOPF:04 faculty data collection design involved locating sample members, providing an opportunity for the faculty or instructional staff to complete the self-administered questionnaire, and following up with web nonrespondents after 4 weeks to conduct a computerassisted telephone interview. The data collection period lasted approximately 9 months (January 15 through October 6, 2004). Data collection activities for faculty are shown in figure 4.

Figure 4. NSOPF:04 faculty data collection overview

${ }^{1}$ If a home address was available for the sample member, the lead letter package was mailed to the home. If there was no home address, the package was mailed to the school address. If there was no specific school address available, the package was mailed to the main address on file for the school. Sending packages to the home address resulted in a higher response rate compared to sending packages to the school address ( 78 percent versus 67 percent; $\chi 2=565.6, p<.0001$ ).
${ }_{2}^{2}$ The web interview option was available throughout data collection, even after telephone follow-up began.
${ }^{3}$ The sample member's office and home telephone numbers were called by computer-assisted telephone interview (CATI) interviewers. If no specific telephone number was available for the sample member, the school's main telephone number was used. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

## Mailouts

Faculty and instructional staff were sent a lead letter, instructions for accessing the web instrument via the Internet or with the assistance of a telephone interviewer, and a study pamphlet. (Examples of these materials are included in appendix F.) The lead letter introduced the study and listed the organizations that endorsed the study. If an e-mail address was available for a sample member, the introduction to the study was also sent via e-mail.

Periodically throughout the data collection period, reminder letters and e-mail messages were sent to nonrespondents to encourage their participation and to notify them of the incentive, if applicable. Examples of these follow-up contacts are included in appendix F.

## Locating

Identifying a valid mailing address and telephone number for all selected faculty and instructional staff sampled from known institutions was critical to the success of the NSOPF:04. Locating activities were conducted in two stages: advance tracing, which took place before data collection began, and intensive tracing conducted during data collection.

Advance tracing. Upon receipt of faculty lists from participating institutions, contact information for the sampled faculty and instructional staff was reviewed and assessed for completeness. Schools for which fewer than 75 percent of the sampled cases had e-mail addresses $(\mathrm{n}=430)$ were selected for tracing before being sent a lead letter. Prior to CATI operations, home contact information was sent to Telematch to obtain the latest telephone numbers.

Initial tracing efforts included searches on the school's website for contact information. When this was not an option, more extensive database searches were employed during intensive tracing. In some cases, the searches confirmed or updated the contact information provided by the institution; in other cases, the searches resulted in new contact information. All locating information obtained as a result of these searches was loaded into the NSOPF:04 database.

Intensive tracing. Intensive tracing was performed on a case if advance tracing did not yield a telephone number for loading in CATI, or if the case was designated as a dead end in CATI (i.e., there were no more telephone numbers to call for the case). The following steps were performed by the tracing unit to locate sample members.

- Check the preloaded information using an online directory assistance search. This step was intended to identify the easy-to-locate cases (e.g., cases with the correct telephone number but the wrong area code).
- Conduct credit bureau database searches. The tracing staff had access to various proprietary databases (TransUnion, Equifax, and Experian) containing current address and phone listings for the majority of consumers with a credit history.
- Conduct additional intensive tracing. This step included (but was not limited to) searches using Lexis-Nexis and FastData, directory assistance calls, and searches of institution websites for campus directories.
Tracing staff checked all new leads procured during their tracing efforts to confirm the addresses and telephone numbers that were obtained. When a telephone number for a sample member was confirmed, telephone interviewing resumed for that case. Cases with new address
information were mailed a lead-letter packet. If the tracing staff located a new e-mail address for a sample member, the information was loaded into the database for future e-mail reminders and other mailings to nonrespondents.


## Staff training

The mixed-mode design of the NSOPF:04 data collection required the development of three separate training programs for data collectors: help desk training, CATI interviewer training, and tracing. In addition, separate training sessions were conducted for supervisors and monitors.

Detailed NSOPF:04 interviewer manuals were distributed at the outset of each training session. These manuals served as both an instruction guide for the training lectures, discussions, and practical exercises and as a reference guide for use after completion of training.
Supplemental chapters that covered additional duties were provided for supervisors, monitors, and help desk agents. The manual's table of contents and an agenda for telephone interviewer training are included in appendix G.

All training sessions included a study overview, a review of the confidentiality requirements, a demonstration interview, an in-depth review of the instrument, hands-on practice exercises with the instrument, and open-ended coding modules. In addition, the help desk and telephone interviewer training sessions included the following additional topics:

- Help desk agents reviewed the "frequently asked questions" in detail, with a focus on responses to technical issues as well as instrument-specific questions, and instructions for documenting each call to the study hotline.
- Telephone interviewers were trained in techniques for gaining cooperation of sample members, and of other contacts, as well as techniques for addressing the concerns of reluctant participants and for avoiding refusals.


## Self-administered questionnaires

The first phase of data collection, lasting 4 weeks after the lead letters were mailed, provided an opportunity for respondents to complete the self-administered questionnaire via the Internet before the telephone follow-up calls began. The web interview site remained available 24 hours a day, 7 days a week, thereby giving sample members the option to complete the questionnaire online during the entire 9 months of data collection.

## Help desk operations

The NSOPF:04 help desk opened on January 15, 2004, in anticipation of the first respondent calls after the lead-letter mailing. The help desk staff were available to assist sample members who had questions or problems accessing and completing the self-administered questionnaire. A toll-free hotline was set up to accept incoming help desk calls. If technical difficulties prevented a sample member from completing the self-administered questionnaire, a help desk staff member, also trained to conduct telephone interviews, would encourage the caller to complete a telephone interview rather than to attempt the self-administered questionnaire.

All incoming calls from sample members were documented using the help desk software. In addition to this primary documentation function, the software provided information needed to
verify a sample member's identity, login information (study ID and password) for the web questionnaire, and a means for tracking calls that could not be resolved immediately.

The help desk software also provided project staff with reports on the types and frequency of problems experienced by sample members, as well as a way to monitor the resolution status of all help desk inquiries.

## Telephone interviewing

Telephone prompts to nonrespondents began on February 12, 2004, at the end of the early-response incentive period. CATI procedures included attempts to locate, gain cooperation from, and interview study sample members who had not completed the questionnaire online. Interviewers encouraged respondents to complete the interview by telephone as soon as they made contact. However, if the sample member expressed a preference for completing the selfadministered questionnaire via the Internet, a callback was scheduled for 1 week later. During these callbacks, interviewers again prompted the faculty members to complete the questionnaire by telephone.

Refusal conversion procedures were used to gain cooperation from individuals who refused to complete the questionnaire. When a refusal was first encountered, either because the sample member refused or because a "gatekeeper" (secretary or spouse) refused on behalf of the sample member, the case was referred to a refusal conversion specialist. Refusal conversion specialists were selected from among those interviewers most skilled at obtaining cooperation and were given training in refusal conversion techniques tailored to NSOPF:04. The refusal training emphasized ways to gain cooperation, overcome objections, address the concerns of gatekeepers, and encourage participation.

### 2.5 Data Collection Systems

### 2.5.1 Instrument Development and Documentation System

The Instrument Development and Documentation System (IDADS) is a controlled web environment in which project staff developed, reviewed, modified, and communicated changes to specifications, code, and documentation for the NSOPF:04 instrument. All information relating to the NSOPF:04 instrument was stored in a Structured Query Language (SQL) Server database and was made accessible through Windows and web interfaces. There are three modules within IDADS: specification, programming, and documentation.

Initial specifications were generated within the IDADS specification module. This module enabled access for searching, reviewing, commenting on, updating, exporting, and importing information associated with instrument development. All records were maintained individually for each item, which provided a historical account of all changes requested by both project staff and NCES.

Once specifications were finalized, the programming module within IDADS produced hypertext transfer markup language (html), Active Server Pages (ASP), and JavaScript template program code for each screen based on the contents of the SQL Server database. This output included screen wording, response options, and code to write the responses to a database, as well as code to automatically handle such web instrument functions as backing up and moving forward, and recording timer data. For questions that had changed significantly since the field
test, the programming staff edited the automatically generated code to customize screen appearance and program response-based routing. For questions with minor changes, the programming staff simply modified the program code used in the field test.

The documentation module contained the finalized version of all instrument items, their screen wording, and variable and value labels. Also included were the more technical descriptions of items such as variable types (alpha or numeric), information regarding to whom the item was administered, and frequency distributions for response categories. The documentation module was used to generate the instrument facsimiles and the Electronic Codebook (ECB) input files.

### 2.5.2 Integrated Management System

All aspects of the study were under the control of an Integrated Management System (IMS). The IMS was a comprehensive set of desktop tools designed to give project staff and NCES access to a centralized, easily accessible repository for project data and documents. The NSOPF:04 IMS consisted of three components: the management module, the Receipt Control System (RCS), and the Case Management System (CMS).

The management module of the IMS contained tools and strategies to assist project staff and the NCES project officer in managing the study. All information pertinent to the study was located there, accessible via the Internet, in a secure desktop environment. Available on the IMS website were the project schedule, monthly progress reports, daily data collection reports and status reports (available through the RCS described below), project plans and specifications, project information and deliverables, instrument specifications, staff contacts, the project bibliography, a document archive, and frequencies for the faculty and institution data. The IMS management module also had a download area from which the client and subcontractors retrieved large files when necessary.

The Receipt Control System (RCS) was an integrated set of systems that monitored all activities related to data collection, including tracing and locating. Through the RCS, project staff were able to perform stage-specific activities, track case statuses, identify problems early, and implement solutions effectively. RCS locator data were used for a number of daily tasks related to sample maintenance. Specifically, the mailout program produced mailings to sample members, the query system enabled administrators to review the locator information and status for a particular case, and the mail return system enabled project staff to update the locator database. The RCS also interacted with the Case Management System and tracing unit databases, sending locator data among the three systems as necessary.

The Case Management System (CMS) was the technological infrastructure that connected the various components of the CATI system, including the questionnaire, utility screens, databases, call scheduler, report modules, links to outside systems, and other system components. The call scheduler assigned cases to interviewers in a predefined priority order. In addition to delivering appointments to interviewers at the appropriate time, the call scheduler also calculated the priority scores (the order in which cases need to be called based on preprogrammed rules), sorted cases in non-appointment queues, and computed time zone adjustments to ensure that the sampled respondents were not phoned outside the specified calling
hours. ${ }^{21}$ The call scheduler also allowed callbacks to be set and assigned status codes to the case. Using an algorithm based on the previous call results, the call scheduler determined which telephone number (e.g., home or work) associated with the case should be called next.

[^14]
## Chapter 3

## Data Collection Outcomes

The success of the 2004 National Study of Postsecondary Faculty (NSOPF:04) was dependent upon achieving high levels of cooperation at all stages of the data collection process. The data collection results-namely the institution and faculty response rates, along with the results of the efforts that contributed to those rates-are the focus of this chapter.

### 3.1 Institution Data Collection Results

### 3.1.1 Institution Participation

Of the 1,080 institutions selected to participate in NSOPF:04, 1,070 were eligible institutions. ${ }^{22}$ Of the eligible institutions, 97 percent (unweighted) appointed an Institution Coordinator (IC) to assist with study requirements and 85 percent completed the Coordinator Response Form (CRF), indicating their initial intent to participate in both components of the study and adhere to project timelines. Ultimately, 91 (unweighted) percent of the eligible institutions provided a list of faculty and 86 percent completed institution questionnaires.

Fifty-seven institutions indicated having policies that required the 2004 National Study of Faculty and Students (NSoFaS:04) survey request be submitted to their Institutional Review Board (IRB) for formal approval. One advantage of the advance notification period is that it allowed the contractor sufficient time to prepare customized IRB approval packages for submission to each of these institutions. This procedure expedited the approval process and alleviated the burden on the IC. Of the 60 institutions that were sent IRB approval packages, all but three approved participation in NSOPF:04.

## Faculty lists

Two key changes in data collection procedures had the potential to impact faculty list participation rates for NSOPF:04; namely the advance notification initiative begun in March 2003, and the decision to combine the data collection efforts for NSOPF: 04 with the 2004 National Postsecondary Student Aid Study (NPSAS:04) under the NSoFaS:04. Table 9 compares the participation rate achieved in NSOPF:04 with previous cycles.

[^15]Table 9. Number and percentage of institutions providing faculty lists, by cycle of National Study of Postsecondary Faculty (NSOPF): 1988 to 2004

| NSOPF cycle | Number of eligible <br> institutions | Number of institutions <br> providing list | Unweighted percent <br> participation rate ${ }^{1}$ |
| :--- | ---: | ---: | ---: |
| NSOPF:88 field test | 110 | 100 | 91.4 |
| NSOPF:88 full-scale study | 480 | 450 | 93.5 |
| NSOPF:93 field test | 140 | 120 | 89.0 |
| NSOPF:93 full-scale study | 960 | 820 | 84.9 |
| NSOPF:99 field test | 160 | 150 | 90.1 |
| NSOPF:99 full-scale study | 960 | 820 | 85.4 |
| NSOPF:04 field test | 150 | 130 | 89.9 |
| NSOPF:04 full-scale study | 1,070 | 980 | 91.3 |

${ }^{1}$ Percentages are based on the number of eligible institutions within the row under consideration, and are based on original unrounded numbers.
NOTE: Numbers of eligible institutions and numbers of institutions providing lists are rounded to the nearest 10. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

A total of 980 ( 91 percent, unweighted and weighted) of eligible institutions provided a faculty list, with all institutional strata exceeding a weighted participation rate of 85 percent. The breakdown of institutions providing faculty lists, by institution type, is presented in table 10.

Table 10. Number and percentage of institutions providing faculty lists, by type of institution: 2004

|  | Number of institutions |  |  | Percent participation rate $^{1}$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Institution type | Eligible | Participating |  | Unweighted | Weighted $^{c}$ |
| Total | 1,070 | 980 |  |  |  |
|  |  |  |  |  |  |
| Public doctoral | 190 | 180 |  | 92.7 | 93.2 |
| Public master's | 120 | 100 | 89.7 | 89.1 |  |
| Public bachelor's | 30 | 30 | 92.9 | 88.4 |  |
| Public associate's | 330 | 290 | 89.1 | 87.4 |  |
| Public other | 10 | 10 | 100.0 | 100.0 |  |
| Private not-for-profit doctoral | 110 | 100 | 92.0 | 95.6 |  |
| Private not-for-profit master's | 80 | 80 | 92.6 | 86.8 |  |
| Private not-for-profit bachelor's | 130 | 120 | 94.6 | 93.1 |  |
| Private not-for-profit associate's | 10 | 10 | 75.0 | 96.0 |  |
| Private not-for-profit other | 60 | 60 | 93.3 | 91.8 |  |

${ }^{1}$ Percentages are based on the number of eligible institutions within the row under consideration, and are based on original unrounded numbers.
NOTE: Number of eligible and participating institutions are rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

## Institution questionnaire

A total of 920 institutions, representing 84 percent of eligible institutions, completed the institution questionnaire. Table 11 provides a breakdown of institution participation by strata.

Table 11. Number and percentage of institutions providing institution questionnaires, by type of institution: 2004

|  | Number of institutions |  | Participation rate percent $^{1}$ |  |
| :--- | ---: | ---: | ---: | ---: |
| Institution type | Eligible | Participating | Unweighted | Weighted |
| Total | 1,070 | 920 | 86.1 | 84.2 |
|  |  |  |  |  |
| Public doctoral | 190 | 170 | 86.5 | 84.7 |
| Public master's | 120 | 110 | 90.5 | 89.6 |
| Public bachelor's | 30 | 30 | 100.0 | 100.0 |
| Public associate's | 330 | 290 | 89.1 | 83.6 |
| Public other | 10 | 10 | 87.5 | 98.9 |
| Private not-for-profit doctoral | 110 | 90 | 80.4 | 83.7 |
| Private not-for-profit master's | 80 | 70 | 81.5 | 79.8 |
| Private not-for-profit bachelor's | 130 | 110 | 83.8 | 77.7 |
| Private not-for-profit associate's | 10 | 10 | 75.0 | 86.0 |
| Private not-for-profit other | 60 | 50 | 76.7 | 76.2 |

${ }^{1}$ Percentages are based on the number of eligible institutions within the row under consideration, and are based on original unrounded numbers.
NOTE: Number of eligible and participating institutions are rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table 12 shows the breakdown of completed institution questionnaires by mode of administration. Those completed in computer assisted telephone interview (CATI) mode include instances where the questionnaire was finalized with interviewer assistance (e.g., questionnaires wholly or partially data-entered by project staff from information supplied on hardcopy by the institution) and questionnaires completed, wholly or partly, by CATI. Web completions are defined as those questionnaires transmitted as complete by the institution, although some institutions may have provided some responses in CATI. Nearly 81 percent of institutions completed the institution questionnaire using the Web, and 19 percent completed it with the help of an interviewer. By comparison, in 1999, the only previous cycle in which a web questionnaire was used, 69 percent of the questionnaires were done on paper, and 31 percent were done on the Web. The percentage of interviews completed at least in part by CATI is fairly consistent with the number of questionnaires completed with interviewer assistance in previous cycles.

Table 12. Number and percentage of institutions providing institution questionnaires, by mode of administration: 2004

| Mode | Number of participating institutions | Unweighted response rate $^{1}$ |
| :--- | :---: | ---: |
| Total | 920 | 100.0 |
| Web |  |  |
| CATI | 180 | 80.5 |
| Percentages are based on the total number of participating institutions, and are based on original unrounded |  |  |
| numbers. |  |  |
| NOTE: Number of participating institutions are rounded to the nearest |  |  |
| rounding. CATI = computer assisted telephone interview. |  |  |
| SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of |  |  |
| Postsecondary Faculty (NSOPF:04). |  |  |

### 3.1.2 Institution Survey Completion Timing

The timing analysis was conducted by embedding time stamps in the programming code for each form (screen) in the survey. From these time stamps, the number of seconds spent on each screen (on-screen time) and the transit time between screens (i.e., the time required to transmit data to the server, for the server to store the data and assemble the next page, and for the page to be transmitted and loaded on the computer) were calculated. A cumulative on-screen time and a cumulative transit time for the institution survey also were calculated from the time stamps. The sum of the cumulative on-screen and transit times was the total instrument time (i.e., the number of minutes it took to administer the institution questionnaire).

Unlike most questionnaires, which require the respondent to complete the survey in sequential order, the institution questionnaire included a status screen that allowed respondents to jump to particular questions they could answer, and skip over ones they could not answer. For most institutions, the questionnaire was completed in multiple internet sessions and, in some cases, by multiple people at the institution.

The target time to complete the institution questionnaire was 45 minutes. Based on the time stamps for each form, the actual time to complete the questionnaire ranged from less than 1 minute to 4 hours and 9 minutes, with an average of 35 minutes. ${ }^{23}$ Of these 35 minutes, approximately 31 minutes, on average, were spent answering questions (on-screen time) and 5 minutes, on average, were spent in transit. These numbers may be misleading because some institutions may have completed the sample hardcopy version of the questionnaire in advance, so their time to complete the web questionnaire simply reflected the time it took to key in their responses.

Table 13 reports the average and maximum times (in seconds) to complete each form in the institution instrument. Ten forms (screens) of the institution survey took more than 1 minute to complete, on average. Each of these forms required the respondent to look up information and/or requested several pieces of information, which accounts for the longer times on these screens.

[^16]Table 13. Average and maximum completion time, in seconds, for forms in the institution questionnaire: 2004

|  |  | Time in seconds |  | Number of |
| :--- | :--- | ---: | ---: | ---: |
| Form | Description | Average | Maximum | cases |
| I1 | Number full-/part-time faculty, fall 2003 | 211 | 1,319 | 920 |
| I1B | Have full-/part-time faculty, fall 2003 | 25 | 166 | 200 |
| I2 | Changes in number of full-time faculty | 252 | 1,585 | 920 |
| I2A | Reason for discrepancy, I1A and I2G | 84 | 538 | 240 |
| I3 | Full-time tenure: has tenure system | 26 | 434 | 920 |
| I4 | Full-time tenure: number considered for tenure, 2002-03 | 62 | 620 | 750 |
| I5 | Full-time tenure: number granted tenure, 2002-03 | 16 | 164 | 650 |
| I6 | Full-time tenure: maximum years on tenure track | 39 | 399 | 740 |
| I7 | Full-time tenure: institution actions, last 5 years | 55 | 436 | 740 |
| I7SP | Full-time tenure: number early retirees, last 5 years | 53 | 586 | 400 |
| I8 | Full-time tenure: discontinued tenure system, last 5 years | 15 | 125 | 190 |
| I9 | Full-time faculty: positions sought to fill, fall 2003 | 45 | 403 | 910 |
| I10A | Full-time faculty: benefits available | 111 | 1,091 | 910 |
| I10B | Full-time faculty: benefits subsidized | 58 | 443 | 900 |
| I11 | Full-time faculty: other benefits available | 80 | 427 | 910 |
| I12 | Full-time faculty: union representation | 20 | 408 | 910 |
| I13 | Full-time faculty: teaching assessment | 64 | 457 | 910 |
| I14 | Part-time benefit: retirement plan | 38 | 435 | 910 |
| I15A | Part-time faculty: benefits available | 61 | 479 | 910 |
| I15B | Part-time faculty: benefits subsidized | 35 | 319 | 530 |
| I16 | Part-time faculty: other benefits available | 52 | 327 | 910 |
| I17 | Part-time faculty: union representation | 14 | 200 | 910 |
| I18 | Part-time faculty: teaching assessment | 41 | 320 | 910 |
| I19 | Undergraduate instruction: percent assignment | 126 | 941 | 920 |
| I20 | Comments/suggestions | 143 | 785 | 920 |

NOTE: The number of cases per form varies due to the interview skip logic. Outliers for each form were top coded (mean + 3 standard deviations). Numbers of cases are rounded to the nearest 10.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 3.2 Faculty Data Collection Results

Faculty data collection efforts for NSOPF:04 consisted of three essential steps: locating (identifying telephone numbers and addresses for sample members), contacting (carrying out the necessary steps to reach the faculty member), and encouraging survey completion by web-based self-administration or CATI. This section describes the results of the NSOPF:04 data collection effort and evaluates the effectiveness of the data collection procedures used in locating, contacting, and interviewing sample members.

### 3.2.1 Response Rate

Overall contacting and survey completion results for the faculty contact phase of NSOPF:04 are presented in figure 5. Of the 35,630 cases in the original sample, 1,300 ( 4 percent) were excluded because they were ineligible for the study or deceased. Of the 34,330 eligible sample members, 29,820 ( 87 percent) were contacted and 26,110 completed the survey, for an unweighted and weighted response rate of 76 percent achieved in the 9 -month period from January 15 to October 6, 2004.

Figure 5. Contacting and survey completion outcomes: 2004


NOTE: Numbers rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table 14 shows the response rates of faculty by institution type. Response rates range from 67 percent (weighted) of faculty at public bachelor's degree-granting institutions to 91 percent (weighted) of faculty at private not-for-profit associate's degree-granting institutions.

Table 14. Number of sampled, eligible, and responding faculty and response rates, by institution type: 2004

| Institution type | Faculty |  |  | Percent response rate ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sampled | Eligible ${ }^{1}$ | Responding ${ }^{1}$ | Unweighted | Weighted |
| Total | 35,629 | 34,330 | 26,110 | 76.1 | 75.6 |
| Institution level |  |  |  |  |  |
| 2-year | 9,188 | 8,830 | 6,440 | 73.0 | 73.7 |
| 4 -year non-doctorate-granting | 8,747 | 8,430 | 6,720 | 79.7 | 78.6 |
| 4-year doctorate-granting | 17,694 | 17,070 | 12,950 | 75.8 | 75.0 |
| Institution control |  |  |  |  |  |
| Public | 23,280 | 22,450 | 17,120 | 76.2 | 76.0 |
| Private not-for-profit | 12,349 | 11,880 | 8,990 | 75.7 | 74.7 |
| Institution type |  |  |  |  |  |
| Public doctoral | 9,827 | 9,500 | 7,460 | 78.6 | 78.1 |
| Public master's | 3,485 | 3,350 | 2,620 | 78.1 | 78.5 |
| Public bachelor's | 693 | 680 | 510 | 75.4 | 67.4 |
| Public associate's | 9,129 | 8,770 | 6,420 | 73.1 | 73.7 |
| Public other | 146 | 140 | 110 | 73.6 | 73.3 |
| Private not-for-profit doctoral | 4,652 | 4,470 | 3,160 | 70.7 | 68.2 |
| Private not-for-profit master's | 3,020 | 2,890 | 2,270 | 78.6 | 78.5 |
| Private not-for-profit bachelor's | 3,218 | 3,120 | 2,520 | 80.8 | 78.7 |
| Private not-for-profit associate's | 242 | 240 | 190 | 79.8 | 91.0 |
| Private not-for-profit other | 1,217 | 1,160 | 850 | 73.1 | 70.6 |

${ }^{1}$ Numbers rounded to the nearest 10.
${ }^{2}$ Percentages are based on the number of eligible faculty within the row under consideration. Percentages are based on original unrounded numbers.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table 15 presents faculty response rates by when the lead letter package was mailed. Response rates range from 56 percent for one of the later mailings to 80 percent for the first mailing.

Table 15. Faculty response rates, by date lead letter package was mailed: 2004

| Date mailed | Number <br> eligible $^{1}$ | Percent $^{2}$ <br> response rate $^{2}$ |
| :--- | ---: | ---: |
| Total | 34,330 | 76.1 |
| January 14-February 13, 2004 | 18,690 | 80.3 |
| February 14-March 13, 2004 | 7,910 | 76.3 |
| March 14-April 13, 2004 | 1,230 | 74.6 |
| April 14-May 13, 2004 | 3,330 | 67.1 |
| May 14-June13, 2004 | 1,520 | 55.9 |
| June 14-July 13, 2004 | 1,260 | 62.7 |
| July 14-July 21, 2004 | 390 | 67.5 |

${ }^{1}$ Numbers rounded to the nearest 10.
${ }^{2}$ Percentages are based on the number of eligible faculty within the row under consideration. Percentages are based on original unrounded numbers.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 3.2.2 Locating and Survey Completion

Most of the faculty lists provided by the institutions contained contact information for sample members, including the sample member's name, office telephone number, school name, school address, and department. For some cases, home addresses also were provided. In addition, a number of approaches were used to locate faculty and instructional staff, including advance tracing, the initial mailing to all sample members, follow-up letters and e-mails to nonrespondents, telephone tracing (interviewers calling telephone numbers provided on the faculty lists as well as any additional numbers obtained during the course of making those calls), and intensive tracing (i.e., using consumer databases, internet searches, and criss-cross directories).

Before the start of data collection, schools' faculty lists were assessed for completeness of contact information. As necessary, advance tracing, described in section 2.4.2, was conducted. As shown in table 16, the contact information provided by the school proved effective in contacting faculty and instructional staff; 83 percent of sample members required no intensive tracing, while the remaining 17 percent required intensive tracing. Intensive tracing was required when a case did not have a telephone number associated with it or the CATI calls had exhausted all numbers for the case without reaching the sampled individual. Approximately 52 percent of cases sent to intensive tracing were located, compared to 90 percent of cases not sent to intensive tracing. Further, only 40 percent of cases sent to intensive tracing completed an interview compared with 80 percent of cases not sent to intensive tracing.

Table 16. Locate and interview rates, by intensive tracing efforts: 2004

|  |  | Located $^{2}$ |  |  | Completed survey |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Intensive tracing status | Total | Number | Percent $^{2}$ |  | Number $^{1}$ | Percent $^{3}$ |
| Total | 35,629 | 29,820 | 83.7 |  | 26,110 | 73.3 |
| Intensive tracing required | 5,943 | 3,080 | 51.8 |  | 2,360 | 39.7 |
| No intensive tracing required | 29,686 | 26,750 | 90.1 |  | 23,750 | 80.0 |

${ }^{1}$ Numbers rounded to the nearest 10.
${ }^{2}$ Percentages are based on the total within the row under consideration.
${ }^{3}$ Percentages are based on the number of eligible faculty within the row under consideration. Percentages are based on original unrounded numbers.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table 17 provides an overview of the primary sources used by tracers during the intensive tracing process. Tracers generally used multiple sources when tracing a case, so no one source can be pinpointed as the one that resulted in the "locate." Among the sources used most frequently for intensive tracing were internet searches, directory assistance, and various consumer database searches.

Table 17. Locate rates, by intensive tracing source: 2004

|  |  | Located |  |
| :--- | ---: | ---: | ---: |
| Tracing source | Total | Number | Percent $^{1}$ |
| Internet search | 3,726 | 1,739 | 46.7 |
| Directory assistance | 3,529 | 1,730 | 49.0 |
| Consumer database search—Lexis-Nexis | 2,911 | 1,251 | 43.0 |
| Reverse phone lookup—FastData | 2,238 | 1,105 | 49.4 |
| Name search—FastData | 3,276 | 1,531 | 46.7 |
| Address search—FastData | 2,279 | 997 | 43.7 |
| Neighbor search—FastData | 14 | 4 | 28.6 |
| Directory Assistance Plus—FastData | 526 | 216 | 41.1 |
| Consumer database search—TransUnion | 2,374 | 1,131 | 47.6 |
| Consumer database search—Experian search on Social Security number | 1,394 | 723 | 51.9 |
| Consumer database search—Experian address search | 1,690 | 762 | 45.1 |
| Other collateral source | 1,714 | 768 | 44.8 |

${ }^{1}$ Percentages are based on the total within the row under consideration.
NOTE: Most cases were traced using multiple sources; therefore, row totals and percents are not mutually exclusive. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

The breakdown of faculty and instructional staff requiring intensive tracing, by faculty status and institution type, is presented in table 18. Thirty-two percent of part-time faculty required intensive tracing, compared to 7 percent for full-time faculty ( $\chi^{2}=3806.9, p<.0001$ ). Seventeen percent of faculty at public institutions required intensive tracing compared to 16 percent at private not-for-profit institutions ( $\chi^{2}=16.5, p<.0001$ ).

Table 18. Faculty and instructional staff requiring intensive tracing procedures, by employment status and institution type: 2004

|  |  | Intensive tracing |  |
| :--- | ---: | ---: | ---: |
| Employment status and institution type | Total | Number | Percent $^{1}$ |
| Total | 35,629 | 5,943 | 16.7 |
| Employment status |  |  |  |
| Full-time | 21,891 | 1,544 | 7.1 |
| Part-time | 13,008 | 4,210 | 32.4 |
| Unknown employment status | 730 | 189 | 25.9 |
| Institution control |  |  |  |
| Public | 23,280 | 4,019 | 17.3 |
| Private not-for-profit | 12,349 | 1,924 | 15.6 |
| Institution type |  |  |  |
| Public doctoral | 9,827 | 951 | 9.7 |
| Public master's | 3,485 | 455 | 13.1 |
| Public bachelor's | 693 | 134 | 19.3 |
| Public associate's | 9,129 | 2,465 | 27.0 |
| Public other | 146 | 733 | 9.6 |
| Private not-for-profit doctoral | 4,652 | 473 | 15.8 |
| Private not-for-profit master's | 3,020 | 462 | 15.7 |
| Private not-for-profit bachelor's | 3,218 | 27 | 14.4 |
| Private not-for-profit associate's | 242 | 229 | 11.2 |
| Private not-for-profit other | 1,217 | 18.8 |  |

${ }^{1}$ Percentages are based on the number of sample members within the row under consideration. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

The results of faculty and instructional staff locating and survey completion, by faculty status and institution type, are shown in table 19 . Ninety percent of full-time faculty members were located, compared with 75 percent of part-time faculty ( $\chi^{2}=1414.6, p<.0001$ ). Eighty-one percent of full-time faculty completed the survey, compared with 69 percent of part-time faculty ( $\chi^{2}=903.8, p<.0001$ ). When examined by institution type, locate rates ranged from 80 to 88 percent. Survey completion rates ranged from 71 percent for faculty at private not-for-profit doctorate-granting institutions to 81 percent at private not-for-profit baccalaureate-granting institutions.

Table 19. Faculty locating and survey completion results, by employment status and institution type: 2004

| Employment status and institution type | Total sample | Located |  | Number eligible ${ }^{1}$ | Completed survey |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number ${ }^{1}$ | Percent ${ }^{2}$ |  | Number ${ }^{1}$ | Percent ${ }^{3}$ |
| Total | 35,629 | 29,820 | 83.7 | 34,330 | 26,110 | 76.1 |
| Employment status |  |  |  |  |  |  |
| Full-time | 21,891 | 19,580 | 89.5 | 21,390 | 17,250 | 80.6 |
| Part-time | 13,008 | 9,740 | 74.9 | 12,270 | 8,430 | 68.7 |
| Unknown employment status | 730 | 500 | 68.8 | 660 | 420 | 64.3 |
| Institution control |  |  |  |  |  |  |
| Public | 23,280 | 19,520 | 83.9 | 22,450 | 17,120 | 76.2 |
| Private not-for-profit | 12,349 | 10,300 | 83.4 | 11,880 | 8,990 | 75.7 |
| Institution type |  |  |  |  |  |  |
| Public doctoral | 9,827 | 8,600 | 87.5 | 9,500 | 7,460 | 78.6 |
| Public master's | 3,485 | 2,950 | 84.5 | 3,350 | 2,620 | 78.1 |
| Public bachelor's | 693 | 560 | 81.7 | 680 | 510 | 75.4 |
| Public associate's | 9,129 | 7,280 | 79.8 | 8,770 | 6,420 | 73.1 |
| Public other | 146 | 130 | 85.6 | 140 | 110 | 73.6 |
| Private not-for-profit doctoral | 4,652 | 3,770 | 81.1 | 4,470 | 3,160 | 70.7 |
| Private not-for-profit master's | 3,020 | 2,540 | 84.0 | 2,890 | 2,270 | 78.6 |
| Private not-for-profit bachelor's | 3,218 | 2,800 | 87.0 | 3,120 | 2,520 | 80.8 |
| Private not-for-profit associate's | 242 | 200 | 84.3 | 240 | 190 | 79.8 |
| Private not-for-profit other | 1,217 | 990 | 80.9 | 1,160 | 850 | 73.1 |

${ }^{1}$ Numbers rounded to the nearest 10.
${ }^{2}$ Percentages are based on the number of sample members within the row under consideration. Percentages are based on original unrounded numbers.
${ }^{3}$ Percentages are based on the number of eligible sample members within the row under consideration. Percentages are based on original unrounded numbers.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

The results of faculty and instructional staff survey completion by mode of data collection are presented in table 20. A total of 19,780 respondents ( 76 percent) completed the self-administered questionnaire and 6,330 respondents ( 24 percent) completed the CATI interview. (It should be noted that 59.2 percent completed the survey during the early phase, without telephone followup). While NSOPF:04 exceeded the goal of having 50 percent of completes by web, a substantial portion of these web surveys were completed only after having been called by a CATI interviewer.

Table 20. Response rates and mode of completion, by employment status and institution type: 2004

| Employment status and institution type | Number eligible ${ }^{1}$ | Total complete |  | Mode of completion |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Self-administered |  | CATI |  |
|  |  | Number ${ }^{1}$ | Percent ${ }^{2}$ | Number ${ }^{1}$ | Percent ${ }^{3}$ | Number ${ }^{1}$ | Percent ${ }^{3}$ |
| Total | 34,330 | 26,110 | 76.1 | 19,780 | 75.8 | 6,330 | 24.3 |
| Employment status |  |  |  |  |  |  |  |
| Full-time | 21,390 | 17,250 | 80.6 | 13,980 | 81.0 | 3,280 | 19.0 |
| Part-time | 12,270 | 8,430 | 68.7 | 5,500 | 65.2 | 2,940 | 34.8 |
| Unknown employment status | 660 | 420 | 64.3 | 300 | 71.9 | 120 | 28.1 |
| Institution control |  |  |  |  |  |  |  |
| Public | 22,450 | 17,120 | 76.2 | 12,850 | 75.1 | 4,270 | 24.9 |
| Private not-for-profit | 11,880 | 8,990 | 75.7 | 6,930 | 77.1 | 2,060 | 22.9 |
| Institution type |  |  |  |  |  |  |  |
| Public doctoral | 9,500 | 7,460 | 78.6 | 6,090 | 81.6 | 1,370 | 18.4 |
| Public master's | 3,350 | 2,620 | 78.1 | 1,980 | 75.6 | 640 | 24.4 |
| Public bachelor's | 680 | 510 | 75.4 | 360 | 69.6 | 160 | 30.4 |
| Public associate's | 8,770 | 6,420 | 73.1 | 4,350 | 67.7 | 2,070 | 32.3 |
| Public other | 140 | 110 | 73.6 | 70 | 68.9 | 30 | 31.1 |
| Private not-for-profit doctoral | 4,470 | 3,160 | 70.7 | 2,520 | 79.9 | 640 | 20.2 |
| Private not-for-profit master's | 2,890 | 2,270 | 78.6 | 1,700 | 74.8 | 570 | 25.2 |
| Private not-for-profit bachelor's | 3,120 | 2,520 | 80.8 | 1,950 | 77.4 | 570 | 22.6 |
| Private not-for-profit associate's | 240 | 190 | 79.8 | 160 | 83.7 | 30 | 16.3 |
| Private not-for-profit other | 1,160 | 850 | 73.1 | 600 | 70.6 | 250 | 29.5 |

${ }^{1}$ Numbers rounded to the nearest 10.
${ }^{2}$ Percentages are based on the number of eligible sample members within the row under consideration. Percentages are based on original unrounded numbers.
${ }^{3}$ Percentages are based on the number of completed interviews within the row under consideration. Percentages are based on original unrounded numbers.
NOTE: All percents are unweighted. Reporting excludes 1,300 cases determined to be ineligible for study. CATI = computer assisted telephone interview. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Eighty-one percent of full-time faculty completed the self-administered survey, compared to 65 percent of part-time faculty $\left(\chi^{2}=776.6, p<.0001\right)$. Seventy-seven percent of faculty and instructional staff at private not-for-profit institutions completed the self-administered survey, compared to 75 percent of faculty at public institutions ( $\chi^{2}=13.6, p<.0002$ ). Self-administered web survey completion rates by institution type ranged from 68 percent for public associate's degree-granting schools to 84 percent for private not-for-profit associate's degree-granting schools. The cumulative response rate, overall and by mode, is shown in figure 6.

Figure 6. Cumulative response rates, by mode of completion: 2004


NOTE: Mode of completion for respondents who switched modes was determined by the mode at the time of survey completion.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 3.2.3 E-mail Contacting Efforts

E-mail addresses of faculty and instructional staff were requested in the faculty lists. Where e-mail addresses were not provided by the institution, efforts were made through an advance search of the institution's online directory for e-mail addresses of sample members as well as other database searches. In addition, some sample members provided e-mail addresses when contacted by a telephone interviewer. E-mail addresses were available for 27,980 ( 82 percent) of the 34,330 eligible sample members.

Periodically throughout the data collection period, e-mail messages were sent to nonrespondents to encourage their participation (see appendix F). Sample members who received e-mails were more likely to complete the survey ( 78 percent) compared to sample members to whom no e-mail reminders were sent ( 53 percent; $\chi^{2}=1867.2, p<.0001$ ). Respondents with e-mail addresses were more likely to complete the self-administered web questionnaire (79 percent) than were respondents who were not sent e-mail reminders ( 55 percent; $\chi^{2}=976.1$, $p<0.0001$ ).

### 3.2.4 Refusal Conversion Efforts

Refusal conversion measures were used to gain cooperation from individuals who refused to participate when contacted by telephone interviewers. Refusals came not only from sample members, but also occasionally from other household members or other contacts (such as
secretaries). ${ }^{24}$ Whenever a refusal was encountered, unless it was deemed hostile, the case was referred to a specialist trained in refusal conversion techniques. Refusal conversion specialists were chosen based on their performance as interviewers, with those who were the most skilled in obtaining cooperation given additional training in converting refusals. This training was tailored to the concerns of faculty members and gatekeepers regarding participation, and focused on gaining cooperation and encouraging participation.

Ten percent of contacted cases refused to participate at some point during data collection. However, 18 percent of these cases were successfully converted and eventually completed the survey. Fifty-nine percent of the converted cases completed the web self-administered questionnaire, and 41 percent completed a telephone interview. An abbreviated instrument, consisting of sections A (nature of employment), B (academic/professional background), and G (sociodemographic characteristics) from the faculty instrument, was developed to convert nonrespondents by offering a shorter ( 10 minute) interview. The abbreviated instrument, used only in the final 3 weeks of data collection, yielded 1,610 interviews.

### 3.2.5 Incentives

For the NSOPF:04 full-scale data collection, three types of incentives were offered to eligible sample members. In accordance with findings from the NSOPF:04 field test incentive experiment ${ }^{25}$ (Heuer et al. 2004), incentives were offered during two phases of data collection: an initial early-response incentive period and a nonresponse incentive period. In addition to those periods, refusal incentives were made available following initial refusals. During each incentive phase, respondents were offered the choice of a $\$ 30$ check or a $\$ 30$ gift certificate to Amazon.com.

The initial early-response incentive was offered to all sample members for completion of the questionnaire within the first 4 weeks of data collection. The early-response incentive was designed to increase the response rate during the initial phase of data collection and promote a higher rate of web self-administered responses and reduce costs associated with telephone interviewing. Following the initial 4-week period, CATI telephone prompting began. During this second phase of the study, no incentive was offered to respondents for completing the interview. All nonrespondents from the first phase were contacted by telephone and asked to complete the survey, either on the phone or via the Web at their convenience.

Any sample member who refused to participate in the study was flagged for the refusal incentive. A refusal conversion letter was sent out to explain the study and request that the sample member reconsider the decision not to participate and to announce the reinstitution of the \$30 incentive for participating.

[^17]Nonresponse incentives were introduced after 8 weeks of CATI prompting of all nonrespondents who had not already been offered the refusal incentive. Letters and e-mail prompts were sent periodically to nonrespondents throughout the data collection period. All correspondence mentioned the incentive when it was available to sample members. Table 21 provides a breakdown of the types of incentives offered and the results of each incentive period.

Table 21. Faculty response rates, by incentive period: 2004

|  | Number $^{1}$ |  |  | Percent $^{2}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Incentive offered | Eligible | Responded |  | Eligible $^{3}$ | Responded $^{4}$ | Response rate $^{5}$ |
| Total | 34,330 | 26,110 |  | 76.1 | 100.0 | 76.1 |
| Early-response incentive | 34,330 | 15,010 |  | 43.7 | 57.5 | 43.7 |
| Period of no incentive | 19,320 | 5,250 |  | 27.2 | 20.1 | 15.3 |
| Refusal incentive | 2,410 | 570 |  | 23.6 | 2.2 | 1.7 |
| Nonresponse incentive | 11,660 | 5,280 |  | 45.3 | 20.2 | 15.4 |

${ }^{1}$ Numbers rounded to the nearest 10.
${ }^{2}$ Percentages are based on original unrounded numbers.
${ }^{3}$ Percentages are based on the number of eligible sample members within the row under consideration.
${ }^{4}$ Percentages are based on the total number of respondents.
${ }^{5}$ Percentages are based on the total number of eligible sample members.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

These results indicate that the combination of early-response incentive and other later incentives was required to reach the targeted response rate within the data collection schedule. While the early-response incentive was effective in getting 44 percent of the eligible sample members to complete the survey within the initial 4 weeks of the study, and an additional 15 percent of the sample members completed within 8 weeks after the initial incentive period, the cumulative response rate after 12 weeks was only 59 percent. The refusal and nonresponse incentives were undoubtedly helpful in attaining the additional 17 percent needed to reach the 76 percent response rate.

### 3.3 Burden and Effort

### 3.3.1 Faculty Survey Completion Timing

Like the institution timing analysis, the faculty timing analysis was conducted by embedding time stamps in the programming code for each form (screen) in the survey. From these time stamps, the number of seconds spent on each screen (on-screen time) and the transit time between screens (i.e., the time required to transmit data to the server, the time for the server to store the data and assemble the next page, and the time for the page to be transmitted and loaded on the computer) were calculated. A cumulative on-screen time and a cumulative transit time for the faculty survey also were calculated from the time stamps. The sum of the cumulative on-screen and transit times was the total instrument time (i.e., the number of minutes it took to administer the faculty questionnaire).

Following the 1999 cycle of NSOPF-which averaged over 50 minutes-the faculty questionnaire was shortened substantially, with a goal of achieving a 30-minute survey. The NSOPF:04 field test averaged 42 minutes. Based on the time stamps for each form in the fullscale instrument, the time to complete the entire survey ranged from 8 minutes to 3 hours and

6 minutes, ${ }^{26}$ with an average time of 30 minutes. Of these 30 minutes, approximately 26 minutes, on average, were spent answering questions (on-screen time) and 3 minutes, on average, were spent saving data and loading forms (transit time).

Table 22 presents the overall timing data by mode for completed surveys (excluding partial and abbreviated interviews). Average on-screen time was significantly longer for CATI respondents than for web respondents ( 27 and 26 minutes, respectively; $t=-4.46, p<.0001$ ), while the average transit time was significantly shorter for CATI respondents than for web respondents ( 1 and 4 minutes, respectively; $t=34.94, p<.0001$ ). Presumably, the longer onscreen time for CATI respondents is due to the time it takes to read text out loud, and to the fact that the respondent may ask questions. The shorter transit time for CATI is likely due to the use of a high-speed internet connection by interviewers. Some web respondents may have used slower dial-up connections, which increase transit time. Overall, the interview took less time for CATI respondents than for web respondents ( 29 minutes and 30 minutes, respectively; $t=7.80$, $p<.0001$ ).

Table 22. Average on-screen, transit, and total survey completion time, in minutes, for the faculty questionnaire, by mode: 2004

| Portion of interview | All respondents |  | Web respondents |  | CATI respondents |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average time | Number of cases ${ }^{1}$ | Average time | Number of cases ${ }^{1}$ | Average time | Number of cases ${ }^{1}$ |
| Total | 29.7 | 24,360 | 30.1 | 18,630 | 28.5 | 5,730 |
| Onscreen | 26.5 | 24,360 | 26.3 | 18,630 | 27.1 | 5,730 |
| Transit | 3.2 | 24,360 | 3.8 | 18,630 | 1.4 | 5,730 |

${ }^{1}$ Numbers rounded to the nearest 10. Abbreviated and partial interviews excluded.
NOTE: Detail may not sum to totals because of rounding. CATI = computer assisted telephone interview. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

The onscreen, transit, and total times were significantly shorter for surveys that were completed during business hours (Monday through Friday, 9:00 a.m. to 6:00 p.m.) compared to those completed during evening and weekend hours (onscreen: 26 and 27 minutes, respectively; $t=4.79, p<.0001$; transit: 3 and 4 minutes, respectively; $t=17.71, p<.0001$; total: 29 and 31 minutes, respectively; $t=10.29, p<.0001$ ), as shown in table 23. This may be due to faster internet connections for web respondents at their offices compared to their homes or time pressures during the workday.

[^18]Table 23. Average on-screen, transit, and total completion time, in minutes, by time of day and mode: 2004

| Portion of interview | Web respondents |  |  |  | CATI respondents |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Weekdays 9am-6pm |  | Evenings/weekends |  | Weekdays 9am-6pm |  | Evenings/weekends |  |
|  | Average time | Number of cases | Average time | Number of cases ${ }^{1}$ | Average time | Number of cases ${ }^{1}$ | Average time | Number of cases ${ }^{1}$ |
| Total | 29.2 | 11,620 | 31.4 | 7,010 | 28.5 | 3,710 | 28.6 | 2,020 |
| Onscreen | 26.0 | 11,620 | 26.9 | 7,010 | 27.0 | 3,710 | 27.2 | 2,020 |
| Transit | 3.3 | 11,620 | 4.6 | 7,010 | 1.5 | 3,710 | 1.4 | 2,020 |

${ }^{1}$ Numbers rounded to the nearest 10.
NOTE: Abbreviated and partial interviews excluded, as well as two outliers. Detail may not sum to totals because of rounding. CATI = computer assisted telephone interview.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table 24 provides the average and maximum times (in seconds) to complete each form in the faculty instrument. Seven forms (screens) in the faculty survey took more than 1 minute to administer, on average. These tended to be the more complicated forms and those that collected multiple pieces of information on a single screen. These forms are described in greater detail below.

Table 24. Average and maximum completion time, in seconds, for forms in the faculty instrument: 2004

| Questionnaire form | Description | Time in seconds |  | Number of cases ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Average | Maximum |  |
| Q1 | Instructional duties, any | 19 | 102 | 26,110 |
| Q2 | Instructional duties related to credit courses/activities | 12 | 64 | 24,310 |
| Q3 | Faculty status | 10 | 97 | 26,110 |
| Q4 | Principal activity | 16 | 87 | 26,110 |
| Q5 | Employed full or part time at this institution | 7 | 56 | 26,110 |
| Q6 | Part-time employment is primary employment | 8 | 46 | 8,370 |
| Q8 | Part-time but preferred full-time position | 8 | 63 | 8,340 |
| Q9 | Year began current job | 21 | 131 | 26,110 |
| Q10 | Rank | 14 | 85 | 26,110 |
| Q11 | Rank, year attained professor or associate professor | 27 | 194 | 9,500 |
| Q12 | Tenure status | 12 | 100 | 26,110 |
| Q13 | Tenure, year attained at any postsecondary institution | 19 | 160 | 8,440 |
| Q14 | Union status | 9 | 74 | 26,110 |
| Q15 | Union status, reason not a member | 12 | 82 | 20,850 |
| Q16VS | Principal field of teaching-verbatim | 24 | 134 | 26,110 |
| Q16AC | Principal field of teaching-autocode | 30 | 143 | 23,590 |
| Q16CD | Principal field of teaching-manual code | 54 | 230 | 7,480 |
| Q17A1 | Highest degree | 18 | 131 | 26,110 |
| Q17A1B | Hold PhD and professional degree | 5 | 27 | 2,120 |
| Q17A2 | Highest degree date awarded | 12 | 94 | 25,870 |
| Q17A3VS | Highest degree field-verbatim | 16 | 96 | 25,860 |
| Q17A3AC | Highest degree field-autocode | 16 | 104 | 24,710 |
| Q17A3CD | Highest degree field-manual code | 30 | 189 | 6,570 |
| Q17A4 | Highest degree institution-code | 51 | 245 | 25,850 |

[^19]Table 24. Average and maximum completion time, in seconds, for forms in the faculty instrument: 2004-Continued

| Questionnaire form | Description | Time in seconds |  | Number of cases ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Average | Maximum |  |
| Q17A4A | Highest degree institution-info for later coding | 27 | 87 | 1,270 |
| Q17D | Bachelor's degree date awarded | 13 | 96 | 23,460 |
| Q18 | Other current jobs, number of jobs | 15 | 82 | 26,110 |
| Q19A | Other current jobs, full-time employment | 7 | 66 | 8,290 |
| Q19B | Other current jobs, number in postsecondary instruction | 10 | 75 | 8,130 |
| Q21 | First postsecondary job, current job is first | 17 | 86 | 26,110 |
| Q23 | First postsecondary job, year began | 18 | 99 | 14,310 |
| Q24 | First postsecondary job, part or full time | 8 | 55 | 26,110 |
| Q26 | First postsecondary job, tenure status | 11 | 68 | 14,780 |
| Q27 | Other jobs, any outside postsecondary since degree | 11 | 75 | 26,110 |
| Q28 | Other jobs, sector of previous job | 24 | 123 | 26,110 |
| Q31 | Hours worked per week | 94 | 338 | 24,580 |
| Q32 | Percent distribution of work activities | 78 | 311 | 24,330 |
| Q35A | Number of classes taught, credit and noncredit | 44 | 205 | 23,600 |
| Q35B | Number of classes taught, remedial and distance education | 22 | 127 | 21,240 |
| Q36 | Teaching assistant in any credit class | 9 | 66 | 20,230 |
| Q37 | Number and types of classes taught (up to five classes) | 99 | 402 | 20,220 |
| Q38 | Tools instructor used to evaluate undergraduate students | 68 | 234 | 16,430 |
| Q39 | Website for any instructional duties | 14 | 140 | 23,020 |
| Q41 | Hours per week, e-mailing students | 16 | 87 | 23,020 |
| Q46 | Individual instruction, any | 15 | 94 | 24,550 |
| Q47 | Individual instruction, number of students | 20 | 124 | 8,230 |
| Q47B | Individual instruction, number of hours | 22 | 131 | 7,880 |
| Q48 | Hours per week, committees/advisees/office hours | 61 | 251 | 24,530 |
| Q52A | Career publications/presentations | 100 | 427 | 24,490 |
| Q52B | Recent publications/presentations | 47 | 275 | 21,190 |
| Q53 | Scholarly activity, any | 13 | 93 | 24,470 |
| Q54VS | Scholarly activity, principal field-verbatim | 25 | 203 | 540 |
| Q54AC | Scholarly activity, principal field-autocode | 14 | 53 | 410 |
| Q54CD | Principal research field-manual code | 29 | 139 | 270 |
| Q56 | Scholarly activity, description | 17 | 86 | 14,000 |
| Q55 | Scholarly activity, any funded | 12 | 76 | 13,930 |
| Q61 | Satisfaction, authority/resources/salary/benefits | 60 | 212 | 24,450 |
| Q65 | Retirement plans/history | 18 | 91 | 24,440 |
| Q66 | Income, from institution/other sources | 111 | 403 | 24,420 |
| Q66B | Amount of total individual income (range) | 25 | 194 | 2,730 |
| Q67 | Type of contract, length of unit | 18 | 190 | 24,410 |
| Q68 | Income paid per course/credit unit or term | 11 | 75 | 6,260 |
| Q69 | Amount of income paid per course/credit unit or term | 20 | 184 | 5,170 |
| Q70A | Amount of total household income | 33 | 171 | 24,400 |
| Q70B | Amount of total household income (range) | 13 | 80 | 3,400 |
| Q71 | Gender | 9 | 152 | 25,990 |
| Q72 | Age, year of birth | 6 | 47 | 25,990 |
| Q73 | Race/ethnicity, Hispanic/Latino | 4 | 45 | 25,980 |
| Q74 | Race | 9 | 65 | 25,980 |

[^20]Table 24. Average and maximum completion time, in seconds, for forms in the faculty instrument: 2004-Continued

| Questionnaire form | Description | Time in seconds |  | Number of cases ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Average | Maximum |  |
| Q75 | Disability, any | 10 | 70 | 25,980 |
| Q77 | Marital status, fall 2003 | 7 | 49 | 25,980 |
| Q79 | Dependent children, number | 8 | 48 | 25,980 |
| Q80 | United States birth/citizenship status | 7 | 55 | 25,970 |
| Q82 | Opinion, institution fairness | 32 | 125 | 24,360 |
| Q83 | Opinion about choosing an academic career again | 8 | 57 | 24,360 |

[^21]Q31 and Q32. The questions that asked for the number of hours per week spent on work activities, Q31 (by paid and unpaid activities at the target institution and outside that institution), and the percent distribution of work activities, Q32, took 94 and 78 seconds, respectively, to administer. Each of these forms took longer when administered by telephone interviewers than when self-administered via the web instrument. Q31 averaged 91 seconds for web respondents compared with 103 seconds for CATI respondents ( $t=-13.64, p<.0001$ ). Web respondents averaged 76 seconds on Q32 compared with an average time of 83 seconds for CATI respondents $(t=-7.59, p<.0001)$. The complexity of these questions may have led to the longer times for CATI administration, as respondents often asked interviewers to repeat the question and examples, and asked questions about the appropriate category for certain types of activities.

Q37 and Q38. Two consecutive forms, Q37 and Q38, asked for a great deal of information on a single screen. Q37 was a matrix-style question that asked six questions about each of the credit classes (up to five) the respondent taught. This form took 99 seconds, on average, to administer, with CATI respondents taking significantly less time than web respondents (94 and 100 seconds, respectively, $t=4.26, p<.0001$ ). The matrix of items on Q37, visually different from the rest of the forms in the questionnaire, likely took web respondents extra time to make sense of and answer.

Q38 asked respondents to identify which of 10 different types of student evaluation tools were used in their classes and whether they were used in all, some, or none of the classes. This form took an average of 68 seconds to administer, with CATI respondents taking significantly longer than web respondents ( 93 and 60 seconds, respectively, $t=-49.69, p<.0001$ ).

Q48. This form asked for the number of hours per week the respondent spent on four activities (thesis/dissertation committees, administrative committees, with advisees, and office hours). On average, respondents took 61 seconds to complete this form, with CATI respondents taking significantly longer than web respondents (72 and 57 seconds, respectively, $t=-24.37$, $p<.0001$ ).

Q52A. Q52A, which asked for the number of career publications or presentations in seven categories, took an average of 100 seconds to complete. This may have required respondents to locate their curricula vitae and count the number of publications. CATI respondents spent significantly more time on this item than web respondents (106 and 98 seconds, respectively, $t=-5.88, p<.0001$ ).

Q66. The form asking about respondents' compensation from the target institution and from other sources, Q66, took 111 seconds to complete, on average. This form consisted of six income questions, which were considered to be among the most sensitive items in the questionnaire. Average time to complete this form was shorter for web respondents (109 seconds) than for CATI respondents ( 118 seconds; $t=-7.60, p<.0001$ ).

### 3.3.2 Help Desk

To gain a better understanding of the problems encountered by faculty members attempting to complete the web self-administered questionnaire, software was developed to record each help desk incident that occurred during data collection. For each occurrence, help desk staff confirmed contact information for the sample member, recorded the type of problem, described the problem and resolution, noted its status (pending or resolved), and recorded the approximate time it took to assist the faculty member. Help desk staff were trained not only to answer any calls received from the help desk hotline, but also to conduct telephone interviews when needed. Help desk staff members assisted sample members with questions about the web instrument and provided technical assistance to sample members who experienced problems while completing the self-administered web survey. Help desk agents also responded to voice mail messages left by respondents when the call center was closed.

Help desk staff assisted 3,860 faculty members (11 percent of the sample). Eighty-one percent of these cases called the help desk only once, 12 percent called twice, 4 percent called three times, and 3 percent called four or more times. Of the 3,860 faculty members who called the help desk, 2,940 ( 76 percent) eventually completed the survey.

Twenty-nine percent of the problems reported by faculty members who called the help desk were for miscellaneous issues. The miscellaneous issues were first coded into specific issues and then these issues were coded into five broader categories as shown in table 25 . First time calls included setting an appointment for the CATI interview, providing a new phone number or e-mail address, promising to complete by phone at a later date, or promising to complete the survey on the Web. Nearly 7 percent of help desk contacts were faculty members calling in to refuse. Follow-up calls to the help desk ( 6 percent) included faculty members checking on the incentive, or verifying that they had completed the survey. Other miscellaneous issues were less than 2 percent of all contacts. Slightly more than 1 percent of help desk calls reported that the faculty member was not at the phone number, e-mail address, or college that was contacted.

Other specific issues handled by the help desk included requests to complete the survey by telephone ( 21 percent), questions about the study ( 19 percent), browser setting and computer problems ( 14 percent), requests for study ID and/or password ( 12 percent), errors in questionnaire programming ( 3 percent), questions about questionnaire content ( 2 percent), website being down or unavailable (1 percent), and routing/skip problems (less than 1 percent).

Table 25. Response pattern, by help desk problem type: 2004

| Type of problem | Number | Percent |
| :--- | ---: | ---: |
| Total | 5,151 | 100.0 |
| Miscellaneous | 1,491 | 29.0 |
| First time calls (set call back date/time, etc.) | 698 | 13.6 |
| SM called in to refuse | 352 | 6.8 |
| Follow-up calls (checking on incentive, verifying complete) | 284 | 5.5 |
| Other | 94 | 1.8 |
| SM not at this number/college | 63 | 1.2 |
| Called in to complete by phone | 1,078 | 20.9 |
| Question about study | 964 | 18.7 |
| Browser settings/computer problems | 694 | 13.5 |
| Study identification (ID) code/password | 626 | 12.2 |
| Program error | 130 | 2.5 |
| Questionnaire content | 114 | 2.2 |
| Website unavailable | 47 | .9 |
| Routing/skip problems | 7 | .1 |

NOTE: Detail may not sum to totals because of rounding. SM = sample member.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 3.3.3 Interviewer Hours

A total of 17,639 telephone interviewing staff hours (including help desk staffing, telephone follow-up calls, and CATI interview hours) were expended during faculty data collection. These hours do not include supervision, monitoring, administration, and Quality Circle meetings. The average time spent per completed CATI interview was 2.7 hours and per completed interview overall (including web completes) was 0.7 hours. The average time to administer the CATI was 29 minutes, which shows that a majority of interviewer time was spent on other activities. These other activities focused on contacting and locating the sample member, with a small portion of time devoted to bringing up a case, reviewing its history, and closing the case (with the appropriate reschedule, comment, and disposition). A significant proportion of the web completes occurred after the period of telephone follow-up began and were completed only after several CATI follow-up calls had been made to the respondent.

### 3.3.4 Number of Calls

Telephone interviewers made 226,777 call attempts to faculty members during the NSOPF:04 data collection period (see table 26). The number of calls per case ranged from 0 to 152. On average, six calls ${ }^{27}$ were made to each sample member. Those who were not interviewed received the highest average number of calls. An average of four call attempts were required for respondents compared to an average of 13 call attempts for nonrespondents ( $t=60.9, p<.0001$ ). Faculty members who completed the web self-administered questionnaire were called significantly fewer times, with an average of three call attempts per completed survey, compared to an average of eight calls to CATI respondents $(t=41.5, p<.0001)$.

[^22]Table 26. Total and average number of calls, by completion status and mode of completion: 2004

| Completion status/mode | Number of <br> cases $^{1}$ | Number of <br> calls | Average <br> calls per case |
| :--- | ---: | ---: | ---: |
| Total | 35,630 | 226,777 | 6.4 |
| Interviewed | 26,110 | 102,946 | 3.9 |
| Not interviewed | 9,520 | 123,831 | 13.0 |
| By mode | 26,110 | 102,946 | 3.9 |
| Web complete | 19,780 | 53,621 | 2.7 |
| CATI complete | 6,330 | 49,325 | 7.8 |

${ }^{1}$ Number of respondents rounded to nearest 10.
NOTE: Detail may not sum to totals because of rounding. CATI = computer assisted telephone interview. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Call screening is a growing problem for studies that rely on the telephone as a mode of contact. Devices such as telephone answering machines can be used to screen unwanted calls. Of the 19,394 cases called by telephone interviewers, 15,183 cases ( 78 percent) reached an answering machine at least once (see table 27). Interviewers made significantly more calls to cases where an answering machine had been reached at least once (mean attempts $=13$ ) than they did to cases where no answering machine was reached (mean attempts $=5 ; t=-46.81$, $p<.0001$ ). Likewise, cases where an answering machine had been reached at least once were less likely to have completed the interview ( 54 percent) than cases where no answering machine was reached ( 63 percent; $\chi^{2}=92.4, p<.0001$ ).

Table 27. Average call attempts, by reached answering machine: 2004

| Result of call attempt | Cases called in CATI |  | Completed cases |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number of cases | Average number of calls | Number of cases ${ }^{1}$ | Average number of calls |
| Reached answering machine at least once | 15,183 | 13.4 | 8,230 | 11.2 |
| Never reached an answering machine | 4,211 | 5.4 | 2,630 | 4.0 |

${ }^{1}$ Numbers rounded to the nearest 10.
NOTE: Excludes 16,240 completed cases that were never called by telephone interviewers because they completed the self-administered questionnaire during or soon after the early-response period of data collection. Some of the cases called by telephone interviewers actually completed the web self-administered questionnaire. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Looking only at completed cases, significantly fewer calls were required to obtain a completed interview when no answering machine was reached (mean attempts $=4$ ) compared to cases in which an answering machine was reached at least once (mean attempts $=11, t=-40.69$, $p<.0001$ ). Those who possessed answering machines were included in the survey definition of "accessible"; however, it took considerable persistence and resources (in the form of repeated call attempts) to reach these faculty members. This finding demonstrates that answering machines and other call screening devices are increasing the effort that must be expended to reach these cases, thereby driving up interviewing costs.

In addition, cases where an answering machine was reached on more than one-half of the call attempts required significantly more effort to contact and interview. The mean number of attempts for cases that reached an answering machine less than one-half of the time was 10 compared to $13(t=-15.3, p<.0001)$ for cases that reached an answering machine more than one-half of the time. Similarly, among completed cases, significantly fewer calls were needed to
complete an interview with cases where an answering machine was reached less than one-half of the time (mean attempts $=8$ ) compared with those where an answering machine was reached more than one-half of the time (mean attempts $=11 ; t=-12.9, p<.0001$ ).

### 3.4 Conclusions

Of the 1,070 eligible institutions, 980 ( 91 percent, unweighted and weighted) provided faculty lists and 920 ( 86 percent) completed the institution questionnaire. A total of 26,110 faculty and instructional staff completed the faculty survey for a 76 percent response rate. Approximately three-quarters ( 76 percent) of respondents completed the web self-administered questionnaire rather than the CATI ( 24 percent). Strategies that helped attain this response rate included tracing, e-mail contacting, and refusal conversion efforts, along with targeted incentives.

# Chapter 4 <br> Evaluation of Data Quality 

Evaluations of data quality serve to identify problems with the data collection processes and instruments in order to remedy them for the next cycle of the study. Project staff evaluated faculty list quality, item nonresponse, item mode effects, breakoffs, coding, quality control monitoring of interviewers, and interviewer feedback. The results of these evaluations are presented in this chapter.

### 4.1 List Quality

### 4.1.1 List Types

Faculty lists may be characterized both by type of media-whether they are electronic or hardcopy - and method of transmission (e.g., fax or mail, e-mail, electronic upload). For the 2004 National Study of Postsecondary Faculty (NSOPF:04), institutions were asked to provide a single, unduplicated (i.e., duplicate entries of names removed) electronic list of faculty in any commonly-used and easily processed format (e.g., ASCII fixed field, comma delimited, spreadsheet format). These preferred electronic file formats are far less labor intensive to process than paper lists and more easily unduplicated by ID number. However, as in previous cycles, paper lists were accepted, as were multiple files (e.g., separate files of full- and part-time faculty) and lists in electronic formats that did not lend themselves to electronic processing (such as word processing formats).

For the first time, institutions were given the option to transmit their electronic faculty lists via a secure upload to the National Study of Faculty and Students (NSoFaS:04) website and were encouraged to do so. (In previous cycles, direct upload was available only by file-transfer protocols, an option that few institutions utilized). Institutions were also given the option of sending a CD-ROM, diskette, or paper list containing the list data or sending the list via e-mail (as an encrypted file, if necessary).

As shown in table 28, the vast majority of lists received were in electronic formats. Of 980 participating institutions, 830 ( 85 percent) supplied an electronic list by upload, e-mail, CDROM, or diskette. Institutions showed a clear preference for uploading their list by direct upload; 590 institutions ( 60 percent of lists overall and 71 percent of electronic lists) delivered their data in this manner.

NSOPF:04 clearly benefited from the increased capability and willingness of institutions to supply lists in electronic formats, compared to previous cycles. As table 29 shows, 65 percent of institutions supplied an electronic list for NSOPF:99, with a majority of them in CD-ROM or diskette formats sent by mail.

Table 28. Number of submitted faculty lists, by type of institution and transmittal mode: 2004

| Institution type | Number of sample institutions ${ }^{1}$ | Number of institutions providing lists via six transmittal modes |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Upload | Electronic \& paper | Diskette | Paper | Abstracted from web directory | E-mail |
| Total | 1,080 | 980 | 590 | \# | 40 | \# | 140 | 200 |
| Public doctoral | 190 | 180 | 120 | \# | \# | \# | 30 | 30 |
| Public master's | 120 | 100 | 60 | \# | 10 | \# | 10 | 30 |
| Public bachelor's | 30 | 30 | 20 | \# | \# | \# | 10 | \# |
| Public associate's | 340 | 290 | 170 | \# | 30 | \# | 30 | 60 |
| Public other | 10 | 10 | 10 | \# | \# | \# | \# | \# |
| Private not-for-profit doctoral | 110 | 100 | 70 | \# | \# | \# | 20 | 20 |
| Private not-for-profit master's | 80 | 80 | 50 | \# | \# | \# | 10 | 10 |
| Private not-for-profit bachelor's | 130 | 120 | 70 | \# | \# | \# | 20 | 30 |
| Private not-for-profit associate's | 10 | 10 | 10 | \# | \# | \# | \# | \# |
| Private not-for-profit other | 60 | 60 | 30 | \# | \# | \# | 20 | 10 |

${ }^{1}$ Number of institutions rounded to nearest 10 . Detail may not sum to totals because of rounding and because of duplicative forms of list transmittal modes.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table 29. Faculty list types, by NSOPF cycle: 1999 and 2004

|  | NSOPF:99 |  |  | NSOPF:04 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Type of list | Number of <br> institutions | Unweighted <br> percent $^{1}$ |  | Number of <br> institutions $^{c}$ | Unweighted <br> percent $^{1}$ |
| Total | 820 | 100 |  | 980 | 100.0 |
| Paper | 290 | 35.0 |  | 10 | 0.6 |
| Electronic (ftp or upload) 2 | 10 | 1.1 |  | 590 | 60.4 |
| Electronic (E-mail) | 220 | 26.6 |  | 200 | 20.7 |
| CD-ROM or diskette | 310 | 37.2 |  | 40 | 4.0 |
| Abstracted from web resource ${ }^{3}$ | - | - |  | 140 | 14.2 |

- Not available.
${ }^{1}$ Percentages are based on original unrounded numbers.
${ }^{2}$ FTP was utilized only in 1999; upload was utilized only in 2004.
${ }^{3}$ In 1999, lists abstracted from web resources were processed as, and included with paper lists. NOTE: Numbers rounded to the nearest 10. Detail may not sum to totals because of rounding. FTP = file transfer protocol.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

For institutions that indicated they lacked the staff or resources to compile a list of faculty on their own within schedule constraints, it was sometimes possible to abstract a list from employee directories, course schedules, or course catalog listings available on the institution's website or through other web resources. As in past cycles (where course catalogs or directories were used as lists of last resort), all such lists were reviewed to ensure they were sufficiently complete for sampling (i.e., included both full- and part-time faculty, did not systematically exclude any subset of faculty and instructional staff). It should be noted that in past cycles, course catalogs and directories comprised a large percentage of lists supplied on (or processed
as) paper. While the web listings utilized for NSOPF:04 required more processing than electronic lists (including reformatting into a spreadsheet or re-keying), they proved, overall, to be far less problematic for processing and sampling than an equivalent paper list. Only 15 percent of institutions submitted paper lists or had lists abstracted from web resources for NSOPF:04; this compares to 35 percent of institutions who submitted paper lists (including lists abstracted from web resources) in NSOPF:99.

### 4.1.2 List Data Quality

As in prior administrations of this study, secured faculty lists were evaluated for accuracy and completeness of information before they were processed for sampling. To facilitate quality control, faculty list counts were compared against counts obtained from the following supplementary sources:

- the institution questionnaire and/or the file layout form, if a questionnaire was not completed but an overall faculty count was supplied;
- the 2001 Integrated Postsecondary Education Data System (IPEDS) Fall Staff Survey;
- the Contact Information and File Layout (CIFL) form (which included faculty counts, and used when questionnaire data was unavailable); and
- NSOPF:99: frame data from the 1999 survey.

Discrepancies in counts of full- and part-time faculty between the faculty list and other sources that were outside the expected range were investigated. All institutions with submitted lists that failed any checks were recontacted to resolve the observed discrepancies.

Because of time and definitional differences between NSOPF and IPEDS, it was expected that the faculty counts obtained from the institutions and IPEDS would include discrepancies. Consequently, quality control checks against IPEDS were less stringent than those against the institution questionnaire. However, list count comparisons against IPEDS and NSOPF:99 data were useful in identifying systematic errors, particularly those related to miscoding of the employment status of faculty members. Table 30 shows the types of discrepancies encountered by type of institution.

Table 30. Type of discrepancies encountered, by type of institution: 2004

| Institution type | Sampled institutions | Discrepant with |  | Unreadable | Insufficient data |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IPEDS | QUEX |  | Needed for sampling | CIFL |
| Total | 1,080 | 300 | 280 | 10 | 180 | 190 |
| Public doctoral | 190 | 70 | 50 | \# | 40 | 30 |
| Public master's | 120 | 30 | 30 | \# | 10 | 20 |
| Public bachelor's | 30 | 10 | 10 | \# | 10 | 10 |
| Public associate's | 340 | 80 | 90 | \# | 30 | 60 |
| Public other | 10 | \# | \# | \# | \# | \# |
| Private not-for-profit doctoral | 110 | 40 | 30 | \# | 20 | 20 |
| Private not-for-profit master's | 80 | 20 | 20 | \# | 20 | 10 |
| Private not-for-profit bachelor's | 130 | 30 | 40 | \# | 30 | 20 |
| Private not-for-profit associate's | 10 | \# | \# | \# | \# | \# |
| Private not-for-profit other | 60 | 20 | 20 | \# | 20 | 10 |

\# Rounds to zero.
NOTE: IPEDS is the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System; QUEX refers to the institution questionnaire; CIFL refers to the contact information and file layout forms. Numbers rounded to the nearest 10. Detail may not sum to totals because of rounding. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table 31 shows the percent differences between the three sources of data for all cycles of NSOPF (1988, 1993, 1999, and 2004). The discrepancies between the faculty lists and institution questionnaire counts have declined over time. Also, table 32 shows mean differences between sources of data across all cycles of NSOPF. More details regarding the quality of faculty lists secured for NSOPF:04 are provided in appendix H .

Table 31. Percentage differences between sources of data across all cycles of NSOPF: 1988 to 2004

|  |  | Number of | Percent difference in faculty counts |  |  |  |  |  |  |
| :--- | :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Comparison | Year | institutions | $<-50$ | -50 to -31 | -30 to -11 | -10 to 10 | 11 to 30 | 31 to 50 | $>50$ |
| LIST-IPEDS | 1988 | 410 | 8.0 | 5.6 | 14.9 | 35.4 | 16.6 | 7.6 | 12.0 |
|  | 1993 | 660 | 5.0 | 5.2 | 11.3 | 25.4 | 23.8 | 13.3 | 16.0 |
|  | 1999 | 770 | 6.4 | 6.5 | 13.6 | 33.7 | 23.0 | 6.8 | 9.9 |
|  | 2004 | 980 | 2.4 | 4.1 | 12.2 | 32.4 | 23.1 | 9.3 | 16.6 |
| QUEX-LIST | 1988 | 410 | 1.9 | 3.9 | 16.6 | 51.2 | 15.1 | 2.4 | 8.8 |
|  | 1993 | 750 | 3.7 | 6.5 | 13.2 | 41.7 | 12.3 | 6.1 | 16.5 |
|  | 1999 | 770 | 1.4 | 2.7 | 7.0 | 72.3 | 5.6 | 3.2 | 7.8 |
|  | 2004 | 900 | 1.2 | 1.3 | 3.8 | 82.6 | 4.9 | 2.0 | 4.1 |
| QUEX-IPEDS | 1988 | 410 | 3.9 | 6.8 | 15.9 | 34.6 | 20.0 | 7.8 | 11.0 |
|  | 1993 | 690 | 2.3 | 4.5 | 9.2 | 26.6 | 25.4 | 12.6 | 19.3 |
|  | 1999 | 790 | 3.3 | 6.6 | 11.4 | 40.7 | 22.0 | 6.7 | 9.5 |
|  | 2004 | 900 | 1.6 | 2.1 | 9.2 | 37.1 | 24.6 | 9.5 | 16.1 |

NOTE: LIST refers to the faculty list provided by sampled institutions; IPEDS is the National Center for Education Statistics' Integrated Postsecondary Education Data System; QUEX refers to the institution questionnaire. Numbers rounded to the nearest 10.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table 32. Mean differences between sources of data across all cycles of NSOPF: 1988 to 2004

| Comparison | Year | Number of institutions | Standard error ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mean percent differencein faculty counts |  |  |  |
| LIST-IPEDS | 1988 | 410 | 3.0 | (17.3) | 14.1*** | (3.8) |
|  | 1993 | 660 | $88.4{ }^{*}$ | (22.6) | $24.8{ }^{*}$ | (3.1) |
|  | 1999 | 770 | 24.8 | (13.8) | $9.8 *$ | (2.1) |
|  | 2004 | 980 | $57.5{ }^{*}$ | (13.1) | $29.0{ }^{*}$ | (3.2) |
| QUEX-LIST | 1988 | 410 | 8.5 | (16.1) | $11.4 *$ | (3.2) |
|  | 1993 | 750 | 23.5 | (16.7) | 142.4 | (106.8) |
|  | 1999 | 770 | 16.1 | (11.2) | 14.9 * | (2.7) |
|  | 2004 | 900 | 7.6 | (8.8) | $5.1{ }^{*}$ | (1.2) |
| QUEX-IPEDS | 1988 | 410 | 11.6 | (14.7) | $15.8{ }^{*}$ | (3.6) |
|  | 1993 | 690 | 96.3 * | (21.5) | $36.4 *$ | (5.2) |
|  | 1999 | 810 | 53.5** | (12.8) | 18.5*** | (2.7) |
|  | 2004 | 900 | $69.0{ }^{*}$ | (9.4) | $30.2^{*}$ | (3.3) |
| LIST-IPEDS ${ }^{2}$ | 1988 | 330 | -12.3 | (10.9) | 1.2 | (1.1) |
|  | 1993 | 520 | $34.2{ }^{*}$ | (9.4) | $7.4{ }^{*}$ | (1.0) |
|  | 1999 | 640 | 9.8 | (9.8) | $2.7{ }^{*}$ | (0.8) |
|  | 2004 | 790 | 10.0 | (9.3) | $5.7{ }^{*}$ | (0.7) |
| QUEX-LIST ${ }^{2}$ | 1988 | 370 |  |  | -1.1 * | (0.8) |
|  | $1993$ | 600 | $-22.0$ | (7.9) | -0.1** | (0.8) |
|  | 1999 | 700 | -18.5* | (6.0) | -0.1* | (0.9) |
|  | 2004 | 850 | 2.0 | (2.4) | 0.6 | (0.3) |
| QUEX-IPEDS ${ }^{2}$ | 1988 | 350 | 1.5 | (9.1) | 1.4 | (1.1) |
|  | 1993 | 540 | $35.2{ }^{*}$ | (8.2) | $8.6{ }^{*}$ | (0.9) |
|  | 1999 | 690 | 6.7 * | (8.5) | $2.7{ }^{*}$ | (0.7) |
|  | 2004 | 740 | 29.9 * | (8.9) | $7.8{ }^{*}$ | (0.7) |

* Statistically significant at alpha $=.05$, based on paired t-test.
${ }^{1}$ Standard errors assume simple random sampling.
${ }^{2}$ Observations with percent differences greater than 50 in absolute value were excluded.
NOTE: LIST refers to the faculty list provided by sampled institutions; IPEDS is the National Center for Education Statistics' Integrated Postsecondary Education Data System; QUEX refers to the institution questionnaire. Numbers rounded to the nearest 10.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).


### 4.2 Item Nonresponse

Recent studies (for example, DeRouvray and Couper 2002) using web self-administered questionnaires have shown higher than usual rates of missing data when the "refuse" and "don't know" options are presented on the screen. To limit the rate of nonresponse in the institution and faculty instruments, the refusal option was unavailable to respondents and the "don't know" option was limited to selected screens where the respondent might not know the answer (e.g., expected age at retirement). On the information page at the start of the questionnaire, respondents were instructed to click the "continue" button to proceed to the next question if they wished to decline to answer a question.

For the institution questionnaire, items with a high rate of missing responses are often those that required lookup by an office on campus other than the Institution Coordinator's (e.g., Human Resources or Academic Affairs) and might reflect a lack of cooperation from those other offices. Two of the 90 items in the questionnaire had more than 15 percent of the data missing.

Details of institution item nonresponse, including the nonresponse bias analysis, are presented in appendix I.

Thirty-four of the 162 items in the faculty questionnaire had more than 15 percent of the data missing. ${ }^{28}$ With the exception of the income items, which were expected to have higher rates of refusal due to their sensitive nature, the primary reason item nonresponse exceeded 15 percent for these items is that each applies to a relatively small subset of respondents (i.e., small denominator) and these items were not included in the abbreviated instrument. The nonresponse bias analysis and details of faculty item nonresponse are presented in appendix I.

### 4.3 Faculty Data Quality

### 4.3.1 Item Mode Effects

The NSOPF:04 faculty instrument was designed to minimize potential mode effects by using a single instrument for both self-administration and CATI. However, whenever multiple modes are used for data collection, the possibility of mode effects is inherent. Because respondents were offered the option of completing the interview by themselves on the Web or with an interviewer, there was the potential for bias due to self-selection or other factors which cannot be accounted for. Therefore, these results should be interpreted as how respondents in different modes of administration answered the survey questions and not as true mode differences.

Due to the large sample size, nearly all test statistics used to measure differences between self-administered and CATI respondents were significant. Reporting all of these statistically significant differences is not substantively meaningful; therefore, only differences of five percentage points or greater are reported. ${ }^{29,30}$

For this analysis, 47 variables were selected, covering the following topic areas: demographic variables, descriptive items, factual items, and opinion-based questions. Criteria for selection of items included importance to the content of this study. Items for which project staff had concerns that there might be mode effects (e.g., complex matrix items) were also selected. Although not presented in tables, the following discussion on item mode effects is based on special tabulations from the 2004 NSOPF faculty data.

## Demographics

Compared to their CATI counterparts, web respondents were more likely to be White (Q74E: 87 percent versus 81 percent, $z=11.65, p<.001$ ). Conversely, CATI respondents were

[^23]more likely to be Black or African American (Q74C: 14 percent versus 7 percent, $z=-16.98$, $p<.001$ ) than their web counterparts. No mode differences were observed for gender or age. ${ }^{31}$

## Descriptors

Web respondents were more likely than CATI respondents to report research as their primary activity (Q4: 11 percent versus 6 percent, $z=11.62, p<.001$ ), be employed full-time (Q5: 73 percent versus 53 percent, $z=29.72, p<.001$ ), be an assistant professor (Q10: 19 percent versus 12 percent, $z=17.81, p<.001$ ), be tenured ( $\mathrm{Q} 12: 34$ percent versus 28 percent, $z=8.79, p<.001$ ) or be on the tenure track (Q12: 16 percent versus 10 percent, $z=11.68$, $p<.001$ ), and not be employed outside the target institution (Q18: 72 percent versus 59 percent, $z=61.15, p<.001$ ). CATI respondents were more likely than web respondents to report teaching as their principal activity (Q4: 77 percent versus 70 percent, $z=-10.73, p<.001$ ), be an instructor (Q10: 27 percent versus 17 percent, $z=-17.49, p<.001$ ), not be on the tenure track (Q12: 51 percent versus 41 percent, $z=28.58, p<.001$ ), and be employed outside the target institution (Q18: 31 percent versus 22 percent, $z=-14.54, p<.001$ ). ${ }^{32}$

## Factual items

Twenty-four factual items were chosen, based on their importance to the study objectives. These factual items were expected to show few, if any, mode differences. These questions centered on eight main topic areas: number of classes taught, year began first postsecondary job, employment sector of previous job, hours per week spent on various tasks, percent time spent on various tasks, use of various methods in the classroom, other activities, and publications.

Classes taught. There were no significant differences observed in mean number of credit and noncredit classes taught at the target postsecondary institution (Q35A1 and Q35A2).

Year began first postsecondary job. There was no significant difference in the mean year web respondents began their first postsecondary job (Q23) compared to their CATI counterparts.

Employment sector of previous job. Web respondents were more likely to have no other job prior to their current position (Q28: 10 percent versus 5 percent, $z=12.21, p<.001$ ) than were CATI respondents. ${ }^{33}$

Hours per week spent on various tasks. Web respondents reported spending more time on paid tasks at the target institution (Q31A), on average, than their CATI counterparts ( 37 hours versus 31 hours, $t=22.70, p<.001$ ), while CATI respondents reported spending more time on paid tasks outside the institution (Q31C) than web respondents ( 12 hours versus 7 hours, $t=-20.37, p<.001)$. No significant differences were found on hours spent on unpaid tasks at the

[^24]institution (Q31B), unpaid tasks outside the institution (Q31D), or hours spent e-mailing students each week (Q41).

Percentage of time spent on various tasks. Respondents were asked to provide the percentage of time they spent on undergraduate instructional activities (Q32A), graduate instructional activities (Q32B), research activities (Q32C), and other activities (Q32D). CATI respondents reported spending a greater percentage of their time each week on instructional activities with undergraduates than web respondents (61 percent versus 53 percent, $t=-13.71, p$ $<.001$ ). ${ }^{34}$

Use of various methods in the classroom. Of the 11 methods in question, only four showed a significant difference by mode. Compared to web respondents, CATI respondents were more likely to report using multiple choice exams (Q38A: 61 percent versus 55 percent, $z=-6.64, p<.001$ ), using essay midterm or final exams (Q38B: 61 percent versus 51 percent, $z=-10.99, p<.001$ ), and to report using service learning experiences (Q38J: 33 percent versus 26 percent, $z=25.23, p<.001$ ). Web respondents were more likely to report using a website for instructional duties (Q39) compared to CATI respondents ( 45 percent versus 35 percent, $z=$ 13.47, $p<.01$ ). ${ }^{35}$

Publications. The average number of articles published in refereed journals in their careers (Q52AA) was no different for web and CATI respondents.

## Opinion

Thirteen opinion-based questions were evaluated for mode differences. Eight of these questions asked how satisfied respondents were with various aspects of their job, including: authority to make decisions, technology-based activities, equipment/facilities, institutional support for teaching improvement, workload, salary, benefits, and job overall (Q61 and Q62). As shown in table 33, CATI respondents were significantly more likely to report being either somewhat or very satisfied with five of the eight items-including equipment/facilities, institutional support for teaching improvements, workload, salary, and job overall-compared to web respondents. ${ }^{36}$ These differences may be due to the effect of social desirability on responses when an interviewer is involved.

[^25]Table 33. Satisfaction with various aspects of job, by mode of administration: 2004

|  |  | Percent |  |
| :--- | :--- | :--- | :--- |
| Item | Description | Web | CATI |
| Q61C | Satisfaction with equipment/facilities | 77.5 | 83.9 |
| Q61D | Satisfaction with institutional support for teaching improvement | 68.8 | 82.7 |
| Q62A | Satisfaction with workload | 77.0 | 83.6 |
| Q62B | Satisfaction with salary | 60.7 | 70.2 |
| Q62D | Satisfaction with job overall | 87.3 | 92.4 |

NOTE: Percentages are based on those indicating they were somewhat or very satisfied with that aspect of their job. CATI = computer assisted telephone interview.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

The remaining five opinion-based questions asked respondents to indicate whether they agreed or disagreed that teaching was rewarded, part-time faculty were treated fairly, female faculty were treated fairly, and racial minorities were treated fairly (Q82); and whether they would choose an academic career again (Q83). CATI respondents were more likely than web respondents to somewhat or strongly agree that good teaching was rewarded ( 82 percent versus 76 percent, $z=-9.35, p<.001$ ) and part-time faculty were treated fairly ( 75 percent versus 65 percent, $z=-13.62, p<.001) .{ }^{37}$

### 4.3.2 Breakoffs

A total of 27,350 sample members started the faculty interview. Of these, 800 were deemed ineligible. Of the 26,550 eligible sample members who started the interview, 26,110 completed either a full, abbreviated, ${ }^{38}$ or partial interview. ${ }^{39}$ An additional 10 cases either refused to be included as respondents or provided insufficient data to be useful. The remaining 430 broke off before completing the workload section (C) and were not considered to be partial completes.

Table 34 lists the forms (screens) that had more than 15 breakoffs. In most cases, the forms with the highest number of breakoffs required detailed recall or requested sensitive information.

[^26]Table 34. Faculty instrument forms where more than 15 sample members terminated the interview: 2004

| Forms $^{1}$ | Description | Number of <br> breakoffs |
| :--- | :--- | ---: |
| Q2 | Instructional duties related to credit courses/activities | 30 |
| Q3 | Faculty status | 30 |
| Q4 | Principal activity | 20 |
| Q17A4 | Highest degree school coding | 30 |
| Q31 | Hours per week, paid and unpaid tasks at institution and elsewhere | 40 |
| Q32 | Percent of time spent on instruction, research, and other activities | 40 |
| Q37 | Description of each class taught (number of weeks, credits, students, etc.) | 30 |
| Q52A | Career publications/presentations | 30 |
| Q66 | Income, from institution/other sources | 20 |

${ }^{1}$ The faculty/instructional staff questionnaire was divided into forms (screens) and items. Each form was structured to include related items.
NOTE: Numbers rounded to the nearest 10.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 4.3.3 Classification of Instructional Programs (CIP) Coding

The assisted coding system was designed for the NSOPF:04 full-scale study to decrease respondent burden by reducing the time and effort needed to code responses. The assisted coding system was used to code field of teaching, highest degree field, and principal field of scholarly activity. The codes for each of these fields were identical (see appendix J for a list of codes). Respondents were asked to provide a verbatim string. The assisted coding system parsed the string, looking for key words or phrases that matched categories in the database. If a match was located, a list of possible fields was provided for the respondent to choose from. In the event a match was not located or the respondent rejected the fields provided by the system, the respondent could manually code the field. This involved choosing a general category from the 32 categories provided in a drop-down box, and then selecting the specific category within the general category. There were a total of 136 specific categories, but within a general category there were never more than 19 specific categories to choose from.

The anticipated benefit to performing this coding in the interview for web respondents is obvious; the sample member can see the categories and select the appropriate general and specific categories. For telephone-administered interviews, this real-time coding may also improve data quality by capitalizing on the availability of the respondent to clarify coding choices at the time the coding was performed; interviewers were trained to use probing techniques to assist in the coding process.

The assisted coding system coded 75 percent of field of teaching strings, 79 percent of highest degree strings, and 50 percent of field of research strings. The assisted coding matches were accepted more readily by CATI interviewers than by web respondents for field of teaching and highest degree (teaching: 86 percent versus 69 percent, $\chi^{2}=703.7, p<.0001$; highest degree: 90 percent versus 74 percent, $\chi^{2}=711.8, p<.0001$ ) but the difference was not significant for field of scholarly activity ( 57 percent versus 48 percent, $\chi^{2}=2.0, p<0.16$ ).

As part of the data evaluation activities, a random sample of 10 percent of the results for each of the three Classification of Instructional Program (CIP) codings (teaching, research, and highest degree) was selected. An expert coder evaluated the verbatim strings for completeness
and for the appropriateness of the assigned codes, determining whether a string was too vague to code or whether a different code should be assigned.

Overall, 71 percent of those sampled for recoding were coded correctly, 13 percent were incorrectly coded, and 15 percent of the strings were too vague to determine whether they were correctly coded. Table 35 shows the results of the 10 percent recode, by mode. The expert coder agreed with the coding performed by the web respondent more often than that done by the CATI interviewer ( $\chi^{2}=9.69, p=0.002$ ).

Table 35. Summary of coding results for fields of teaching, research, and highest degree, by mode of administration: 2004

| Classification of Instructional Programs (CIP) field item | Web respondents |  |  |  | CATI respondents |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Coding attempts sampled | Percent coded correctly | Percent recoded | Percent too vague to code | Coding attempts sampled | Percent coded correctly | Percent recoded | Percent too vague to code |
| Total | 3786 | 72.3 | 14.0 | 13.7 | 1184 | 67.7 | 11.6 | 20.8 |
| Teaching | 1949 | 72.3 | 14.4 | 13.2 | 651 | 67.4 | 12.4 | 20.1 |
| Research | 39 | 53.8 | 28.2 | 17.9 | 5 | 60.0 | 20.0 | 20.0 |
| Highest degree | 1798 | 72.7 | 13.2 | 14.1 | 528 | 68.0 | 10.4 | 21.6 |

NOTE: Detail may not sum to totals because of rounding. CATI = computer assisted telephone interview.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

In addition to the 10 percent recode, all strings that were not coded, were partially coded (into a general area but not a specific discipline), or were coded "other" were evaluated by the expert coder and upcoded into the appropriate CIP categories, where possible. Of the 52,018 verbatim strings provided, a total of 1,506 strings ( 3 percent) qualified for this upcoding; 79 percent of these were web respondents and 21 percent were CATI respondents. Of these 1506 strings for which upcoding was attempted, 82 percent were upcoded, 18 percent were too vague to code, and less than 1 percent were correctly coded as "other."

### 4.3.4 IPEDS Coding

The faculty instrument included a coding system that assisted web respondents and interviewers in collecting postsecondary institution information. This system was designed to improve data quality by allowing respondents to clarify coding choices at the time coding was performed. To assist in the coding process, web respondents were given detailed instructions on screen that enabled them to locate the postsecondary institution. In addition to these on-screen instructions, interviewers were given additional supervised training on how to effectively probe and code respondents' answers.

The institution coding system assigned a six-digit IPEDS identifier for the postsecondary institution that awarded the respondent's highest degree. To facilitate coding, the coding system requested the state and city in which the school was located; from that information, a list of possible schools was displayed, allowing the respondent to select the correct school. The system relied on a look-up table of institutions constructed from the IPEDS institution database.

Of the approximately 25,760 institutions coded over the course of data collection, 1,130 were initially deemed uncodeable. However, based on the information collected (institution name, location, level, and control), 1,025 institutions were positively identified and recoded
during the data file editing stage of the project. Of the remaining 105 uncodeable institutions, 65 provided insufficient data, 20 were identified as closed, 10 were identified as foreign, and 10 were online institutions for which no IPEDS ID was available.

### 4.3.5 Monitoring

Regular monitoring of telephone data collection serves a number of goals, all aimed at maintaining a high level of data quality. These objectives are to identify problem items; to improve interviewer performance by reinforcing good interviewing behavior and discouraging poor behavior; to detect and prevent deliberate breaches of procedure, such as data falsification; and to assess the quality of the data collected.

Two types of monitoring were performed during the NSOPF:04 data collection. The first type was monitoring by project staff, which involved listening to the interview and simultaneously viewing the progress of the interview on screen, using remote monitoring telephone and computer equipment. Project staff evaluated such things as whether the interviewer sounded professional, probed for complete answers, and handled refusal cases appropriately. Interviewers received feedback on their skills, and additional training was provided, if necessary. When monitoring interviews, project staff also evaluated whether the interview was functioning properly and identified questions in the interview that were difficult to administer so that those items could be revised in future studies.

The second type of monitoring, quality assurance monitoring, was conducted by specially trained monitoring staff within the call center. Similar to project staff monitoring, the monitoring system provided for simultaneous listening and viewing of the interview. Monitors evaluated the interviewer-respondent interchange on whether the interviewer (1) delivered the question correctly and (2) keyed the appropriate response. Each of these measures was quantified and daily, weekly, and cumulative reports were produced. Monitoring took place throughout data collection, although monitoring efforts were scaled back around the $19^{\text {th }}$ week due to lighter caseloads corresponding with the end of the academic year for many schools.

Of the 3,221 items monitored, a total of 28 question delivery errors and 14 data entry errors were observed. ${ }^{40}$ This yielded an average error rate of 0.9 percent for question delivery and 0.4 percent for data entry.

### 4.3.6 Interviewer Feedback

## Quality Circle meetings

Quality Circle meetings provided opportunities for interviewers, supervisors, and project staff to discuss data collection issues. These meetings were scheduled regularly throughout the data collection period to ensure that CATI interviews were being conducted in the most effective manner. Interviewer representation was determined by a supervisor so that all staff would have the opportunity to attend these meetings. Project staff updated interviewers and supervisors on the progress of data collection and gathered information to solve problems encountered by interviewers while conducting interviews. The minutes from these meetings were prepared by project staff and were distributed to all interviewers and supervisors. Meeting minutes were

[^27]available in hardcopy and online. Examples of issues raised in Quality Circle meetings included the following.

Progress of data collection. Project staff provided updates regarding the interviews completed to date and goals for the upcoming week. This information benefited both the interviewers and technical staff by recognizing interviewers' efforts and encouraging continued professionalism.

CATI Case Management System (CMS) issues. Interviewers had an opportunity to report CMS issues that required project staff review and discussion. Using the information provided by interviewers, project staff resolved these issues throughout data collection.

Data collection reminders. Several issues were stressed throughout data collection: reminders to verify address information for cases that needed to be remailed and for addresses for incentive checks, how to handle eligibility questions, and tips for locating sample members who are part-time employees. Interviewers were also reminded to complete problem sheets (see later section in this chapter) for any cases that needed attention.

Instrument issues. During the Quality Circle meetings, project staff clarified specific items in the instrument for the interviewers. These items were brought to the attention of project staff in problem sheets, project staff monitoring, or during the Quality Circle meetings themselves. Discussions focused on how to properly code responses (e.g., for Q10, adjunct faculty should be coded as "other," for questions expecting a numeric response, answers between zero and one should be rounded up to one).

Coding. The majority of online coding during data collection was accurate, based on evaluation of verbatim strings and the codes assigned (see earlier section in this chapter on CIP coding), although in some cases the verbatim string was too vague to code. Interviewers were reminded to ask the sample member for the necessary level of detail while entering the verbatim string.

Web issues. A number of web-related issues were raised during Quality Circle meetings. Some sample members reported problems connecting to the website so interviewers were asked to first try to collect the data via CATI or to have someone from the help desk assist the sample member to get connected. Interviewers were reminded to clearly state the study web address (URL) to sample members.

## Problem sheets

When interviewers encountered problems during an interview, a description of the issue was documented in the form of an electronic problem sheet. Project and interviewer supervisory staff regularly reviewed these problem sheets and worked on resolving problems, as appropriate. Approximately 1,169 problem sheets were submitted during the data collection period.

Problem sheets were used as follows:

- To address technical CMS issues. Interviewers documented details of the front-end issues so that a programmer could resolve them.
- To report system and web delays or access problems.
- To document sample member contact information as a workaround for front-end issues.
- To alert project staff to questions about sample member eligibility, contact information, and refusals.
- To record incorrect data that were entered (but not corrected) for a case. Interviewers noted cases where project staff needed to take specific action. Project and interviewer supervisory staff ensured that issues pertinent to data collection were resolved as soon as possible.


## Interviewer debriefing

A debriefing meeting was held at the end of data collection. The purpose of this meeting was to elicit feedback from the interviewers on various aspects of the data collection process, particularly the administration of the faculty questionnaire. In attendance were telephone interviewers, help desk operators and their supervisors, selected project staff, and the study project officer. The debriefing session was highly informative and gave project staff a wealth of information that will inform instrumentation and data collection activities for future studies.

Project staff asked interviewers which items in the instrument were problematic. Interviewers responded with general comments as well as item-specific ones, based on their interviewing experience.

General comments. Interviewers reported that sample members repeatedly indicated that parts of the questionnaire did not apply to them. Typically these respondents were part-time faculty or those who taught at community colleges, medical, or other specialty schools.

Interviewers felt that that the pop-up boxes used to confirm out-of-range values were intrusive, and slowed the pace of the interview unnecessarily. They recommended that pop-up boxes be used sparingly in future web questionnaires.

Question 1. Interviewers felt that the first question in the interview, which asked whether the respondent had instructional duties, was too long and "wordy." They recommended that the question be shortened or broken into parts.

Question 3. Interviewers reported that adjunct faculty did not know what was meant by faculty status.

Question 9. The second sentence in the wording of this item ("consider promotions in rank as part of the same job") was confusing for respondents. Interviewers suggested restructuring the question to include that information before the respondent attempts to answer the question.

Question 15. Q15 (reason for not being a member of a union) had a high rate of don't know responses. Interviewers said this was because adjunct faculty often did not know whether unions were available.

Questions 16, 17, and 54. Interviewers were quite pleased with the new assisted coding system for field of teaching, highest degree, and scholarly activity. It proved to be less burdensome for them, although they indicated some difficulties finding the exact categories that the respondent wanted.

Question 17. Interviewers reported that IPEDS coding screens (Q17A4) were easy to use. One concern was that some schools were listed in the wrong city.

Question 31. Sample members had difficulty distinguishing between paid and unpaid activities, and their ideas of each often differed from the examples provided in the instrument. Some respondents were upset at having to account for their time. Interviewers reported that respondents found this set of questions (Q31, Q32) difficult to answer as it was a lot of information to account for and difficult to break it down precisely.

Questions 31, 41, 47B, 48. Interviewers pointed out that sample members had a hard time providing answers to the hours per week questions when it is something they only do a couple of weeks out of the term (e.g., advising students). They thought some other unit of time might make it easier to collect this information.

Questions 32, 37, 47. Project staff questioned whether there was any confusion over "first-professional students." Interviewers indicated that some faculty at technical schools did not know what was meant by first-professional students.

Question 35. Interviewers reported that sample members often were unclear what was meant by the term "distance education" in Q35C and suggested including the words "Internet courses" in the question wording.

Question 37. Interviewers indicated that the screen takes a lot of time to complete and those who teach unstructured courses found these items difficult to answer.

Question 50. Advising of students (Q50) was a difficult concept for some sample members in the field test and the wording was changed in the full-scale instrument to clarify the meaning. Interviewers indicated this was still a problem and suggested changing the definition provided on-screen. Respondents also wanted clarification of whether this was designated advisees only or whether it included other advising.

Question 52. Interviewers reported that Q52 (number of scholarly works) was administered fairly smoothly; most respondents had a general idea of the number of publications and presentations although a few consulted their resumes. A small number of respondents had numbers of publications that exceeded the maximum allowed and became upset that their volume of scholarly activity was not properly reflected. Interviewers reported that respondents seemed to get tired around this point in the instrument and felt that combining screens for Q52A and Q52B would improve the flow and reduce burden on the respondents.

Question 53. In the field test, respondents sometimes reported confusion over what was meant by scholarly activity. The question text was revised, and this problem was not reported in the full-scale questionnaire. However, some respondents were unsure whether to report only scholarly activities associated with the target institution or all scholarly activities.

Question 62. In the field test, Q62C (satisfaction with benefits) was not answered by many respondents (mostly part-timers) because they did not receive benefits. The wording was slightly altered for the full-scale questionnaire; however, interviewers reported that many parttime and adjunct faculty still could not answer this question. In particular, some respondents were unsure whether the question was asking about medical benefits or other benefits.

Questions 66 and 70. Sample members complained that Q66 and Q70 (income) items were intrusive. Interviewers suggested that having scripted text for why this question is asked would be helpful. Interviewers felt that income questions were unnecessarily repetitive.

Question 74. Respondents insisted that "Caucasian" be listed among the response options (in parentheses after "White"). Interviewers suggested adding scripted text to explain why race is asked about on this form.

Question 82. Q82D (racial minorities treated fairly) had more than 10 percent missing when administered in CATI. Interviewers explained that some part-time and adjunct faculty did not have an opinion on this set of items. They suggested adding a "no opinion" option for each item on this form.

Interviewers who worked on the field test requested that Q84 (feedback textbox) be put back in the instrument as many sample members wanted to provide feedback.

### 4.3.7 Instrument Feedback

Two issues with the faculty instrument became apparent in the data editing process. The first issue had to do with Q1, whether the respondent had any instructional duties. Despite question wording intended to get the respondent to think beyond classroom teaching, half of the respondents who said they did not have any instructional duties provided responses indicating they did have instructional duties on other items in the instrument (i.e., taught one or more credit or noncredit classes [Q35A1 $>0$ or Q35A2>0], provided any individual instruction [Q46=1], spent time on thesis or dissertation committees, comprehensive exams or orals committees [Q48>0], indicated that teaching was their principal activity [Q4=1], or spent time on undergraduate or graduate instructional activities [ $\mathrm{Q} 32 \mathrm{~A}>0$ or $\mathrm{Q} 32 \mathrm{~B}>0$ ]). Items Q 32 A and Q 32 B contradicted Q1 most often. Rather than reconciling in the data editing phase, future cycles of NSOPF would benefit from asking follow-up questions immediately after Q1 for those respondents who said they did not have instructional duties.

The other issue concerned items asking about first-professional students (Q32B, Q37E, Q47A, and Q47B). This term, first-professional student, was apparently misunderstood by many faculty and instructional staff at 2-year institutions who indicated they taught first-professional students at that institution. While on-screen examples of first-professional programs were available on some of these forms, in the future it is advised that a check against level of target institution be inserted into the instrument logic for questions concerning first-professional students.

### 4.4 Comparisons with NSOPF:99

To assess the consistency of survey estimates between the current and prior administrations of NSOPF, weighted estimates were obtained from the 1999 and 2004 survey data for a series of key analytical variables. The results of these assessments are summarized in table 36.

Table 36. Weighted estimates obtained based on the 1999 and 2004 survey data for a series of key analytical variables: 2004

|  | Weighted estimates |  |
| :--- | ---: | ---: |
| Variable | 1999 | 2004 |
| Percent of full-time faculty who were tenured | 53.1 | 47.3 |
| Percent of part-time faculty who were not on tenure track | 78.3 | 86.2 |
| Percent of faculty who were part time | 42.6 | 43.7 |
| Percent of part-time faculty who had retired from another position | 15.4 | 19.6 |
| Percent of full-time faculty whose principal activity was teaching | 64.5 | 62.5 |
| Percent of full-time faculty whose principal activity was research | 11.3 | 14.2 |
| Average percent of time that full-time faculty taught undergraduates | 41.3 | 43.2 |
| Percent of full-time faculty with a doctorate | 57.7 | 59.6 |
| Average number of hours full-time instructional faculty taught per week | 11.0 | 11.1 |
| Average number of hours part-time instructional faculty taught per week | 7.3 | 7.7 |
| Average number of recent refereed publications, full-time faculty | 3.9 | 2.2 |
| Average number of recent refereed publications, part-time faculty | 1.2 | 0.5 |
| Average number of career refereed publications, full-time faculty | 16.0 | 16.0 |
| Average number of career refereed publications, part-time faculty | 4.4 | 4.1 |
| Average basic income of full-time faculty | $\$ 56,841$ | $\$ 67,239$ |
| Average basic income of part-time faculty | 11,613 | 11,010 |
| Average consulting income of full-time faculty who consulted | 8,221 | 7,379 |
| Average consulting income of part-time faculty who consulted | 10,579 | 10,908 |
| Average household income, full-time faculty | 163,127 | 117,702 |
| Average household income, part-time faculty | 125,693 | 92,636 |
| Percent of full-time faculty who were Asian | 5.5 | 9.0 |
| Percent of part-time faculty who were Asian | 2.9 | 3.8 |
| Percent of full-time faculty who were Black | 4.9 | 5.8 |
| Percent of part-time faculty who were Black | 4.3 | 5.7 |
| Percent of full-time faculty who were Hispanic | 3.4 | 3.9 |
| Percent of part-time faculty who were Hispanic | 85.1 | 3.5 |
| Percent of full-time faculty who were White | 87.6 | 36.3 |
| Percent of part-time faculty who were White | 0.6 | 81.7 |
| Percent of full-time faculty who were female | 7.4 | 8.7 |
| Percent of full-time faculty in agriculture and home economics | 2.4 | 3.9 |
| Percent of full-time faculty in business | 9.3 | 38.6 |
| Percent of full-time faculty in education | 12.2 | 2.5 |
| Percent of full-time faculty in engineering | 4.3 | 6.4 |
| Percent of full-time faculty in fine arts | 18.1 | 7.6 |
| Percent of full-time faculty in health sciences | 16.1 | 4.9 |
| Percent of full-time faculty in first-professional health science 1 | 6.4 |  |
| Percent of full-time faculty in humanities | 15.7 | 13.9 |
| Percent of full-time faculty in natural sciences |  | 6.6 |
| Percent of full-time faculty in social sciences | 13.5 |  |
| Percent of full-time faculty in all other programs | 22.4 |  |
| 1 F | 10.5 |  |

${ }^{1}$ First-professional health science is a subset of health sciences (previous row).
NOTE: Detail may not sum to totals due to rounding. Differences in estimates between NSOPF:99 and NSOPF:04 may be due to a number of factors, including actual changes over time, differences in how an item was asked between the two years (see table 8), and data editing and imputation procedures (see chapter 5).
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

## Chapter 5 <br> Data File Development and Imputation

This chapter provides an overview of all procedures used in the development of data files, including descriptions of data editing processes, data swapping, statistical imputations, and derived variable creation.

### 5.1 Overview of the NSOPF:04 Data Files

Data obtained from the 2004 National Study of Postsecondary Faculty (NSOPF:04) faculty and institution questionnaires are contained in two restricted data files (faculty and institution), which are available on a CD-ROM to researchers who have applied for and received authorization from the National Center for Education Statistics (NCES) to access restricted research files. The restricted data files are documented by an Electronic Codebook (ECB), a Windows-based interface that allows users to view descriptive information and statistics about variables and to select variables for extraction into SAS or SPSS data files. The faculty and institution data files can be merged together for joint analysis. The following files were produced:

Faculty data file. Provides faculty-level questionnaire data collected from 26,110 respondents. These data have been edited, swapped, and imputed. The file contains survey variables (variables that start with Q), derived variables (variables that start with X ), and study weights for the faculty file (WTA00) and for the combined faculty and institution files (WTC00-or contextual weight). It also contains replicate weights for variance estimation for the faculty file (WTA01-WTA64) and for the combined faculty and institution files (WTC01-WTC64), the imputation flags (variables that start with F), and INSTID (the IPEDS ID) that will allow faculty file data to be merged with institution file data.

Institution data file. Provides institution-level data collected from 920 institutions. These data have been edited, perturbed, and imputed. The file contains the institution survey variables (variables that start with the letter I), derived variables (variables that start with the letter X), study weight for the institution file (WTB00), replicate weights for variance estimation for the institution file (WTB01-WTB64), imputation flags (variables that start with the letter FI), and INSTID (the IPEDS ID) that will allow data on the institution file to be merged with data on the faculty file.

The faculty and institution files can be merged together for joint analysis by performing a match merge using the variable INSTID. Please note that not all institutions that completed the institution questionnaire have responding faculty, and not all faculty have associated institution questionnaire data. For this reason, when analyzing the faculty and institution data together, responses should be weighted using the contextual weight variables on the faculty file.

The NSOPF:04 institution and faculty analysis variables are presented in appendix K.

### 5.2 Data Coding and Editing

The NSOPF:04 data were coded and edited using procedures developed and implemented for previous NCES-sponsored studies. These coding and editing procedures were refined during the field test for use in the processing of NSOPF:04 full-scale data.

A large part of the data editing and coding was performed in the data collection instruments, including range edits; across-item consistency edits; and coding of fields of teaching, scholarly activities, and highest degree. During and following data collection, the data were reviewed to confirm that the data collected reflected the intended skip-pattern relationships. At the conclusion of data collection, special codes were inserted in the database to reflect the different types of missing data. There are a number of explanations for missing data; for example, the item may not have been applicable to certain respondents or a respondent may not have known the answer to the question. Table 37 lists the set of consistency codes used to assist analysts in understanding the nature of missing data associated with the NSOPF:04 data elements. With the exception of the not applicable codes, missing data were stochastically imputed (see section 5.4). Moreover, for hierarchical analyses and developing survey estimates for faculty members corresponding to sample institutions that provided faculty lists and responded to the institution survey, contextual weights were produced for such subsets of the responding faculty members. These weights, which aggregate to a number less than the weighted total for all responding faculty and instructional staff, are named WTC00 and can be found in weights.dat on the ECB file.

Table 37. Description of missing data codes: 2004

| Missing data code | Description |
| :--- | :--- |
| -1 | Don't know; later set to missing and imputed |
| -3 | Not applicable (item was intentionally skipped) |
| -5 | Not applicable (item was asked but respondent indicated it was not applicable) |
| -7 | Item was not administered (abbreviated interview) or reached (partial interview); later imputed |
| -9 | Respondent did not provide an answer; later imputed |
| SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of |  |
| Postsecondary Faculty (NSOPF:04). |  |

The data cleaning and editing process for NSOPF:04 consisted of the following steps:
Step 1. Review of one-way frequencies for every variable to confirm no missing or blank values and to check for reasonableness of values. This involved replacing blank or missing data with -9 for all variables in the instrument database and examining frequencies for reasonableness of data values.
Step 2. Review of two-way cross-tabulations between each gate-nest ${ }^{41}$ combination of variables to check data consistency. Legitimate skips were identified using the interview programming code as specifications to define all gate-nest relationships and replace -9 (missing values that were blank because of legitimate skips) with -3 (legitimate skip code). Additional checks ensured that the legitimate skip code

[^28]was not overwriting valid data and that no skip logic was missed. In addition, if a gate variable was missing ( -9 ), then the -9 was carried through the nested items.
Step 3. Identify and code items that were not administered due to a partial or abbreviated interview. This code replaced -9 values with -7 (item not administered) based on the section completion and abbreviated interview indicators.

Step 4. Recode "don't know" responses to missing. This code replaced -1 (don’t know) values with -9 (missing) for later stochastic imputation. For selected items for which "don't know" seemed like a reasonable response, variables were created both with and without the "don't know" category.

Step 5. Identify items requiring recoding. During this stage, previously uncodeable values (e.g., text strings) collected in the various coding systems were upcoded, if possible (see sections 4.3.3 CIP coding and 4.3.4 IPEDS coding).
Step 6. Identify items requiring range edits, logical imputations, and data corrections. Descriptive statistics for all continuous variables were examined. Values determined to be out-of-range were either coded to the maximum (or minimum) reasonable value or set to missing for later imputation. Logical imputations were implemented to assign values to legitimately skipped items whose values could be implicitly determined from other information provided. Data corrections were performed where there were inconsistencies between responses given by the sample member.

Concurrent with the data cleaning process, detailed documentation was developed to describe question text, response options, recoding, range edits, logical imputations, data corrections, and the "applies to" text for each delivered variable.

### 5.3 Data Perturbation

A restricted faculty-level data file was created for release to individuals who apply for and meet standards for such data releases. While this file does not include personally identifying information (i.e., name and Social Security number), other data (i.e., institution, Integrated Postsecondary Education Data System [IPEDS] ID, demographic information, and salary data) may be manipulated in such a way to seem to identify data records corresponding to a particular faculty member. To protect further against such situations, some of the variable values were swapped between faculty respondents. This procedure perturbed and added additional uncertainty to the data. Thus, associations made among variable values to identify a faculty respondent may be based on the original or edited, imputed and/or swapped data. For the same reasons, the data from the institution questionnaire were also swapped to avoid data disclosure.

### 5.4 Imputation Methodology

The NSOPF:04 data files include institution-level and faculty-level data obtained from the institution and faculty surveys. All non-verbatim and non-text variables on the NSOPF:04 that had missing variables have been imputed. Specifically, a total of 144 variables were stochastically imputed for the faculty data, and 87 variables were stochastically imputed for the institution data. All remaining missing data were deemed not suitable for imputation, such as the postsecondary institution that awarded the highest degree of a faculty respondent. Most of these
variables were imputed using a weighted sequential hot-deck imputation procedure. A number of variables, including gender and race/ethnicity, were imputed using a combination of cold-deck and logical imputation during the data editing process before the data file was considered ready for stochastic imputation. The specific imputation method used for each variable is specified in the imputation flags on the final restricted datasets.

Table 38 shows the number of variables that were imputed based on the percent missing (imputed) for faculty and institution survey data. Accordingly, data for 26 of the 144 faculty variables were imputed for less than 1 percent of all faculty respondents, whereas data for 7 of the faculty variables were imputed for more than 15 percent of the faculty respondents.

Table 38. Prevalence of missing/imputed data for the faculty and institution surveys: 2004

| Percent imputed | Faculty variables | Institution variables |
| :--- | ---: | ---: |
| Total | 144 | 87 |
| Less than 1 percent | 26 | 0 |
| Between 1 and 5 | 11 | 58 |
| Between 5 and 10 | 93 | 15 |
| Between 10 and 15 | 7 | 11 |
| Over 15 | 7 | 3 |
| NOTE: There are fewer stochastically imputed variables for the faculty and institution questionnaires than their |  |  |
| corresponding analysis variables, since a subset of such items had no missing values after application of logical |  |  |
| imputation. |  |  |
| SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of |  |  |
| Postsecondary Faculty (NSOPF:04). |  |  |

### 5.4.1 Imputation Methods

In broad terms, there are three methods of imputation: logical, cold-deck, and hot-deck imputation. Logical imputation is a process that aims to infer or deduce the missing values from answers to other questions. Cold-deck imputation involves replacing the missing values with data from sources such as data used for sampling frame construction. While resource intensive, these methods often obtain the actual value that is missing. Consequently, attempts were made to fill in the missing values of data using these two methodologies, to the extent possible. In contrast, stochastic imputation methods, such as sequential hot-deck imputation, rely on the observed data to provide replacing values (donors) for records with missing values.

Sequential hot-deck imputation involves defining imputation classes, which generally consist of a cross-classification of covariates, and then replacing missing values sequentially from a single pass through the survey data within the imputation classes. When this form of imputation is performed using the sampling weights, the procedure is called weighted sequential hot-deck imputation. This procedure takes into account the unequal probabilities of selection in the original sample to specify the expected number of times a particular respondent's answer will be used as a donor. These expected selection frequencies are specified so that, over repeated applications of the algorithm, the weighted distribution of all values for that variable-imputed and observed-will resemble that of the target universe. Under this methodology, while each respondent record has a chance to be selected for use as a hot-deck donor, the number of times a respondent record can be used for imputation will be controlled

To implement the weighted sequential hot-deck procedure, imputation classes and sorting variables that are relevant (strong predictor) for each item being imputed were defined. For this study, imputation classes were developed by using a Chi-squared Automatic Interaction

Detection (CHAID) analysis. The CHAID segmentation process divides the data into groups based on the most significant predictor of the item being imputed. Subsequently, this procedure will be repeated using the remaining predictor variables to split each of the emerging groups into smaller subgroups. In this process, a number of subgroups created during a previous iteration might get merged back to form new subgroups. This splitting and merging process continues until no more statistically significant predictors are found, at which point imputation classes are defined from the resulting segments. When dealing with categorical variables, the CHAID process may merge certain categories of such variables that are found not to be significantly different. Similarly, continuous variables are categorized to create the strongest categorical predictors of the item in question.

Using RTI's sequential hot-deck method of imputation, once imputation classes are constructed, items within each class are sorted before the process of donor selection begins. If more than one sorting variable is chosen, a serpentine sort will be 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 respondent's characteristics every time one of the variables changes its value.

It should be noted that, for this study, distinction was made between legitimate and nonlegitimate missing items for imputation. All responses that were left missing as a result of refusal were set to missing and then imputed. Additionally, if the interview was terminated early and some questions were not asked of the respondent, then the value of missing was assigned in those cases as well. However, respondents could legitimately skip questions that did not apply to them. In these cases, the missing responses were coded as legitimate skips (-3) and were not imputed.

### 5.4.2 Imputation of Faculty Data

Item imputation for the faculty questionnaire was performed in several steps. In the first step, the missing values of gender, race, and ethnicity were filled-using cold-deck imputationbased on the sampling frame information or institution record data. These three key demographic variables were imputed prior to any other variables since they were used as key predictors for all other variables on the data file.

After all logical and cold-deck imputation procedures were performed, the remaining variables were imputed using the weighted sequential hot-deck method. Initially, variables were separated into two groups: unconditional and conditional variables. The first group (unconditional) consisted of variables that applied to all respondents, while the second group (conditional) consisted of variables that applied to only a subset of the respondents. That is, conditional variables were subject to "gate" questions. After this initial grouping, these groups were divided into finer subgroups as detailed next.

The unconditional group was divided into two subgroups based on the percent of missing values: less than 1 percent versus greater than 1 percent missing. The conditional variables were divided into three subgroups based on the level of conditionality where this level was essentially determined by the sequence of the questionnaire. For variables in the conditional group, the questionnaire skip patterns were reviewed and variables were grouped according to which variables determine the values of other variables. After these subgroups were constructed, missing values of the variables were imputed in order from lowest percent missing to highest
percent missing within each subgroup, first for the unconditional variables and then for the conditional variables in an ascending level of their conditionality.

All unconditional variables that had less than one percent missing were imputed using imputation classes defined by a combination of gender, race, and ethnicity. Moreover, institution type, ${ }^{42}$ institution size, and faculty type ${ }^{43}$ were used as sort variables to place like records in closer proximity to improve the donor selection process. The imputation classes for the remaining unconditional variables (that had more than one percent missing) and all conditional variables were determined by a CHAID analysis based on key demographic variables that were logically imputed and all imputed variables that had less than one percent missing. After all variables were imputed, consistency checks were applied to the entire faculty data file to ensure that the imputed values did not conflict with other questionnaire items, observed or imputed. This process involved reviewing all of the logical imputation and editing rules as well.

### 5.4.3 Imputation of Institution Data

The imputation process for the missing data from the institution questionnaire involved similar steps to those used for imputation of the faculty data. The missing data for variables were imputed using the weighted sequential hot-deck method. Analogous to the imputation process for the faculty data, the variables were partitioned into conditional and unconditional groups. The unconditional variables were sorted by percent missing and then imputed in the order from the lowest percent missing to the highest. The conditional group was partitioned into three subgroups based on the level of conditionality for each variable, and then imputed in that order. The imputation class for both unconditional and conditional variables consisted of the institution sampling stratum, and the sorting variables included the number of full-time and part-time faculty members.

### 5.4.4 Evaluation of Imputations

A common measure for determining whether an imputation method produces acceptable results (donors) is based on the similarity of the before and after imputation distributions within imputation classes. For evaluation of the imputation results, distributions were considered to be similar when absolute differences were less than 5 percent, where the absolute difference was calculated by comparing the before and after imputation weighted frequencies. If absolute differences were greater than 5 percent, the unweighted distributions were examined to see if the large differences were due to small imputation cells. When possible, such cases were evaluated and resolved by collapsing neighboring imputation classes. The before and after imputation distributions of several key variables are presented in table 39 for the faculty data and table 40 for the institution data. For more information regarding the bias due to item nonresponse, refer to appendix I.

[^29]Table 39. Before and after imputation distributions of key faculty questionnaire variables: 2004

| Variable description | Variable category | Before imputation |  | After imputation |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percent | Number | Percent |
| Faculty status | Total | 26,050 | 100.0 | 26,110 | 100.0 |
|  | No faculty status | 1,670 | 7.1 | 1,680 | 7.2 |
|  | Had faculty status | 24,390 | 92.9 | 24,430 | 92.8 |
| Principal activity | Total | 26,030 | 100.0 | 26,110 | 100.0 |
|  | Teaching | 18,660 | 73.2 | 18,710 | 73.2 |
|  | Research | 2,470 | 8.9 | 2,470 | 8.9 |
|  | Public service | 260 | 1.0 | 260 | 1.0 |
|  | Clinical service | 1,260 | 4.6 | 1,270 | 4.7 |
|  | Administration | 2,070 | 7.2 | 2,070 | 7.3 |
|  | On sabbatical | 380 | 1.4 | 380 | 1.4 |
|  | Other activity | 940 | 3.7 | 950 | 3.7 |
| Employed full or part time at this institution | Total | 26,100 | 100.0 | 26,110 | 100.0 |
|  | Full time | 17,750 | 62.4 | 17,750 | 62.4 |
|  | Part time | 8,350 | 37.6 | 8,360 | 37.6 |
| Rank | Total | 26,090 | 100.0 | 26,110 | 100.0 |
|  | Not applicable | 640 | 2.7 | 640 | 2.7 |
|  | Professor | 5,220 | 18.9 | 5,220 | 18.9 |
|  | Associate professor | 4,210 | 14.8 | 4,210 | 14.8 |
|  | Assistant professor | 4,620 | 16.1 | 4,620 | 16.1 |
|  | Instructor | 5,050 | 20.5 | 5,050 | 20.5 |
|  | Lecturer | 1,230 | 5.3 | 1,230 | 5.3 |
|  | Other title | 5,140 | 21.7 | 5,140 | 21.7 |
| Tenure status | Total | 25,930 | 100.0 | 26,110 | 100.0 |
|  | Tenured | 8,390 | 30.5 | 8,420 | 30.5 |
|  | On tenure track but not tenured | 3,840 | 13.4 | 3,860 | 13.4 |
|  | Not on tenure track | 11,330 | 47.5 | 11,430 | 47.6 |
|  | Not tenured-no tenure system | 2,380 | 8.6 | 2,390 | 8.6 |
| Highest degree | Total | 26,090 | 100.0 | 26,110 | 100.0 |
|  | No degree | 250 | 1.1 | 250 | 1.1 |
|  | Doctorate degree | 12,180 | 44.5 | 12,180 | 44.5 |
|  | First-professional degree | 2,010 | 7.4 | 2,010 | 7.4 |
|  | Master of fine arts/social work | 1,190 | 4.6 | 1,190 | 4.6 |
|  | Other master's degree | 8,080 | 32.5 | 8,090 | 32.5 |
|  | Bachelor's degree | 1,870 | 7.8 | 1,870 | 7.8 |
|  | Associate's degree or equivalent | 390 | 1.6 | 390 | 1.6 |
|  | Certificate/diploma-undergrad program | 140 | 0.5 | 140 | 0.5 |
| Household income (range) | Total | 21,500 | 100.0 | 26,110 | 100.0 |
|  | \$1-24,999 | 460 | 2.4 | 560 | 2.3 |
|  | 25,000-49,999 | 2,520 | 11.6 | 2,990 | 11.4 |
|  | 50,000-74,999 | 4,690 | 22.1 | 5,630 | 21.8 |
|  | 75,000-99,999 | 4,500 | 20.6 | 5,520 | 20.9 |
|  | 100,000-149,999 | 5,460 | 25.2 | 6,690 | 25.5 |
|  | 150,000-199,999 | 2,110 | 9.9 | 2,590 | 10.0 |
|  | 200,000-300,000 | 1,330 | 6.3 | 1,600 | 6.1 |
|  | More than 300,000 | 430 | 2.0 | 530 | 2.0 |

[^30]Table 39. Before and after imputation distributions of key faculty questionnaire variables: 2004Continued

| Variable description | Variable category | Before imputation |  | After imputation |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percent | Number | Percent |
| Race/ethnicity, Hispanic/Latino | Total | 26,030 | 100.0 | 26,110 | 100.0 |
|  | Not Hispanic/Latino | 24,320 | 95.9 | 24,400 | 95.9 |
|  | Hispanic/Latino | 1,700 | 4.1 | 1,700 | 4.1 |
| Race, American Indian or Alaska Native | Total | 25,590 | 100.0 | 26,110 | 100.0 |
|  | Not American Indian/Alaska Native | 25,060 | 98.2 | 25,570 | 98.2 |
|  | American Indian/Alaska Native | 530 | 1.8 | 540 | 1.9 |
| Race, Asian | Total | 25,590 | 100.0 | 26,110 | 100.0 |
|  | Not Asian | 24,030 | 94.0 | 24,480 | 93.8 |
|  | Asian | 1,560 | 6.0 | 1,630 | 6.2 |
| Race, Black or African American | Total | 25,590 | 100.0 | 26,110 | 100.0 |
|  | Not Black/African American | 23,450 | 93.7 | 23,940 | 93.8 |
|  | Black/African American | 2,140 | 6.3 | 2,170 | 6.2 |
| Race, Native Hawaiian or other Pacific Islander |  |  | 100.0 | 26,110 | 100.0 |
|  | Not Native Hawaiian/Pacific Islander | 25,500 | 99.7 | 26,020 | 99.7 |
|  | Native Hawaiian/Pacific Islander | 90 | 0.3 | 90 | 0.3 |
| Race, White | Total | 25,590 | 100.0 | 26,110 | 100.0 |
|  | Not White | 3,670 | 12.2 | 3,780 | 12.3 |
|  | White | 21,920 | 87.9 | 22,330 | 87.7 |

NOTE: Numbers rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

### 5.5 Derived Variables

For NSOPF:04, a total of 45 institution-level and 130 faculty-level derived variables were constructed to simplify access to standard queries useful to analysts, as well as to enhance substantive analysis. Since research questions often require independent or control variables, this set of derived variables was added to the faculty data files. The 45 institution-level derived variables were also added to the institution data files. Multiple sources of data were used to create institution-derived variables, including selected 2000-01 and 1997-98 IPEDS surveys, the Carnegie classification system, and NSOPF:04 sampling information.

Table 40. Before and after imputation distributions of key institution questionnaire variables: 2004

| Variable description | Variable category | Before imputation |  | After imputation |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percent | Number | Percent |
| Full-time benefit: medical insurance | Total | 900 | 100.0 | 920 | 100.0 |
|  | Not Applicable | \# | 0.4 | \# | 0.4 |
|  | All | 860 | 95.8 | 880 | 95.9 |
|  | Some | 40 | 3.7 | 40 | 3.7 |
|  | None | \# | 0.1 | \# | 0.1 |
| Full-time benefit: dental insurance | Total | 900 | 100.0 | 920 | 100.0 |
|  | Not Applicable | \# | 0.4 | \# | 0.4 |
|  | All | 820 | 88.1 | 830 | 88.2 |
|  | Some | 40 | 4.3 | 40 | 4.2 |
|  | None | 40 | 7.2 | 40 | 7.1 |
| Full-time benefit: disability insurance | Total | 890 | 100.0 | 920 | 100.0 |
|  | Not Applicable | \# | 0.4 | \# | 0.4 |
|  | All | 790 | 86.8 | 810 | 86.7 |
|  | Some | 60 | 6.8 | 60 | 6.8 |
|  | None | 40 | 5.9 | 40 | 6.2 |
| Full-time benefit: life insurance | Total | 900 | 100.0 | 920 | 100.0 |
|  | Not Applicable | \# | 0.4 | \# | 0.4 |
|  | All | 810 | 92.2 | 840 | 92.3 |
|  | Some | 50 | 4.4 | 50 | 4.4 |
|  | None | 30 | 2.9 | 30 | 2.9 |
| Full-time benefit: child care | Total | 880 | 100.0 | 920 | 100.0 |
|  | Not Applicable | \# | 0.4 | \# | 0.4 |
|  | All | 200 | 16.2 | 210 | 16.2 |
|  | Some | 50 | 3.1 | 60 | 3.2 |
|  | None | 620 | 80.3 | 650 | 80.2 |
| Full-time benefit: retiree medical insurance | Total | 860 | 100.0 | 920 | 100.0 |
|  | Not Applicable | \# | 0.5 | \# | 0.4 |
|  | All | 470 | 50.6 | 520 | 50.4 |
|  | Some | 210 | 21.6 | 220 | 21.0 |
|  | None | 180 | 27.4 | 190 | 28.2 |
| Full-time benefit: cafeteria-style plan | Total | 880 | 100.0 | 920 | 100.0 |
|  | Not Applicable | \# | 0.4 | \# | 0.4 |
|  | All | 260 | 29.4 | 270 | 29.1 |
|  | Some | 20 | 1.8 | 20 | 1.8 |
|  | None | 600 | 68.4 | 630 | 68.7 |
| Full-time benefit: wellness program | Total | 880 | 100.0 | 920 | 100.0 |
|  | Not Applicable | \# | 0.4 | 10 | 0.4 |
|  | All | 570 | 65.2 | 600 | 65.2 |
|  | Some | 30 | 3.8 | 30 | 3.9 |
|  | None | 270 | 30.6 | 290 | 30.6 |
| Part-time benefit: medical insurance | Total | 900 | 100.0 | 920 | 100.0 |
|  | Not Applicable | 10 | 0.4 | 10 | 0.4 |
|  | All | 80 | 8.1 | 80 | 8.1 |
|  | Some | 390 | 34.4 | 400 | 34.4 |
|  | None | 420 | 57.1 | 430 | 57.2 |
| Part-time benefit: dental insurance | Total | 900 | 100.0 | 920 | 100.0 |
|  | Not Applicable | 10 | 0.4 | 10 | 0.4 |
|  | All | 70 | 7.9 | 70 | 7.8 |
|  | Some | 330 | 30.0 | 340 | 29.8 |
|  | None | 490 | 61.8 | 500 | 62.1 |

\# Rounds to zero.
NOTE: Institution counts are rounded to the nearest 10 to protect the confidentiality of faculty and institutions. However, percentages cited are based on the original unrounded numbers. Detail may not sum to totals due to rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

## Chapter 6 <br> Weighting and Variance Estimation

Three sets of analysis weights were calculated for this administration of the 2004 National Study of Postsecondary Faculty (NSOPF:04), details of which are provided in this section. First, a set of analysis weights was calculated for institutions responding to the institution survey. Next, analysis weights were constructed for responding faculty, which reflected the selection probabilities of institutions providing faculty lists and selection of faculty members within sample institutions. In addition, a set of contextual weights was calculated to use when linking faculty and institution survey data. These analysis weights were constructed as the product of corresponding sampling weights and adjustment factors for frame multiplicity, nonresponse, and poststratification to known control totals. As detailed in the following sections, each component of the final analysis weights represents either the inverse of a selection probability or a weight adjustment to reduce bias.

The institution analysis weights were computed as the product of the following five weight components and adjustment factors:
(1) institution sampling weight (WT1);
(2) institution multiplicity adjustment factor (WT2);
(3) institution nonresponse adjustment factor (WT3);
(4) institution poststratification adjustment factor (WT4); and
(5) institution ratio adjustment factor (WT5).

In order to compute the analysis weights for faculty, first a set of primary sampling unit (PSU) weights were created for institutions providing faculty lists. These interim weights, which are of no analytical utility, were only used as component weights for construction of the final analysis weights for faculty members. Ultimately, the faculty analysis weights were computed as the product of the following nine weight components and adjustment factors:
(1) institution sampling weight (WT1);
(2) institution multiplicity adjustment factor (WT2);
(3) institution nonresponse adjustment (WT3) ${ }^{44}$;
(4) institution poststratification adjustment factor (WT4);
(5) faculty sampling weight (WT5);
(6) faculty multiplicity adjustment factor (WT6);
(7) faculty unknown eligibility adjustment factor (WT7);
(8) faculty nonresponse adjustment factor (WT8); and
(9) faculty poststratification adjustment factor (WT9).

[^31]Analogous to the calculation of analysis weights for the faculty, a set of contextual weights was constructed for the subset of faculty for whom their corresponding institutions had responded to the institution survey. Table 41 summarizes the distribution of institutions providing faculty lists and responding to the institution questionnaire by sampling strata.

Table 41. Counts of sampled, eligible, and participating institutions, by institution type: 2004

| Institution type | Sampled <br> institutions | Eligible <br> institutions | Responded |  |
| :--- | ---: | ---: | ---: | ---: |
| Total | 1,080 | 1,070 | 980 | 920 |
| Public doctoral | 190 | 190 | 180 | 170 |
| Public master's | 120 | 120 | 100 | 110 |
| Public bachelor's | 30 | 30 | 30 |  |
| Public associate's | 340 | 330 | 290 | 290 |
| Public other | 10 | 10 | 10 | 90 |
| Private not-for-profit doctoral | 110 | 110 | 100 | 70 |
| Private not-for-profit master's | 80 | 80 | 80 | 110 |
| Private not-for-profit bachelor's | 130 | 130 | 120 | 10 |
| Private not-for-profit associate's | 10 | 10 | 10 | 50 |
| Private not-for-profit other | 60 | 60 | 60 |  |

NOTE: Detail may not sum to totals because of rounding
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04)

RTI's weighting software GEM (Generalized Exponential Modeling) (Folsom and Singh 2000) has been used for calculation of all weight adjustment factors. Taking advantage of an iterative proportional fitting algorithm and the logit method, GEM provides a comprehensive weighting program that can utilize a large number of predictor variables for creating a more balanced set of weights while automatically curtailing extreme weights that can reduce the efficiency of weighted estimates. For more details on the GEM adjustment procedure, see appendix L. This section provides details of steps taken to construct the resulting weights.

### 6.1 Institution Weights

The institution sampling frame for the NSOPF:04 included a total of 3,380 eligible units, detailed composition of which is provided in section 2.1.1. Reflecting the probability proportional to size scheme of sample selection, the probability of selection for institution $i$ in stratum $r$ was calculated by:

$$
\pi_{r i}=\left\{\begin{array}{l}
\frac{n_{r} S_{r i}}{S_{r+}}, \text { for non - certainty selections } \\
1, \quad \text { for certainty selections }
\end{array}\right.
$$

where:
$n_{r}=$ sample size for stratum $r$,
$S_{r i}=$ composite measure of size for institution $i$ in stratum $r$, and
$S_{r+}=$ composite measure of size for all institutions in stratum $r$.

The initial sample consisted of 1,220 institutions. However, this sample was reduced to a subsample of institutions, since a smaller sample was deemed adequate to secure all precision requirements of NSOPF:04. Therefore, the sampling weight for institution $i$ in stratum $r$ was calculated as a function of its initial and subsequent selection probabilities. With $R_{r}$ representing the subsampling rate in stratum $r$, the sampling weight for the $i$-th institution in that stratum was calculated by:

$$
W T 1_{r i}=\frac{1}{\pi_{r i}} \times \frac{1}{R_{r}}
$$

It should be noted that during the sample refreshing step, institutions were added to the sample of institutions, resulting in total sample of 1,080 institutions for NSOPF:04.

### 6.1.1 Adjustment for Institution Multiplicity

During the institution recruitment and faculty list sampling stages, a number of institutions were identified that had two or more records listed on the Integrated Postsecondary Education Data System (IPEDS). In some cases this was caused by institutions that had recently merged, while in other cases the sample institution had sent a single faculty list covering multiple campuses. For sampling purposes, combined faculty lists that could not be separated were treated as merged institutions and identified under a single IPEDS ID for purposes of tracking survey results.

For institutions with more than one chance of selection, a multiplicity adjustment factor was calculated by estimating, as if the selections were independent, the probability that each record could be selected. Consequently, when an institution had $n$ chances of selection, its probability of selection was calculated by:

$$
1-\prod_{i=1}^{n}\left(1-\pi_{r i}\right)
$$

Next, a multiplicity adjustment factor for the $i$-th sample institution was calculated by:

$$
W T 2_{i}=\frac{1}{\left[1-\prod_{i=1}^{n}\left(1-\pi_{r i}\right)\right] \times W T 1_{i}}
$$

If the given institution did not require such adjustment, its multiplicity adjustment factor was set to unity. This way, the product of $W T 1$ and $W T 2$ equals the reciprocal of the resulting multiple chance of selection for the institutions with positive multiplicity, and equals WT1 for all other institutions.

### 6.1.2 Nonresponse Adjustment

For calculating the analysis weights for institutions responding to the institution questionnaire, an institution (questionnaire) level nonresponse adjustment factor (WT3) was constructed using the product of the institution sampling weights (adjusted for multiplicity) and
the faculty counts from the frame. ${ }^{45}$ For this purpose, the institutional respondent definition provided in section 3.1.1 was used to identify the institution subset belonging to the denominator of this adjustment factor. The resulting adjustment factors, which were calculated using GEM within cells defined by the 10 sampling strata and region, aimed to reduce or eliminate nonresponse bias in survey estimates. Construction of the nonresponse adjustment cells was based on variables that were deemed to be predictive of response status and available for both respondents and nonrespondents.

### 6.1.3 Poststratification Adjustment

A set of poststratification adjustment factors (WT4) was calculated for the 920 institutions responding to the questionnaire using the GEM program. Specifically, nonresponse-adjusted weights for these institutions were ratio-adjusted to the counts of institutions obtained from the sampling frame. Moreover, an additional adjustment factor was calculated to ensure that weighted counts of faculty obtained from the institution survey data would coincide with those obtained from the faculty survey data. As detailed in the next section, the final analysis weights for faculty included ratio adjustments to counts of faculty obtained from the Employees by Assigned Position Survey (EAP) conducted in the Winter 2003-04 IPEDS data collection cycle. In order to achieve the needed concurrence between the weighted estimates obtained from the institution and faculty surveys, the poststratified weights of the 920 institutions were ratio adjusted to the corresponding weighted totals from the faculty data. With this last adjustment factor computed (WT5), the final analysis weight for each responding institution (WTB00) was calculated by:

$$
\mathrm{WTB} 00=\mathrm{WT} 1 \times \mathrm{WT} 2 \times \mathrm{WT} 3 \times \mathrm{WT} 4 \times \text { WT } 5
$$

### 6.2 Faculty Weights

The final analysis weights for faculty were constructed as the product of the final institution weights for the 980 institutions that provided faculty lists (PSU weights), inverse of selection probabilities for faculty, and a series of adjustment factors at the faculty level. The needed PSU level weights, which are different from those calculated above for the 920 institutions responding to the institution questionnaire, were calculated by calibrating the product of the institution sampling weights (adjusted for multiplicity) and the faculty frame counts to the institution counts within each of the sampling strata. Note that since a minimum weighted response rate of 85 percent was secured overall and within each of the sampling strata for institutions providing faculty lists, a nonresponse adjustment factor was not calculated for these institution. Operationally, these institutions were assigned a nonresponse adjustment factor of unity, i.e., WT3 = 1 .

### 6.2.1 Selection Probability for Faculty

The overall faculty sampling strata were defined as the institution sampling strata crossed with the faculty strata within institutions. The sample faculty members were systematically

[^32]selected from the faculty lists at institution-specific rates that were inversely proportional to the institution's probability of selection, as dictated by the sample design. That is, the overall stratum sampling rate divided by the institution's probability of selection:
$$
f_{s i i}=\frac{f_{s}}{\pi_{r i}}
$$
where $f_{s}$ represented the overall faculty sampling rate, and $\pi_{r i}$ represented the institution's probability of selection. The sampling weights (WT5) for each of the 35,630 sample faculty members were calculated as the reciprocal of the above institution-specific faculty sampling rates.

### 6.2.2 Adjustment for Faculty Multiplicity

Faculty members who worked at more than one eligible institution during the 2003-04 academic year had multiple chances of being selected, since they could have been selected from any of the eligible institutions they attended. When this was the case, the resulting multiplicity was adjusted for by dividing the sampling weight of the given faculty by the number of institutions he/she worked at that were eligible for sample selection. Specifically, the faculty multiplicity weight adjustment factor was defined as $\mathrm{WT} 6=1 / \mathrm{M}$, where M is the multiplicity or number of institutions attended by sample faculty, based on the interview data.

### 6.2.3 Adjustment for Unknown Eligibility Status

For nonresponding faculty members whom project staff were unable to contact, the final eligibility status could not be determined. These faculty members were treated as eligible, and their weights were adjusted to compensate for the small portion of faculty members who were actually ineligible. These weight adjustment factors (WT7), which were calculated within cells defined by a cross-classification of institution and faculty types, represented the estimated eligibility rates among faculty members with known eligibility status. For faculty members known to be eligible the weight adjustment factor was set to one.

### 6.2.4 Nonresponse Adjustments

As reported earlier, faculty-level response rates were less than 85 percent, both overall and within a number of sampling strata. Subsequent to a nonresponse bias analysis, details of which are provided in appendix I, adjustment factors were calculated within cells indexed by a cross-classification of the faculty and institution strata and length of time to respond. Again, the weighting program, GEM, was used to create the needed nonresponse adjustment factor (WT8) for each of the 26,110 responding faculty members.

### 6.2.5 Poststratification/Raking Adjustment

To ensure population coverage, nonresponse adjusted weights were further adjusted to match published faculty totals. Specifically, these weights were raked along two dimensions to control totals that were constructed using the Winter 2003-04 Employees by Assigned Position Survey (EAP:03). This source was used to obtain the total number of full- and part-time faculty members by institution type. Moreover, the NSOPF:04 sampling frame was used to generate the distribution of faculty members by race/ethnicity and gender, detailed construction of which is
provided in section 2.1.4 and appendix A. The resulting two raking dimensions are summarized in tables 42 and 43. The raking adjustment factors (WT9) were calculated using GEM.

Table 42. Faculty counts obtained from EAP:03, by institution type and employment status

| Employment status | Institution type |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Total | 1,185,661 | 306,119 | 143,540 | 20,459 | 355,577 | 13,473 | 138,161 | 99,021 | 66,803 | 7,392 | 35,116 |
| Full-time | 662,407 | 238,168 | 90,183 | 11,213 | 116,491 | 6,514 | 94,688 | 44,198 | 41,709 | 3,881 | 15,362 |
| Part-time | 523,254 | 67,951 | 53,357 | 9,246 | 239,086 | 6,959 | 43,473 | 54,823 | 25,094 | 3,511 | 19,754 |

NOTE: Institution types are defined as follows: $1=$ public doctoral, $2=$ public master's, $3=$ public bachelor's, $4=$ public associate's, $5=$ public other, $6=$ private not-for-profit doctoral, $7=$ private not-for-profit master's, $8=$ private not-for-profit bachelor's, $9=$ private not-for-profit associate's, $10=$ private not-for-profit other.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2003 Employee by Assigned Position (EAP).

Table 43. Faculty counts obtained from EAP:03 and NSOPF:04 sampling frame, by institution type, race/ethnicity, and gender

|  | Institution type |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Race/gender | Total | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Asian | 80,704 | 35,993 | 8,804 | 980 | 11,968 | 567 | 14,203 | 3,583 | 2,430 | 184 | 1,992 |
| Asian male | 53,201 | 25,463 | 5,843 | 627 | 6,123 | 371 | 9,772 | 2,241 | 1,373 | 97 | 1,291 |
| Asian female | 27,503 | 10,530 | 2,961 | 353 | 5,845 | 196 | 4,431 | 1,342 | 1,057 | 87 | 701 |
| Black | 68,790 | 11,908 | 10,974 | 1,920 | 25,133 | 882 | 6,621 | 4,430 | 4,614 | 426 | 1,883 |
| Black male | 33,699 | 6,126 | 5,557 | 990 | 11,164 | 396 | 3,625 | 2,205 | 2,371 | 197 | 1,068 |
| Black female | 35,091 | 5,782 | 5,416 | 930 | 13,969 | 486 | 2,996 | 2,224 | 2,243 | 229 | 816 |
| Hispanic | 41,833 | 9,564 | 5,118 | 557 | 17,405 | 255 | 4,124 | 2,414 | 1,397 | 173 | 825 |
| Hispanic male | 23,177 | 5,654 | 2,761 | 317 | 9,284 | 133 | 2,451 | 1,243 | 717 | 103 | 513 |
| Hispanic female | 18,656 | 3,910 | 2,358 | 239 | 8,121 | 122 | 1,673 | 1,171 | 680 | 70 | 312 |
| Other | 994,330 | 248,656 | 118,643 | 17,002 | 301,071 | 11,769 | 113,212 | 88,594 | 58,360 | 6,608 | 30,416 |
| Other male | 575,155 | 158,016 | 66,289 | 9,751 | 154,787 | 6,751 | 74,456 | 49,303 | 33,395 | 3,450 | 18,956 |
| Other female | 419,175 | 90,639 | 52,354 | 7,251 | 146,284 | 5,018 | 38,756 | 39,291 | 24,966 | 3,158 | 11,460 |
| Faculty | $1,185,661$ | 306,119 | 143,540 | 20,459 | 355,577 | 13,473 | 138,161 | 9,021 | 66,803 | 7,392 | 35,116 |
| Male | 685,238 | 195,259 | 80,451 | 11,686 | 181,358 | 7,652 | 90,305 | 54,994 | 37,857 | 3,848 | 21,828 |
| Female | 500,423 | 110,860 | 63,089 | 8,773 | 174,219 | 5,821 | 47,856 | 44,027 | 28,946 | 3,544 | 13,288 |

NOTE: Institution types are defined as follows: $1=$ public doctoral, $2=$ public master's, $3=$ public bachelor's, $4=$ public associate's, $5=$ public other, $6=$ private not-for-profit doctoral, $7=$ private not-for-profit master's, $8=$ private not-for-profit bachelor's, $9=$ private not-for-profit associate's, $10=$ private not-for-profit other.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2003 Employee by Assigned Position (EAP).

Finally, eligibility definitions for NSOPF:04 include non-faculty who provide instruction but do not have teaching as their principal activity. Since there were no published counts for such faculty members that could be used for weighting, nonresponse-adjusted weights were used to develop an estimate for this small subgroup. For this purpose, all emerging 560 non-faculty members retained their nonresponse adjusted weights-totaling to 26,803 - as their final weights and were not included during the above raking process. ${ }^{46}$ That is, a value of one was assigned to the raking adjustment factor for these respondents when calculating their final analysis weights. In general, however, the final analysis weights (WTA00) were computed as the product of the institution and the faculty component weights by:

$$
\mathrm{WTA} 00=\mathrm{WT} 1 \times \mathrm{WT} 2 \times \mathrm{WT} 3 \times \mathrm{WT} 4 \times \mathrm{WT} 5 \times \mathrm{WT} 6 \times \mathrm{WT} 7 \times \mathrm{WT} 8 \times \mathrm{WT} 9
$$

[^33]
### 6.3 Variance Estimation

The 2004 National Study of Postsecondary Faculty (NSOPF:04) 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 faculty and instructional staff was selected from sample institutions providing lists at the second stage. Because of this complex sampling design, statistical analyses should be conducted using software packages that properly account for the employed survey design through use of survey weights.

Most commonly used statistical procedures assume that data are obtained from a simple random sample; that is, that the observations are independent and identically distributed. When the data have been collected using a complex sampling design, the simple random sampling assumption usually leads to underestimating the sampling variance, which would lead to artificially narrow confidence intervals and liberal hypothesis test results; that is to say, rejecting the null hypothesis when it is 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 (Wolter 1985). Software packages that have been developed for analyzing complex sample survey data include SUDAAN, WesVar, Stata, and SAS. SUDAAN is a commercial product developed by RTI. Further information can be obtained from the website http://www.rti.org/sudaan. WesVar is a product of Westat, Inc., for which additional information can be obtained from the website http://www.westat.com/wesvar. Stata is a product of StataCorp LP; additional information about Stata can be found at the following website: http://www.stata.com. SAS information may be found on the SAS corporate website: http://www.sas.com. Also, the National Center for Education Statistics (NCES) has developed a software tool called the Data Analysis System (DAS) for analysis of complex survey data. Information about DAS is available from the website http://nces.ed.gov/das.

The variance estimation strategy chosen for NSOPF:04 has aimed to satisfy the following requirements and design features:

- variance reduction due to stratification at all stages of sampling;
- unequal weighting effects due to nonresponse adjustment and poststratification;
- variance inflation due to clustering;
- estimation of linear and nonlinear statistics such as quantiles; and
- variance reduction due to finite population corrections at the PSU (institution) stage of sampling and the high sampling rates in certain strata.

Commonly applied bootstrap variance estimation techniques satisfy the first four requirements. To meet the last requirement, however, the methodology developed by Kaufman was applied (Kaufman 2004). This methodology incorporates the finite population correction factors at both stages of sampling. However, for NSOPF:04, application of this method reflected the finite population correction factor at the first stage only where sampling fractions were often high. At the second stage, where the sampling fractions were generally low, the finite population correction factor was set to 1.00 .

The Kaufman methodology was used to develop a vector of 64 bootstrap sample weights that are included on the analysis file, along with the full sample analysis weights. Replicate weights were set to zero for units not selected in a particular bootstrap sample while weights for other units were inflated for the bootstrap subsampling. Note that analogous to the full sample weights, these replicate weights were also poststratified to the same set of control totals for calibration.

The number of replicate weights was set at 64 based on an empirical investigation of the behavior of variance estimates as the number of replicates increased. This investigation showed that the stability of variance estimates improved with increasing numbers of replicates and became fairly stable for most estimates when between 50 and 55 replicate weights were used. Also, a similar process of generating replicate weights was used for the institution file except that all procedures relating to the second stage of sampling were omitted.

The vector of $B$ replicate weights allows for computing additional estimates for the sole purpose of estimating a variance. With the 64 sets of replicate weights, the variance of any statistic, $\hat{\theta}$, can be estimated by separately calculating the statistic of interest from each replicate and then using the variability among the resulting estimates to calculate the variance of the given statistic by:

$$
\operatorname{var}(\hat{\theta})=\frac{\sum_{b=1}^{64}\left(\hat{\theta}_{b}^{*}-\hat{\theta}\right)^{2}}{B}
$$

where $\hat{\theta}_{b}^{*}$ is the estimate based on the $b$-th replicate weights.
Once the replicate weights are provided, this estimate can be produced by survey software packages such as SUDAAN, STATA, and WesVar. Here, the analyst should specify the full study and replicate weights appropriate for the given analysis. In this case, the analyst should specify the full study and replicate weights, which are appropriate for the given analysis. Below is an example of a generic SUDAAN code for producing point estimates and their associated standard errors using replicate weights that reflect the reduction in variance due to finite population correction ( $f p c$ ) at the institution stage of sampling. The symbols /* and */ in the code indicate the beginning and end of a comment. Note that the dataset does not need to be sorted.

```
proc descript data=/* insert filename*/ design=brr;
weight STUDYWEIGHT;
repWgt BRRWT01-BRRWT64;
var /*insert variables*/;
subpopn /* insert domain of interest if analysis domain is a subset of faculty members*/;
print nsum mean semean / style=nchs;
```

run;
Again, it should be noted that there are three sets of study (analysis) weights and their corresponding replicate weights. These weights are:

1. Institution weights

Analysis: WTB00
Replicate: WTB01 - WTB64
2. Faculty weights

Analysis: WTA00
Replicate: WTAO1 - WTA64
3. Contextual weights

Analysis: WTC00
Replicate: WTC01 - WTC64
Should analysts decide to use the Taylor Series Linearization method for approximating standard errors of estimates, the design structure (level of clustering) should be specified by identifying the analysis strata and primary sampling units (PSU). Below is an example of generic SUDAAN code to produce estimates and standard errors using Taylor Series approximation. The symbols /* and */ in the code indicate the beginning and end of a comment. Note that the dataset must be sorted by analysis strata and analysis PSUs. ${ }^{47}$
proc descript data $=/ *$ insert filename */ design=wr;
nest analysis stratum analysis PSU;
weight STUDYWEIGHT;
var /*insert variables*/;
subpopn /* insert domain of interest if analysis domain is a subset of faculty members */;
print nsum mean semean / style $=n c h s$;
run;
For each of the three types of analyses-institution, faculty, and contextual (merged)specific design variables, which are generically named analysis stratum and analysis PSU in the above code, need to be identified. These variables are available on corresponding final datasets as described below.

- Institution design variables

Analysis PSU: IPSU
Analysis Stratum: ISTRATUM

- Faculty design variables

Analysis PSU: FPSU
Analysis Stratum: FSTRATUM

- Contextual design variables

Analysis PSU: FPSU
Analysis Stratum: FSTRATUM

[^34]
### 6.4 Design Effects and Standard Errors

Table 44 provides estimates of design effects for selected faculty data. These estimates, which consist of the ratio of variance of estimates under the employed design and simple random sampling (DEFF) $)^{48}$ and the square root of this ratio (DEFT), ${ }^{49}$ are typically used as measures for the efficiency of a sample design. The larger the design effect, the larger the variance of the estimate relative to what would have been obtained under simple random sampling where all units have the same chance of selection.

The standard errors were calculated using SUDAAN with the replicate weights that were calculated for these data, details of which are provided section 6.3. The average design effect for the listed key faculty estimates in table 44 was 1.88 . Briefly, this indicates that due to differential sampling and weight adjustments, the resulting sample is 1.88 times less effective as compared to a simple random sample with 100 percent response rate. That is, the original sample size should be divided by 1.88 to obtain the effective sample size under the employed design. More detailed tables are available in appendix M.

Table 44. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics: 2004

|  |  |  |  | Percent |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Item | Number | Standard error |  |  |  |  |
|  | estimate | Design | SRS | DEFF | DEFT |  |
| Q1: Percent with instructional duties | 26,110 | 97.0 | 0.14 | 0.11 | 1.69 | 1.30 |
| Q2: Percent with some credit instruction | 26,110 | 90.2 | 0.32 | 0.18 | 2.94 | 1.71 |
| Q3: Percent who had faculty status | 26,110 | 92.2 | 0.26 | 0.17 | 2.39 | 1.54 |
| Q4: Percent whose principal activity was teaching | 26,110 | 73.8 | 0.34 | 0.27 | 1.58 | 1.26 |
| Q4: Percent whose principal activity was research | 26,110 | 8.8 | 0.18 | 0.18 | 1.06 | 1.03 |
| Q6: Percent part-time is primary employment | 8,360 | 18.0 | 0.34 | 0.24 | 1.99 | 1.41 |
| Q8: Percent part-time preferred full-time | 8,360 | 28.0 | 0.38 | 0.28 | 1.83 | 1.35 |
| Q10: Percent with academic rank of professor | 26,110 | 21.2 | 0.31 | 0.25 | 1.53 | 1.24 |
| Q12: Percent with tenure | 26,110 | 39.8 | 0.45 | 0.30 | 2.24 | 1.50 |
| Q15: Percent nonunion union not available | 20,880 | 11.7 | 0.27 | 0.20 | 1.91 | 1.38 |
| Q19A1: Percent with other job that is full-time | 26,110 | 11.5 | 0.25 | 0.20 | 1.62 | 1.27 |
| Q35A1: Percent teaching a single credit class | 26,110 | 73.2 | 0.37 | 0.27 | 1.87 | 1.37 |
| Q37F1: Percent with no TA in first class | 21,460 | 93.7 | 0.19 | 0.15 | 1.66 | 1.29 |
| Q37C2: Percent meet > 3 hours for second class | 15,280 | 27.2 | 0.34 | 0.28 | 1.56 | 1.25 |
| Q39: Percent with website for instruction | 26,110 | 84.9 | 0.30 | 0.24 | 1.55 | 1.24 |
| Q62A: Percent not "very satisfied" workload | 26,110 | 31.5 | 0.62 | 0.38 | 2.69 | 1.64 |
| Q64: Percent retired from another position | 26,110 | 57.6 | 0.33 | 0.31 | 1.20 | 1.10 |
| Q68: Percent paid by the course exclude salary | 6,740 | 34.1 | 0.62 | 0.52 | 1.43 | 1.20 |
| Q77: Percent marital status single | 26,110 | 34.8 | 0.58 | 0.52 | 1.22 | 1.11 |
| Q77: Percent marital status married | 26,110 | 69.0 | 0.54 | 0.32 | 2.88 | 1.70 |
| Q81: Percent United States citizen | 26,110 | 36.9 | 0.97 | 0.59 | 2.71 | 1.65 |

[^35][^36]
## References

Abraham, S.Y., Steiger, D.M., Montgomery, M., Kuhr, B.D., Tourangeau, B., Montgomery, B., and Chattopadhyay, M. (2002). 1999 National Study of Postsecondary Faculty (NSOPF:99) Methodology Report (NCES 2002-154). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Berger, A., Kirshtein, R., Zhang, Y., and Carter, K. (2002). Developing the 2004 Faculty Survey: Themes from the Literature on Postsecondary Education. Washington, DC: American Institutes for Research.

Carlson, B.L., Johnson, A.E., and Cohen, S.B. (1993). An Evaluation of the Use of Personal Computers for Variance Estimation with Complex Survey Data. Journal of Official Statistics, 9(4):795-814.

Chen, P., Penne, M.A., \& Singh, A.C. (2000). Experience with the Generalized Exponential Model of Weight Calibration for the National Household Survey on Drug Abuse. American Statistical Association (ASA) Proceedings on Survey Research Methodology Section, 604-609.

Chromy, J.R. (1979). Sequential Sample Selection Methods. Proceedings of the American Statistical Association, Section on Survey Research, pp. 401-406.

Chromy, J.R. (1987). "Design Optimization with Multiple Objectives." Proceedings of the American Statistical Association Section on Social Statistics, pp. 194-199.

Cohen, S.B. (1997). An Evaluation of Alternative PC-Based Software Packages Developed for the Analysis of Complex Survey Data. The American Statistician, 57(13): 285-292.

Cominole, M., Siegel, P., Dudley, K., Roe, D., and Gilligan, T. (Forthcoming). National Postsecondary Student Aid Study 2004 (NPSAS:04) Methodology Report (NCES 2006-180). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

DeRouvray, C., and Couper, M.P. (2002). Designing a Strategy for Reducing "No Opinion" Responses in Web-Based Surveys. Social Science Computer Review, 20(1):3-9.

Deville, J.C., \& Särndal, C.E. (1992). Calibration Estimators in Survey Sampling. Journal of the American Statistical Association (JASA), 87, 376-382.

Education Sciences Reform Act of 2002. (2002). Public Law 107-279, Title I, Section 153. Available: http://www.ed.gov/policy/rschstat/leg/PL107-279.pdf

Folsom, R.E. and Singh, A.C. (2000). The Generalized Exponential Model for Sampling Weight Calibration for Extreme Values, Nonresponse, and Poststratification. Proceedings of the American Statistical Association, Section on Survey Research.

Folsom, R.E., \& Witt, M.B. (1994). Testing a New Attrition Nonresponse Method for SIPP. ASA Proceedings on Survey Research Methodology Section, 428-433.

Heuer, R.E., Cahalan, M., Fahimi, M., Curry-Tucker, J.L., Carley-Baxter, L., Curtin, T.R., Hinsdale, M., Jewell, D.M., Kuhr, B.D., and McLean, L. (2004). 2004 National Study of Postsecondary Faculty (NSOPF:04) Field Test Methodology Report (NCES 2004-01). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Kaufman, S. (2004). Using the Bootstrap in a Two-Stage Design when Some Second-Stage Strata have only One Unit Allocated. Proceedings of the American Statistical Association, Section on Survey Research Methods.

Kojaku, L. and Nuñez, A. (1998). Descriptive Summary of 1995-96 Beginning Postsecondary Students, With Profiles of Students Entering 2- and 4-Year Institutions (NCES 1999-030). Washington DC: U.S. Department of Education, National Center for Education Statistics.

Nettles, M.T., Perna, L.W., and Bradburn, E.M. (2000). Salary, Promotion, and Tenure Status of Minority and Women Faculty in U.S. Colleges and Universities (NCES 2000-173). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
U.S. Department of Education (2001). National Postsecondary Student Aid Study: Student Financial Aid Estimates for 1999-2000 (NCES 2001-209). Washington, DC: National Center for Education Statistics.
U.S. Department of Education (2002). Classification of Instructional Programs: 2000 Edition (NCES 2002-165R). Washington, DC: National Center for Education Statistics.

Wolter, K. (1985). Introduction to Variance Estimation, Springer-Verlag: New York, NY.
Zimbler, L.J. (2001). Background Characteristics, Work Activities, and Compensation of Faculty and Instructional Staff in Postsecondary Institutions: Fall 1998 (NCES 2001-152).
Washington, DC: U.S. Department of Education, National Center for Education Statistics.

## Appendix A Sampling Details

## A. 1 Institution Frame Construction

The institution sample selection has been based on a probability proportional to size (PPS) selection methodology, where each institution was assigned a composite measure of size (MOS) that reflected the number of eligible faculty and instructional staff in each of the following six hierarchical strata in the given order of inclusion: ${ }^{1}$

- Hispanic;
- non-Hispanic Black;
- Asian and Pacific Islander;
- full-time female;
- full-time male; and
- all other.

Faculty counts needed for MOS calculations were initially obtained from the Fall Staff Survey Component of the Winter 2001-2002 Integrated Postsecondary Education Data System (IPEDS) Data Collection (Winter:02 IPEDS). However, this source could not provide all of the information necessary to classify faculty members into one of the above sampling strata. For instance, faculty counts were not reported in a number of institutions, while for others, reported counts were not indexed by race and ethnicity. As a result, the missing information had to be imputed in two steps. As detailed in the next section, the first step consisted of imputing unreported (missing) faculty counts, while in the second step, faculty reported as having unknown race/ethnicity or as nonresident aliens were distributed among the known race categories using a special procedure. Subsequent to these two steps, faculty members in each institution were classified into one of the six sampling strata.

## A.1.1 Imputation of Missing Faculty Counts

As summarized in table A-1, starting with the 3,379 eligible institutions in the NSOPF:04 universe, the Winter:02 IPEDS provided faculty counts for 3,148 institutions, including counts of faculty with unknown race/ethnicity and those listed as nonresident aliens. ${ }^{2}$ Of these 3,148 institutions, 59 were main campuses (parents) that reported to IPEDS the total faculty at the main campus as well as those for their branch (child) campuses. Among the 231 institutions that had no reported faculty counts, 80 were children of the 59 parent campuses and the remaining 151 were campuses without any reported faculty counts.

[^37]Table A-1. Composition of NSOPF:04 institutions based on availability of the Winter:02 IPEDS data

| Institution type | Frequency |
| :--- | ---: |
| All eligible institutions | 3,379 |
| With IPEDS faculty counts | 3,148 |
| Non-parent | 3,089 |
| Parent | 59 |
| Without IPEDS faculty counts | 231 |
| Children | 80 |
| Other | 151 |

NOTE: Parent refers to main campuses. Children refers to branch campuses. IPEDS = Integrated Postsecondary Education Data System.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

The IPEDS allows institutions to provide combined faculty counts for themselves and their branch campuses. The unreported faculty counts for the 80 child campuses were reallocated from their parents according to the following steps. Here, all child institutions corresponding to a parent institution were included, even if such institutions were not eligible for NSOPF:04.

- For the 75 child institutions whose parents had a Carnegie code-accredited, degreegranting colleges and universities-the total count of faculty for each faculty group was reallocated from the parent institutions such that the parent retained twice as many faculty members as each of the children for the given group. This is the procedure followed for IPEDS.
- For the remaining five child institutions whose parents did not have a Carnegie code, the total count of faculty for each group was allocated equally between the parent and its child.

There were 151 institutions in the NSOPF universe that were not eligible for IPEDS imputation ${ }^{3}$ and had no reported faculty counts in the Winter:02 IPEDS. In order to calculate MOS for such institutions, missing counts of faculty members were imputed using a methodology similar to that used to impute all IPEDS data. Specifically, the following steps were taken:

- If data were available from the Fall Staff Survey (IPEDS-S:97 or -S:99), these data were used without any adjustments, with preference given to the more recent data.
- If data were not available from either the IPEDS-S:97 or -S:99, faculty counts were imputed as a function of student counts according to the following steps:
- Using the IPEDS 2000 Fall Enrollment dataset, for each institution the full-time equivalent (FTE) for students was calculated using the following formula:

$$
F T E=\text { Full-time }+\frac{1}{3} \text { Part-time }
$$

[^38]- Each institution was assigned to an imputation group based on institution type and within each group the institution with the closest FTE was selected as the donor institution. Subsequently, the missing faculty counts for each subgroup were imputed using the following ratio estimator, in which the function "Integer" indicates the integer part of the resulting number:

$$
\text { Faculty }_{\text {Missing }}=\text { Integer }\left[\text { Faculty }_{\text {Donor }} \times \frac{F T E_{\text {Missing }}}{F T E_{\text {Donor }}}\right]
$$

## A.1.2 Imputation of Missing Faculty Stratification Information

The majority of the 3,379 NSOPF:04 institutions included faculty members whose race and ethnicity were reported as nonresident alien or as unknown. These race/ethnicity categories had to be reconciled so that such faculty could be allocated to the six sampling strata. As detailed next, this process was carried out separately for faculty with reported unknown race/ethnicity and for faculty who are reported as nonresident aliens.

A large number of institutions included faculty for whom race/ethnicity was reported as unknown. These faculty were assigned to known race categories available from IPEDS (nonHispanic Black, Hispanic, Asian/Pacific Islander, American Indian/Alaska Native, and White) using the following steps.

- For each institution, the percentage of faculty with known race/ethnicity was obtained for groups indexed by gender and employment status (part-time and full-time).
- When the reported race/ethnicity counts of faculty within a gender/employment group were at least 50 percent of the total faculty count for that group (including those with unknown race/ethnicity and nonresident aliens), the count of faculty with unknown race/ethnicity was distributed to each of the race categories in proportion to the reported counts within the gender/employment group.
- Conversely, when the reported race/ethnicity counts of faculty within a gender/employment group were less than 50 percent of the total faculty count, faculty with unknown race/ethnicity were distributed to each of the race categories in proportion to the average distribution of race for that gender/employment group within classes indexed by level of institution (2- and 4-year) and region. Average group distributions were constructed from those institutions with more than 50 percent of race/ethnicity of their faculty reported in the five categories.

Tables A-2 through A-5 summarize the resulting average distributions and other statistics for each of the 16 institution groups within the four gender/employment groups. In addition to faculty with unknown race/ethnicity, many institutions included counts of nonresident alien faculty for whom race/ethnicity was not reported. In such cases, counts of nonresident alien faculty members were distributed among the known race/ethnicity groups within groups indexed by gender and employment status. For this purpose, the needed distributions for nonresident
aliens were obtained from the 1990 through 1999 Survey of Earned Doctorates (SED) data, ${ }^{4}$ since the distribution of reported race/ethnicity based on IPEDS is not representative of nonresident alien faculty members.

Table A-2. Race/ethnicity distribution of full-time male faculty and percent unknown race, by level and region of institution: 2002

| Class |  |  | Percent of race/ ethnicity known |  | Percent mean distribution of all faculty by race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Institution level | $\begin{aligned} & \text { OBE } \\ & \text { region } \end{aligned}$ | 0-49 | 50-100 | Hispanic | Black | Asian/ Pacific Islander | American Indian/ Alaskan Native | White |
| 1 | 4 -year or above | 1 | 8 | 185 | 1.6 | 2.7 | 4.0 | 0.2 | 91.5 |
| 2 | 4 -year or above | 2 | 6 | 436 | 2.0 | 5.0 | 5.0 | 0.1 | 88.0 |
| 3 | 4 -year or above | 3 | 15 | 345 | 2.0 | 3.8 | 4.6 | 0.2 | 89.5 |
| 4 | 4 -year or above | 4 | 8 | 218 | 1.7 | 1.6 | 3.3 | 0.9 | 92.5 |
| 5 | 4 -year or above | 5 | 8 | 461 | 1.7 | 10.5 | 4.5 | 0.3 | 83.0 |
| 6 | 4 -year or above | 6 | 2 | 156 | 4.6 | 4.8 | 5.8 | 1.3 | 83.4 |
| 7 | 4 -year or above | 7 | 1 | 51 | 2.2 | 1.0 | 3.4 | 1.5 | 91.9 |
| 8 | 4 -year or above | 8 | 9 | 259 | 3.7 | 3.5 | 9.3 | 0.4 | 83.2 |
| 9 | At least 2- but less than 4-year | 1 | 4 | 45 | 1.5 | 4.4 | 1.9 | 0.2 | 92.0 |
| 10 | At least 2-but less than 4-year | 2 | 10 | 124 | 2.5 | 5.5 | 2.6 | 0.2 | 89.3 |
| 11 | At least 2-but less than 4-year | 3 | 1 | 156 | 1.4 | 5.1 | 2.6 | 1.2 | 89.7 |
| 12 | At least 2- but less than 4-year | 4 | 1 | 133 | 0.9 | 1.4 | 0.9 | 3.1 | 93.7 |
| 13 | At least 2-but less than 4-year | 5 | 1 | 366 | 1.6 | 8.9 | 1.2 | 0.5 | 87.8 |
| 14 | At least 2-but less than 4-year | 6 | 1 | 129 | 9.8 | 3.2 | 1.8 | 2.6 | 82.7 |
| 15 | At least 2-but less than 4-year | 7 | 1 | 43 | 2.3 | 1.1 | 0.7 | 5.6 | 90.3 |
| 16 | At least 2-but less than 4-year | 8 | 3 | 193 | 7.5 | 4.6 | 6.7 | 1.4 | 79.9 |

NOTE: Office of Business Economics (OBE) regions are defined as $1=$ New England (CT, ME, MA, NH, RI, VT); $2=$ Mid East (DE, DC, MD, NJ, NY, PA); $3=$ Great Lakes (IL, IN, MI, OH, WI); 4 = Plains (IA, KS, MN, MO, NE, ND, SD); 5 = Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV); $6=$ Southwest (AZ, NM, OK, TX); $7=$ Rocky Mountains (CO, ID, MT, UT, WY); $8=$ Far West (AK, CA, HI, NV, OR, WA).
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2002 Integrated Postsecondary Education Data System (IPEDS).

Accordingly, in the first region there are eight 4-year or above institutions at which race/ethnicity was known for less than 50 percent of full-time male faculty members, while there were 185 institutions at which race/ethnicity was known for more than 50 percent of full-time male faculty. The corresponding numbers for at least 2-but less than 4 -year institution are 4 and 45 , respectively in region 1 .

[^39]Table A-3. Race/ethnicity distribution of part-time male faculty and percent unknown race, by level and region of institution: 2002

| Class |  |  | Percent of race/ ethnicity known |  | Percent mean distribution of all faculty by race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Institution level | $\begin{aligned} & \text { OBE } \\ & \text { region } \end{aligned}$ | 0-49 | 50-100 | Hispanic | Black | Asian/ Pacific Islander | American Indian/ Alaskan Native | White |
| 1 | 4-year or above | 1 | 41 | 152 | 1.4 | 3.7 | 2.1 | 0.2 | 92.6 |
| 2 | 4 -year or above | 2 | 70 | 372 | 1.8 | 6.0 | 2.5 | 0.1 | 89.6 |
| 3 | 4 -year or above | 3 | 64 | 296 | 1.1 | 4.6 | 2.4 | 0.2 | 91.7 |
| 4 | 4 -year or above | 4 | 56 | 170 | 0.7 | 3.0 | 1.1 | 0.9 | 94.4 |
| 5 | 4 -year or above | 5 | 85 | 384 | 1.5 | 13.4 | 2.2 | 0.3 | 82.6 |
| 6 | 4 -year or above | 6 | 27 | 131 | 6.2 | 6.6 | 3.8 | 1.1 | 82.4 |
| 7 | 4 -year or above | 7 | 12 | 40 | 3.1 | 1.6 | 1.7 | 2.0 | 91.6 |
| 8 | 4 -year or above | 8 | 66 | 202 | 3.6 | 4.1 | 9.5 | 0.6 | 82.2 |
| 9 | At least 2-but less than 4-year | 1 | 18 | 31 | 1.9 | 5.3 | 1.2 | 0.1 | 91.5 |
| 10 | At least 2-but less than 4-year | 2 | 16 | 118 | 2.9 | 7.5 | 2.8 | 0.2 | 86.7 |
| 11 | At least 2-but less than 4-year | 3 | 13 | 144 | 1.8 | 6.2 | 1.6 | 0.8 | 89.6 |
| 12 | At least 2-but less than 4-year | 4 | 28 | 106 | 1.7 | 3.4 | 0.7 | 2.3 | 92.0 |
| 13 | At least 2-but less than 4-year | 5 | 55 | 312 | 1.6 | 10.6 | 0.6 | 0.5 | 86.8 |
| 14 | At least 2-but less than 4-year | 6 | 26 | 104 | 11.5 | 4.2 | 1.4 | 1.9 | 81.0 |
| 15 | At least 2-but less than 4-year | 7 | 10 | 34 | 4.9 | 1.4 | 0.8 | 9.6 | 83.3 |
| 16 | At least 2-but less than 4-year | 8 | 17 | 179 | 6.6 | 4.5 | 6.8 | 1.4 | 80.8 |

NOTE: Office of Business Economics (OBE) regions are defined as $1=$ New England (CT, ME, MA, NH, RI, VT); $2=$ Mid East (DE, DC, MD, NJ, NY, PA); $3=$ Great Lakes (IL, IN, MI, OH, WI); $4=$ Plains (IA, KS, MN, MO, NE, ND, SD); $5=$ Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV); $6=$ Southwest (AZ, NM, OK, TX); 7 = Rocky Mountains (CO, ID, MT, UT, WY); 8 = Far West (AK, CA, HI, NV, OR, WA).
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2002 Integrated Postsecondary Education Data System (IPEDS).

Table A-4. Race/ethnicity distribution of full-time female faculty and percent unknown race, by level and region of institution: 2002

| Class |  |  | Percent of race/ ethnicity known |  | Percent mean distribution of all faculty by race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Institution level | $\begin{aligned} & \text { OBE } \\ & \text { region } \end{aligned}$ | 0-49 | 50-100 | Hispanic | Black | Asian/ <br> Pacific Islander | American Indian/ Alaskan Native | White |
| 1 | 4-year or above | 1 | 7 | 186 | 1.9 | 2.8 | 3.5 | 0.2 | 91.6 |
| 2 | 4-year or above | 2 | 46 | 396 | 2.5 | 6.5 | 4.1 | 0.2 | 86.8 |
| 3 | 4-year or above | 3 | 15 | 345 | 1.9 | 4.7 | 3.3 | 0.4 | 89.8 |
| 4 | 4-year or above | 4 | 7 | 219 | 1.3 | 2.4 | 1.9 | 1.1 | 93.3 |
| 5 | 4-year or above | 5 | 11 | 458 | 2.1 | 13.8 | 2.3 | 0.6 | 81.3 |
| 6 | 4-year or above | 6 | 5 | 153 | 4.9 | 7.4 | 4.2 | 1.7 | 81.9 |
| 7 | 4-year or above | 7 | 2 | 50 | 2.4 | 0.8 | 4.9 | 1.2 | 90.8 |
| 8 | 4-year or above | 8 | 17 | 251 | 3.7 | 3.0 | 9.3 | 0.6 | 83.4 |
| 9 | At least 2-but less than 4-year | 1 | 2 | 47 | 1.1 | 3.5 | 0.9 | 0.3 | 94.3 |
| 10 | At least 2-but less than 4-year | 2 | 3 | 131 | 1.7 | 6.0 | 1.9 | 0.2 | 90.2 |
| 11 | At least 2-but less than 4-year | 3 | 0 | 157 | 1.1 | 6.5 | 2.0 | 0.5 | 89.9 |
| 12 | At least 2-but less than 4-year | 4 | 0 | 134 | 0.6 | 1.5 | 0.9 | 2.8 | 94.2 |
| 13 | At least 2-but less than 4-year | 5 | 0 | 367 | 1.3 | 13.0 | 0.7 | 0.3 | 84.6 |
| 14 | At least 2-but less than 4-year | 6 | 1 | 129 | 8.3 | 5.0 | 1.7 | 2.2 | 82.8 |
| 15 | At least 2-but less than 4-year | 7 | 1 | 43 | 2.8 | 0.6 | 0.3 | 7.3 | 89.0 |
| 16 | At least 2-but less than 4-year | 8 | 4 | 192 | 7.6 | 5.4 | 7.9 | 1.4 | 77.8 |

NOTE: Office of Business Economics (OBE) regions are defined as $1=$ New England (CT, ME, MA, NH, RI, VT); $2=$ Mid East (DE, DC, MD, NJ, NY, PA); 3 = Great Lakes (IL, IN, MI, OH, WI); 4 = Plains (IA, KS, MN, MO, NE, ND, SD); 5 = Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV); $6=$ Southwest (AZ, NM, OK, TX); $7=$ Rocky Mountains (CO, ID, MT, UT, WY); $8=$ Far West (AK, CA, HI, NV, OR, WA).
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2002 Integrated Postsecondary Education Data System (IPEDS).

Table A-5. Race/ethnicity distribution of part-time female faculty and percent unknown race, by level and region of institution: 2002

| Class |  |  | Percent of race/ethnicity known |  | Percent mean distribution of all faculty by race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Institution level | $\begin{aligned} & \text { OBE } \\ & \text { region } \\ & \hline \end{aligned}$ | 0-49 | 50-100 | Hispanic | Black | Asian/ Pacific Islander | American Indian/ Alaskan Native | White |
| 1 | 4 -year or above | 1 | 40 | 153 | 1.4 | 2.0 | 2.6 | 0.1 | 94.0 |
| 2 | 4 -year or above | 2 | 92 | 350 | 2.6 | 6.6 | 3.5 | 0.2 | 87.1 |
| 3 | 4 -year or above | 3 | 63 | 297 | 1.5 | 5.7 | 2.9 | 0.3 | 89.7 |
| 4 | 4 -year or above | 4 | 52 | 174 | 1.2 | 2.3 | 1.3 | 1.1 | 94.2 |
| 5 | 4 -year or above | 5 | 91 | 378 | 1.9 | 15.0 | 1.8 | 0.1 | 81.3 |
| 6 | 4 -year or above | 6 | 33 | 125 | 6.3 | 8.5 | 2.6 | 0.8 | 81.8 |
| 7 | 4 -year or above | 7 | 11 | 41 | 3.0 | 0.7 | 2.0 | 1.6 | 92.7 |
| 8 | 4 -year or above | 8 | 66 | 202 | 5.3 | 3.2 | 8.2 | 0.5 | 82.8 |
| 9 | At least 2- but less than 4-year | 1 | 18 | 31 | 1.9 | 2.7 | 1.6 | 0.1 | 93.6 |
| 10 | At least 2-but less than 4-year | 2 | 14 | 120 | 3.2 | 7.0 | 2.4 | 0.2 | 87.3 |
| 11 | At least 2-but less than 4-year | 3 | 12 | 145 | 1.4 | 6.9 | 1.3 | 0.8 | 89.7 |
| 12 | At least 2-but less than 4-year | 4 | 21 | 113 | 0.9 | 1.6 | 0.5 | 1.8 | 95.2 |
| 13 | At least 2-but less than 4-year | 5 | 54 | 313 | 1.5 | 13.8 | 0.6 | 0.3 | 83.8 |
| 14 | At least 2-but less than 4-year | 6 | 22 | 108 | 12.7 | 5.1 | 1.1 | 1.7 | 79.4 |
| 15 | At least 2- but less than 4-year | 7 | 10 | 34 | 2.8 | 1.0 | 1.0 | 5.8 | 89.4 |
| 16 | At least 2-but less than 4-year | 8 | 18 | 178 | 6.3 | 4.9 | 8.0 | 1.6 | 79.2 |

NOTE: Office of Business Economics (OBE) regions are defined as $1=$ New England (CT, ME, MA, NH, RI, VT); $2=$ Mid East (DE, DC, MD, NJ, NY, PA); 3 = Great Lakes (IL, IN, MI, OH, WI); 4 = Plains (IA, KS, MN, MO, NE, ND, SD); $5=$ Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV); $6=$ Southwest (AZ, NM, OK, TX); 7 = Rocky Mountains (CO, ID, MT, UT, WY); 8 = Far West (AK, CA, HI, NV, OR, WA).
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2002 Integrated Postsecondary Education Data System (IPEDS).

Using data from the prior 10 years of SED, counts of doctorate recipients with temporary resident status were obtained to construct surrogate distributions of race/ethnicity for nonresident alien faculty members. Specifically, the average race/ethnicity distributions of these individuals were calculated within groups indexed by gender, type of institution (public and private), and region. The appropriate distribution(s) were applied to the number of nonresident aliens in each institution to allocate such counts to one of the known race/ethnicity categories. Tables A-6 and A-7 provide a summary of the resulting average distributions and other statistics for nonresident aliens for each gender.

Table A-6. Race/ethnicity distribution of full- and part-time male temporary residents constructed from the Survey of Earned Doctorates: 1990-1999

| Class |  |  | Percent distribution of temporary residents by race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Control | $\begin{array}{r} \text { OBE } \\ \text { region } \end{array}$ | Hispanic | Black | Asian/Pacific Islander | American Indian/ Alaskan Native | White |
| 1 | Public | 1 | 4.4 | 4.9 | 69.5 | 0.0 | 21.2 |
| 2 | Public | 2 | 4.0 | 3.2 | 71.2 | 0.0 | 21.6 |
| 3 | Public | 3 | 3.7 | 4.2 | 70.2 | 0.0 | 21.9 |
| 4 | Public | 4 | 5.8 | 4.5 | 70.8 | 0.0 | 18.9 |
| 5 | Public | 5 | 5.0 | 4.0 | 69.9 | 0.0 | 21.0 |
| 6 | Public | 6 | 8.3 | 3.2 | 69.0 | 0.0 | 19.5 |
| 7 | Public | 7 | 6.2 | 3.3 | 62.3 | 0.1 | 28.2 |
| 8 | Public | 8 | 6.3 | 2.2 | 63.4 | 0.0 | 28.0 |
| 9 | Private | 1 | 4.8 | 2.9 | 51.4 | 0.0 | 40.8 |
| 10 | Private | 2 | 5.0 | 4.0 | 60.5 | 0.0 | 30.6 |
| 11 | Private | 3 | 3.8 | 3.0 | 65.4 | 0.0 | 27.8 |
| 12 | Private | 4 | 6.0 | 4.8 | 61.2 | 0.0 | 28.1 |
| 13 | Private | 5 | 7.8 | 6.0 | 60.1 | 0.0 | 26.2 |
| 14 | Private | 6 | 6.7 | 3.7 | 60.3 | 0.0 | 29.2 |
| 15 | Private | 7 | 4.2 | 7.9 | 56.6 | 0.0 | 31.2 |
| 16 | Private | 8 | 3.5 | 1.8 | 59.1 | 0.0 | 35.6 |

NOTE: Office of Business Economics (OBE) regions are defined as $1=$ New England (CT, ME, MA, NH, RI, VT); $2=$ Mid East (DE, DC, MD, NJ, NY, PA); 3 = Great Lakes (IL, IN, MI, OH, WI); 4 = Plains (IA, KS, MN, MO, NE, ND, SD); $5=$ Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV); $6=$ Southwest (AZ, NM, OK, TX); 7 = Rocky Mountains (CO, ID, MT, UT, WY); 8 = Far West (AK, CA, HI, NV, OR, WA).
SOURCE: National Science Foundation, 1990-1999 Survey of Earned Doctorates (SED:90-99).

Table A-7. Race/ethnicity distribution of full- and part-time female temporary residents constructed from the Survey of Earned Doctorates: 1990-1999

| Class |  |  | Percent distribution of temporary residents by race/ethnicity |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Control | $\begin{array}{r} \mathrm{OBE} \\ \text { region } \end{array}$ | Hispanic | Black | Asian/Pacific Islander | American Indian/ Alaskan Native | White |
| 1 | Public | 1 | 6.9 | 3.8 | 60.7 | 0.2 | 28.4 |
| 2 | Public | 2 | 6.2 | 2.8 | 64.1 | 0.0 | 26.8 |
| 3 | Public | 3 | 5.1 | 4.1 | 68.1 | 0.0 | 22.7 |
| 4 | Public | 4 | 6.8 | 4.4 | 69.4 | 0.1 | 19.4 |
| 5 | Public | 5 | 6.4 | 4.0 | 65.4 | 0.0 | 24.2 |
| 6 | Public | 6 | 9.1 | 2.7 | 66.9 | 0.1 | 21.2 |
| 7 | Public | 7 | 9.4 | 2.8 | 56.3 | 0.0 | 31.5 |
| 8 | Public | 8 | 7.3 | 2.0 | 57.9 | 0.1 | 32.8 |
| 9 | Private | 1 | 5.4 | 1.8 | 49.8 | 0.0 | 43.0 |
| 10 | Private | 2 | 5.9 | 4.8 | 52.3 | 0.0 | 37.0 |
| 11 | Private | 3 | 2.2 | 2.4 | 64.8 | 0.0 | 30.6 |
| 12 | Private | 4 | 4.1 | 5.7 | 52.5 | 0.0 | 37.7 |
| 13 | Private | 5 | 10.1 | 6.3 | 49.1 | 0.0 | 34.5 |
| 14 | Private | 6 | 8.9 | 1.4 | 66.5 | 0.0 | 23.3 |
| 15 | Private | 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | Private | 8 | 4.3 | 2.9 | 55.6 | 0.0 | 37.2 |

NOTE: Office of Business Economics (OBE) regions are defined as $1=$ New England (CT, ME, MA, NH, RI, VT); $2=$ Mid East (DE, DC, MD, NJ, NY, PA); 3 = Great Lakes (IL, IN, MI, OH, WI); 4 = Plains (IA, KS, MN, MO, NE, ND, SD); $5=$ Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV); $6=$ Southwest (AZ, NM, OK, TX); 7 = Rocky Mountains (CO, ID, MT, UT, WY); 8 = Far West (AK, CA, HI, NV, OR, WA).
SOURCE: National Science Foundation, 1990-1999 Survey of Earned Doctorates (SED:90-99).

## A. 2 Institution Sample Selection

For sampling purposes, 10 institution strata were defined for the NSOPF:04 based on Carnegie classification codes and control. Since the institution sample for the faculty study was selected jointly with that for students, the 10 NSOPF sampling strata were collapsed from the related student-based 58 strata (STRAT58) for the 2004 National Study of Faculty and Students (NSoFaS:04). Table A-8 summarizes the distribution of the resulting sample of institutions by stratum for NSOPF:04. Table A-9 provides a crosswalk between the two sets of strata. Institution sample sizes and their corresponding sampling rates were established using a customized cost/variance optimization procedure, which aimed to identify the allocation that would accommodate all analytical objectives of this survey while minimizing data collection costs.

Table A-8. Distribution of NSOPF:04 full-scale institution sample, by type and Carnegie classification: 2004

| Degree granting | Total | Public | Private not-for-profit |
| :--- | ---: | ---: | ---: |
| Total | 1,080 | 680 | 400 |
| Doctor's | 300 | 190 | 110 |
| Master's | 200 | 120 | 80 |
| Bachelor's | 160 | 30 | 130 |
| Associate's | 350 | 340 | 10 |
| Other/Unknown | 70 | 10 | 60 |

NOTE: Detail may not sum to totals because of rounding. Numbers have been rounded to the nearest 10. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

## A. 3 Faculty Frame Construction

All sampled institutions were contacted to provide lists of faculty and instructional staff who were eligible for NSOPF:04. For this purpose, each institution was requested to provide a complete list of full- and part-time faculty and instructional staff as of November 1, 2003 (or during the fall term of the 2003-04 academic year).

## A.3.1 List Request and Requirements

Each institution was given several options for providing faculty lists, including uploading an electronic copy of the list to a secure website, sending the list as an e-mail attachment, or mailing the list on diskette using the provided shipment material. It was requested that files containing the faculty lists follow a specific layout. Acceptable file formats included ASCII fixed field, ASCII comma-delimited, or Excel spreadsheet. For those institutions not capable of providing electronic lists of faculty and instructional staff, paper lists were suggested as a last choice of format. In addition to campus and home contact information, institutions were asked to provide basic demographic information such as gender, race/ethnicity, academic field, and employment status of each faculty member.

Towards the end of the list collection period, online course catalogs and institution websites were used to abstract lists for those sampled institutions that had failed to provide faculty lists, yet had online sources that could provide adequate information about their faculty
and instructional staff. In all, a total of 139 such lists were abstracted to supplement the other lists that had been supplied by sample institutions. Online resources were approved for abstraction based on the completeness and inclusiveness of the information provided.

## A. 4 Faculty Sample Selection

The sample of faculty was selected using stratified systematic sampling within cells indexed by institutional and faculty strata as summarized in tables A-9 and A-10. Table A-9 presents the complete list of institutional strata used for NSoFaS , and indicates their correspondence to the strata used for NSOPF. Moreover, institution eligibility rates from the prior administrations of NSOPF were available only at a different level of aggregation (sector), a listing of which is provided in table A-11. Table A-12 provides a summary of faculty counts by NSoFaS institutional and NSOPF faculty strata, which were used for sample allocation based on the Winter:02 IPEDS. Stratum counts that are zero correspond to those that are specific to NPSAS:04.

Table A-9. NSoFaS institutional sampling strata: 2004

| NSoFaS institution strata | Institution type | NSOPF strata |
| :--- | :--- | :--- |
| 1 | Public less than 2-year | NPSAS only |
| 2 | Public 2-year associate's | 4 |
| 3 | Public 2-year other - degree-granting | 4 |
| 4 | Public 2-year other - NPSAS only | NPSAS only |
| 5 | Public 4-year master's | 2 |
| 6 | Public 4-year bachelor's | 3 |
| 7 | Public 4-year non-doctoral other | 3,5 |
| 8 | Public 4-year doctoral | 1 |
| 9 | Public 4-year doctoral other | 2 |
| 10 | Public 4-year NPSAS only | NPSAS only |
| 11 | Private not-for-profit less-than-4-year associate's | 9 |
| 12 | Private not-for-profit less-than-4-year other - degree-granting | 9 |
| 13 | Private not-for-profit less-than-4-year other - NPSAS only | NPSAS only |
| 14 | Private not-for-profit 4-year master's | 7 |
| 15 | Private not-for-profit 4-year bachelor's | 8 |
| 16 | Private not-for-profit 4-year other | $8,9,10$ |
| 17 | Private not-for-profit 4-year doctoral | 6 |
| 18 | Private not-for-profit 4-year doctoral master's | 7 |
| 19 | Private not-for-profit 4-year doctoral other | $7,8,10$ |
| 20 | Private not-for-profit 4-year NPSAS only | NPSAS only |
| 21 | Private for-profit less-than-2-year | NPSAS only |
| 22 | Private for-profit 2-year or more | NPSAS only |
| 23 | CA Public 2-year | 4 |
| 24 | CA Public 4-year | $1,2,3,5$ |
| 25 | CA Private not-for-profit 4-year | $6,7,8,10$ |

See notes at end of table.

Table A-9. NSoFaS institutional sampling strata: 2004—Continued

| NSoFaS institution strata | Institution type | NSOPF strata |
| :--- | :--- | :--- |
| 26 | CT Public 2-year | 4 |
| 27 | CT Public 4-year | $1,2,3$ |
| 28 | CT Private not-for-profit 4-year | $6,7,8,9,10$ |
| 29 | DE Public 2-year | NPSAS only |
| 30 | DE Public 4-year | 1,2 |
| 31 | DE Private not-for-profit 4-year | $6,8,10$ |
| 32 | GA Public 2-year | 4 |
| 33 | GA Public 4-year | $1,2,3,4,5$ |
| 34 | GA Private not-for-profit 4-year | $6,7,8,10$ |
| 35 | IL Public 2-year | 4 |
| 36 | IL Public 4-year | 12 |
| 37 | IL Private not-for-profit 4-year | $6,7,8,10$ |
| 38 | IN Public 2-year | 4 |
| 39 | IN Public 4-year | $1,2,3$ |
| 40 | IN Private not-for-profit 4-year | $6,7,8,10$ |
| 41 | MN Public 2-year | 4 |
| 42 | MN Public 4-year | $1,2,3$ |
| 43 | MN Private not-for-profit 4-year | $6,7,8,9,10$ |
| 44 | NE Public 2-year | 4 |
| 45 | NE Public 4-year | 1,2 |
| 46 | NE Private not-for-profit 4-year | $7,8,10$ |
| 47 | NY Public 2-year | 4 |
| 48 | NY Public 4-year | $1,2,3,4,5$ |
| 49 | NY Private not-for-profit 4-year | $6,7,8,10$ |
| 50 | OR Public 2-year | 4 |
| 51 | OR Public 4-year | $1,2,5$ |
| 52 | OR Private not-for-profit 4-year | $7,8,10$ |
| 53 | TN Public 2-year | 4 |
| 54 | TN Public 4-year | 12 |
| 55 | TN Private not-for-profit 4-year | $6,7,8,9,10$ |
| 56 | TX Public 2-year | 4 |
| 57 | TX Public 4-year | $1,2,3$ |
| 58 | TX Private not-for-profit 4-year | $6,7,8,10$ |
| 50 | 509 |  |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table A-10. Faculty sampling strata within institution: 2004

| Faculty strata | Faculty type |
| :--- | :--- |
| 1 | Non-Hispanic Black faculty |
| 2 | Hispanic faculty |
| 3 | Asian faculty |
| 4 | Other full-time female faculty |
| 5 | Other full-time male faculty |
| 6 | Other part-time faculty |
| SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of |  |
| Postsecondary Faculty (NSOPF:04). |  |

Table A-11. NSOPF:99 institutional sectors used to obtain institution eligibility rates: 2004

| Sector | Sector type |
| :--- | :--- |
| 1 | Public 4-year |
| 2 | Private not-for-profit 4-year |
| 4 | Public 2-year |
| 5 | Private not-for-profit 2-year |
| SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of |  |
| Postsecondary Faculty (NSOPF:04). |  |

Table A-12. Faculty population counts, by NSoFaS institutional and NSOPF faculty strata: 2004

| NSoFaS institution strata | Total | Faculty strata |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 |
| Total | 1,074,011 | 62,578 | 37,821 | 73,196 | 198,179 | 317,958 | 384,279 |
| 1 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 2 | 177,454 | 13,073 | 5,798 | 3,858 | 27,718 | 27,872 | 99,135 |
| 3 | 4,469 | 223 | 39 | 58 | 682 | 828 | 2,639 |
| 4 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 5 | 41,689 | 2,991 | 829 | 1,833 | 10,249 | 15,007 | 10,780 |
| 6 | 12,931 | 899 | 238 | 532 | 2,712 | 4,236 | 4,314 |
| 7 | 6,594 | 172 | 94 | 331 | 1,395 | 2,180 | 2,422 |
| 8 | 176,687 | 7,267 | 4,604 | 18,439 | 38,125 | 75,878 | 32,374 |
| 9 | 25,245 | 3,321 | 465 | 1,388 | 5,305 | 8,261 | 6,505 |
| 10 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 11 | 3,838 | 251 | 106 | 124 | 859 | 938 | 1,560 |
| 12 | 700 | 49 | 33 | 25 | 119 | 103 | 371 |
| 13 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 14 | 24,427 | 790 | 401 | 876 | 4,874 | 6,435 | 11,051 |
| 15 | 35,501 | 2,351 | 554 | 1,167 | 7,981 | 12,173 | 11,275 |
| 16 | 12,773 | 722 | 180 | 400 | 1,917 | 3,200 | 6,354 |
| 17 | 59,170 | 3,103 | 1,743 | 5,787 | 10,421 | 23,490 | 14,626 |
| 18 | 23,282 | 1,237 | 563 | 758 | 4,760 | 6,850 | 9,114 |
| 19 | 8,023 | 572 | 145 | 341 | 1,476 | 2,929 | 2,560 |
| 20 | $\dagger$ | -† | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 21 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 22 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 23 | 56,878 | 3,195 | 5,282 | 4,651 | 7,262 | 7,852 | 28,636 |
| 24 | 49,043 | 1,496 | 3,037 | 8,965 | 7,716 | 14,454 | 13,375 |
| 25 | 25,263 | 1,038 | 1,111 | 2,584 | 3,724 | 7,370 | 9,436 |
| 26 | 2,791 | 163 | 68 | 59 | 436 | 394 | 1,671 |
| 27 | 3,955 | 164 | 121 | 270 | 830 | 1,551 | 1,019 |
| 28 | 7,350 | 215 | 186 | 828 | 1,447 | 2,777 | 1,897 |
| 29 | 965 | 87 | 16 | 21 | 159 | 106 | 576 |
| 30 | 1,250 | 117 | 16 | 112 | 340 | 641 | 24 |
| 31 | 768 | 63 | 9 | 12 | 76 | 91 | 517 |
| 32 | 8,627 | 1,817 | 97 | 129 | 1,394 | 1,241 | 3,949 |
| 33 | 11,110 | 991 | 171 | 801 | 2,798 | 4,361 | 1,988 |
| 34 | 6,582 | 1,253 | 148 | 476 | 1,264 | 2,396 | 1,045 |
| 35 | 15,787 | 1,187 | 420 | 453 | 1,886 | 2,090 | 9,751 |

See notes at end of table.
Table A-12. Faculty population counts, by NSoFaS institutional and NSOPF faculty strata: 2004-Continued

| NSoFaS |  | Faculty strata |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| institution strata | Total | 1 | 2 | 3 | 4 | 5 | 6 |
| 36 | 13,634 | 786 | 386 | 1,595 | 3,144 | 5,217 | 2,506 |
| 37 | 18,990 | 806 | 415 | 1,551 | 3,652 | 6,264 | 6,302 |
| 38 | 3,601 | 146 | 34 | 46 | 476 | 486 | 2,413 |
| 39 | 11,839 | 360 | 255 | 935 | 2,614 | 4,612 | 3,063 |
| 40 | 6,173 | 257 | 109 | 255 | 1,133 | 2,193 | 2,226 |
| 41 | 6,198 | 136 | 65 | 123 | 1,257 | 1,526 | 3,091 |
| 42 | 7,227 | 152 | 136 | 597 | 1,755 | 3,125 | 1,462 |
| 43 | 5,779 | 116 | 96 | 208 | 1,265 | 1,800 | 2,294 |
| 44 | 2,346 | 19 | 41 | 19 | 442 | 593 | 1,232 |
| 45 | 4,455 | 116 | 98 | 346 | 988 | 1,854 | 1,053 |
| 46 | 2,148 | 39 | 40 | 94 | 474 | 711 | 790 |
| 47 | 16,189 | 1,152 | 671 | 546 | 2,210 | 2,390 | 9,220 |
| 48 | 26,275 | 1,972 | 1,041 | 2,047 | 4,046 | 7,309 | 9,860 |
| 49 | 48,793 | 2,287 | 1,465 | 3,691 | 7,977 | 14,892 | 18,481 |
| 50 | 6,286 | 113 | 206 | 220 | 1,067 | 1,054 | 3,626 |
| 51 | 6,715 | 76 | 158 | 550 | 1,509 | 2,337 | 2,085 |
| 52 | 2,556 | 21 | 45 | 79 | 519 | 882 | 1,010 |
| 53 | 3,827 | 379 | 33 | 34 | 760 | 719 | 1,902 |
| 54 | 7,560 | 596 | 100 | 540 | 1,795 | 3,084 | 1,445 |
| 55 | 6,289 | 474 | 74 | 371 | 1,449 | 2,665 | 1,256 |
| 56 | 26,411 | 2,242 | 3,185 | 831 | 3,751 | 4,137 | 12,265 |
| 57 | 27,253 | 1,133 | 2,136 | 2,658 | 5,817 | 10,547 | 4,962 |
| 58 | 10,315 | 393 | 558 | 582 | 2,154 | 3,857 | 2,771 |

$\dagger$ Not applicable.
NOTE: Faculty strata are defined as $1=$ Non-Hispanic Black, $2=$ Hispanic, $3=$ Asian, $4=$ Other full-time female, $5=$ Other full-time male, $6=$ Other part-time. Blank strata are NPSAS-only and do not apply to NSOPF. NSoFaS $=$ 2004 National Study of Faculty and Students.
SOURCES: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04), U.S. Department of Education, National Center for Education Statistics, 2002 Integrated Postsecondary Education Data System (IPEDS).

## A.4.1 Determining Initial Faculty Sample Sizes and Sample Allocation

This section provides an overview of the faculty sample selection procedure, which includes technical details of the cost/variance optimization process for selection of the initial sample sizes as well as specifications for calculation of initial and final (adjusted) sampling rates. A customized cost/variance optimization program was developed to determine the desired allocation of respondents to institution-by-person strata, which aimed to secure at least the same level of precision for key estimates as those achieved during the previous administration of the survey. This optimization process consisted of the following steps:
a. establishing precision requirements for key estimates;
b. constructing a cost model specific to the structure of the sample;
c. developing a relative variance model; and
d. determining the optimum sample allocation.

## A.4.2 Precision Requirements for Key Estimates

The precision goals were to secure national-level survey estimates with precisions comparable to or better than those of NSOPF: 99 for the overall faculty population. For this purpose, the following two publications were reviewed to establish 268 key national-level estimates:

- Background Characteristics, Work Activities, and Compensation of Faculty and Instructional Staff in Postsecondary Institutions: Fall 1998 (NCES 2001-152) (Zimbler 2001); and
- Salary, Promotion, and Tenure Status of Minority and Women Faculty in U.S. Colleges and Universities (NCES 2000-173). (Nettles, Perna, and Bradburn 2000).


## A.4.3 Cost/Variance Optimization

As mentioned earlier, a customized cost/variance optimization program was developed to determine the desired allocation of respondents to institution-by-person strata. The cost model necessary to support the cost/variance optimization process was the following:

$$
C=C_{0}+\sum_{h=1}^{240} n_{h} C_{h}+\sum_{h=1}^{240} \sum_{k=1}^{14} n_{h} n_{h k} C_{h k}
$$

where $C$ represents the total cost of the NSoFaS, $C_{0}$ represents the "fixed costs" that do not depend on the number of sample institutions or person, $C_{h}$ represents the variable cost per participating institution in stratum $h, C_{h k}$ represents the variable cost per respondent in person stratum $h$ within institution stratum $k, n_{h}$ represents the number of participating institutions selected from stratum $h$, and $n_{h k}$ represents the number of responding persons selected from the given stratum.

Only the components of variable cost, $C_{h}$ and $C_{h k}$, had to be estimated to support the cost/variance optimization. For this purpose, they were estimated using the spreadsheet developed for the study budget. The cost per participating institution was then estimated by holding the numbers of responding persons constant while varying the numbers of participating institutions. Likewise, the variable cost per participant was estimated by holding the number of participating institutions constant while varying the number of participating persons.

## A.4.4 Relative Variance Model

The following model was used to represent the relative variance of estimates in different domains:

$$
\begin{aligned}
\operatorname{Re} l \text { Var }_{g d} & =\left(\frac{\sigma_{2 g d}^{2}}{\sigma_{1 g d}^{2}+\sigma_{2 g d}^{2}+\sigma_{3 g d}^{2}+\sigma_{4 g d}^{2}} \times C V_{g d}^{2}\right) \times\left(1+C V_{m d}^{2}\right) \sum_{h}\left[\left(\frac{1}{n_{h} \times r_{h}}-\frac{1}{N_{h}}\right) \times \sum_{k}\left(W_{d h k}^{2} \times U W E_{h k}\right)\right] \\
& +\left(\frac{\sigma_{4 g d}^{2}}{\sigma_{1 g d}^{2}+\sigma_{2 g d}^{2}+\sigma_{3 g d}^{2}+\sigma_{4 g d}^{2}} \times C V_{g d}^{2}\right) \sum_{h} \sum_{k}\left(\frac{W_{d h k}^{2} \times U W E_{h k}}{\alpha_{d h k} \times n_{h k}}\right)
\end{aligned}
$$

where the parameters of this model were defined for each institution stratum $h$ and person stratum $k$ as follows:

- $W_{d h k}=$ proportion of domain $d$ members who belong to stratum $(h, k)$
- $U W E_{h k}=$ unequal weighting effect within stratum $(h, k)$
- $\sigma_{1 g d}^{2}=$ the variance between institution strata
- $\sigma_{2 g d}^{2}=$ the variance between institutions within strata
- $\sigma_{3 g d}^{2}=$ the variance between strata
- $\sigma_{4 g d}^{2}=$ the variance between participants within person strata
- $C V_{g d}=\frac{\sigma_{T_{g d} d}}{\bar{y}_{g d}}=$ coefficient of variation among observations
- $r_{h}=$ stratum $h$ institution response rate
- $\quad C V_{m d}=$ coefficient of variation of cluster sizes $(m)$ among domain $d$ members
- $\alpha_{d h k}=$ proportion of stratum $(h, k)$ members who belong to domain $d$

The proportion of domain $d$ members who belong to stratum $(h, k), W_{d h k}$, and the proportion of stratum $(h, k)$ members who belong to domain $d, \alpha_{d h}$, were estimated using prior survey data. The components of variance ( $\sigma_{1 g d}^{2}, \sigma_{2 g d}^{2}, \sigma_{3 g d}^{2}$, and $\sigma_{4 g d}^{2}$ ) were computed using the method of moments procedures in SAS Proc Nested, which resulted in some negative estimates. Unequal weighting effects, $U W E_{h k}$, were computed based on the statistical analysis weights. Since these values were highly variable, it was decided that they were not reliable estimates of the unequal weighting effects. Consequently, all the UWEs were set to a constant value of 1.05 . Finally, the coefficient of variation, $C V_{m d}$, of cluster sizes was computed for the members of each analysis domain using the same prior survey data.

## A.4.5 Optimum Sample Allocation

The technique developed by Chromy (1987) was used to determine the sample allocation for each institution and person strata. This technique aimed to satisfy all precision constraints while minimizing the cost and relative variance models discussed earlier. The initial results from the optimization process were discussed with the National Center for Education Statistics (NCES) and the Technical Review Panel (TPR) in August 2002 before further refinements were applied to the resulting samples.

The results of this initial sample optimization exercise were used as the basis for the sample of 1,080 institutions for NSOPF:04. As in previous cycles of NSOPF, all institutions with a Carnegie classification as public doctoral or private not-for-profit doctoral institutions were selected with certainty. After selecting the sample institutions, further refinements were made to determine which binding constraints could be relaxed in the optimization procedure. As precision constraints were iteratively relaxed during the optimization process, the sample size distributions were constrained to achieve approximately the institution- and person-level marginal distributions that were requested by NCES following the August 2002 TRP meeting. The optimization process was rerun conditional on the sample of institutions that had already been selected to determine the optimum allocation of the faculty sample sizes to these institutions. The results of this conditional optimization were used to set the final faculty sample rates, as discussed below. Note that the corresponding respondent counts are provided in tables 4 and 14 in the main body of this methodology report.

Table A-13. Target number of NSOPF:04 respondents, by institution and faculty strata: 2004

| Institution stratum | Respondents | Faculty stratum | Respondents |
| :--- | ---: | :--- | ---: |
| Total | 24,500 | Total | 24,500 |
|  |  |  |  |
| Public doctor's | 6,200 | Non-Hispanic Black | 1,600 |
| Public master's | 2,700 | Hispanic | 1,300 |
| Public bachelor's | 600 | Asian | 900 |
| Public associate's | 7,500 | Other full-time female | 4,600 |
| Public other | 500 | Other full-time male | 8,300 |
| Private not-for-profit doctor's | 2,600 | Other part-time | 7,800 |
| Private not-for-profit master's | 1,900 |  |  |
| Private not-for-profit bachelor's | 1,700 |  |  |
| Private not-for-profit associate's | 100 |  |  |
| Private not-for-profit other | 700 |  |  |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

## A. 5 Sampling Rates

Initial population-level sampling rates were calculated and adjusted in several steps to obtain the final institution-level sampling rates, a brief outline of which is listed below.
a. Calculation of the initial population-level sampling rates
b. Calculation of the conditional sampling rates, given the sample institutions
c. Adjustment of the sampling rates for expected rates of faculty ineligibility and nonresponse
d. Adjustment of the sampling rates for expected rates of institution ineligibility and nonresponse
e. Adjustment of the sampling rates (iteratively) to ensure that

- no cell will have a sampling rate larger than 1 ;
- minimum sample size for each institution will be 10 ; and
- maximum sample size for each institution will be controlled.

In order to facilitate communication of computational details, the following notations will be used throughout this section.

$$
\begin{array}{ll}
-\quad i \in[1,58] & \text { indexes institutional strata (STRAT58); } \\
-j \in[1,6] & \text { indexes faculty strata (FACSTR); } \\
-\quad k \in[1,4] & \text { indexes institutional sector (SECTOR); } \\
-\quad N_{i j+} & \begin{array}{l}
\text { total number of faculty members in the } i-j^{\text {th }} \text { institution-faculty } \\
\text { stratum; and }
\end{array} \\
-n_{i j+} & \begin{array}{l}
\text { required sample of faculty respondents in the } i-j^{\text {th }} \text { institution- } \\
\text { faculty stratum. }
\end{array}
\end{array}
$$

## A.5.1 Calculation of the Initial Sampling rates

The initial sampling, which are calculated as the ratio of the required sample sizes and population counts within cells indexed by the institutional and faculty strata. That is,

$$
S R_{i j}^{0}==\frac{n_{i j+}}{N_{i j+}},\left\{\begin{array}{l}
i \in[1,58] \\
j \in[1,6]
\end{array}\right.
$$

These rates represent the faculty sampling rates that would be used if a census was to be conducted of all institutions, with all institutions being eligible and participating in the study.

## A.5.2 Calculation of the Conditional Sampling Rates

Faculty sampling rates were computed for the institutions in the sample, conditional on the institutions that have been selected (as if they will all be participants). The conditional sampling rate was calculated for each sample institution as the product of its initial sampling rate and institution sampling weight. That is, the initial conditional sampling rate for the $j^{\text {th }}$ faculty stratum in the $i^{\text {th }}$ institutional stratum, given the selection of the $t^{\text {th }}$ institution was given by:

$$
C R_{i j \mid l}^{0}=\frac{S R_{i j}^{0}}{\pi_{i l}}
$$

Here, $\pi_{i l}$ represents the probability of selection of the $l^{\text {th }}$ sample institution in the $i^{\text {th }}$ institutional stratum.

## A.5.3 Adjustment of Conditional Sampling Rates for Expected Rates of Faculty Ineligibility and Nonresponse

Initial sampling rates were adjusted to account for anticipated faculty ineligibility and nonresponse. Since the only reliable information for this purpose was available at the institution sector level based on results from NSOPF:99, this adjustment was carried out at sector level. The needed rates for this adjustment are summarized in Table A-14.

Table A-14. Faculty level adjustment rates, by institutional sector: 2004

| Sector | Percent eligibility rate | Percent response rate |
| :---: | :---: | :---: |
| Total | 95 | 73 |
| Public 2-year | 95 | 70 |
| Public 4-year | 95 | 75 |
| Private not-for-profit 2-year | 95 | 69 |
| Private not-for-profit 4-year | 95 | 70 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

With $F E_{k}$ and $F R_{k}$ representing the expected rates of faculty level eligibility and response for the $k^{\text {th }}$ sector, respectively, the adjusted sampling rate to account for faculty level attrition for the $j^{\text {th }}$ faculty stratum for all institutions in the $k^{\text {th }}$ institutional sector is given by:

$$
C R_{i j l}^{1}=C R_{i j l}^{0} \times \frac{1}{F E_{k}} \times \frac{1}{F R_{k}}
$$

Because of the above adjustment and because some sample institutions were expected to be ineligible, application of the resulting sampling rates to the frame counts for the eligible sample institutions could produce sample sizes that are far from the proposed total sample of 35,671 faculty members. Consequently, the adjusted sampling rates were ratio-adjusted to the desired total in two steps. First, the revised sample size for the $j^{\text {th }}$ faculty stratum in the $i^{\text {th }}$ institutional stratum was computed as follows, where $N_{i j l}$ represents the $l^{\text {th }}$ institution in the $(i-j)^{\text {th }}$ stratum:

$$
n_{i j+}^{1}=n_{i j+} \times \frac{35,671}{\sum_{i j l}\left(N_{i j l} \times C R_{i j l}^{1}\right)},\left\{\begin{array}{l}
i \in[1,58] \\
j \in[1,6]
\end{array}\right.
$$

Next, verifying that $\sum_{i j l} N_{i j l} x C R_{i j l}^{2}=35,671$, the ratio-adjusted sampling rates were calculated for the eligible sample institutions as:

$$
C R_{i j l}^{2}=\frac{n_{i j+}^{1}}{N_{i j+}} \times \frac{1}{F E_{k}} \times \frac{1}{F R_{k}} \times \frac{1}{\pi_{i l}}
$$

## A.5.4 Adjustment of Sampling Rates for Expected Rates of Institution Ineligibility and Nonresponse

The above rates were further adjusted to account for anticipated institution level ineligibility and nonresponse, as summarized in table A-15. With $I E_{k}$ and $I R_{k}$ representing the expected rates of institution level eligibility and response for the $k^{\text {th }}$ sector, the revised rates were calculated as:

$$
C R_{i j l l}^{3}=C R_{i j l}^{2} \times \frac{1}{I E_{k}} \times \frac{1}{I R_{k}}
$$

These calculations were performed on the data file of all eligible sample institutions among the final sample of 1,080 institutions. The eligibility rate, $I E_{k}$, was set to 1.00 for all institutions that were known to be eligible. The eligibility was known for all institutions.

Table A-15. Institution level adjustment rates by institutional sector (rates based on the revised RTI proposal for the 2004 National Study of Faculty and Students): 2004

| Sector | Percent eligibility rate | Percent response rate |
| :---: | ---: | ---: |
| Total | 99 | 87 |
| Public 2-year | 99 | 84 |
| Public 4-year | 100 | 90 |
| Private not-for-profit 2-year | 95 | 95 |
| Private not-for-profit 4-year | 100 | 83 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Again, because of the above adjustment, the resulting total sample of faculty members was larger than the proposed sample of 35,671 . The resulting total count for each institutionfaculty stratum was calculated to be used for further adjustments, by:

$$
n_{i j+}^{*}=\sum_{l}\left(N_{i j l} \times C R_{i j l}^{3}\right)
$$

## A.5.5 Final Adjustment of Sampling Rates

The final sampling rates must satisfy a number of design requirements before they could be used for selection of sample faculty members. Specifically, all sampling rates should be bound by 1 while ensuring that the resulting sample sizes are between 10 and a reasonable maximum for each sample institution. Achieving these objectives, starting with the above initial conditional sampling rates, entailed an iterative process as described next.

- Calculate the revised sample size for the $j^{\text {th }}$ faculty stratum of the $l^{t h}$ sample institution in the $i^{\text {th }}$ institutional stratum by:
- Let $\operatorname{Max}=1,000$
$-\quad$ Let $n_{i j l}^{1}=N_{i j l} \times C R_{i j l}^{3}$
- If $n_{i j l}^{1}>N_{i j l}$ Then $n_{i j l}^{1}=N_{i j l}$
- If $n_{i+l}^{1}=\sum_{j} n_{i j l}^{1}>\operatorname{Max}$ Then $n_{i j l}^{1}=n_{i j l}^{1} \times \frac{M a x}{n_{i+l}^{1}}$
- If $n_{i+l}^{1}<10$ Then $n_{i j l}^{1}=n_{i j l}^{1} \times \frac{10}{n_{i+l}^{1}}$
- If $\sum_{l} n_{i j l}^{1} \neq n_{i j+}^{*}$ Then $n_{i j l}^{1}=n_{i j l}^{1} \times \frac{n_{i j+}^{*}}{n_{i j+}^{1}}$
- Review the distribution of the total sample size for each institution, $n_{i+l}$, to detect potential outliers. Subsequently, the value of Max will be set to a new limit, which is determined after implementation of the above step.
- Next, the subsequent conditional sampling rates should be calculated as the ratio of the latest sample sizes and their corresponding population counts. That is,

$$
C R_{i j l l}^{4}=\frac{n_{i j l}^{1}}{N_{i j l}}
$$

- Calculate the next revised sample size for the $j^{\text {th }}$ faculty stratum of the $l^{\text {th }}$ sample institution in the $i^{\text {th }}$ institutional stratum by:
$-\quad$ Let $n_{i j l}^{2}=N_{i j l} \times C R_{i j l}^{4}$
- If $n_{i j l}^{2}>N_{i j l}$ Then $n_{i j l}^{2}=N_{i j l}$
- If $n_{i+l}^{2}=\sum_{j} n_{i j l}^{2}>\operatorname{Max}$ Then $n_{i j l}^{2}=n_{i j l}^{2} \times \frac{M a x}{n_{i+l}^{2}}$
- If $n_{i+l}^{2}<10$ Then $n_{i j l}^{2}=n_{i j l}^{2} \times \frac{10}{n_{i+l}^{2}}$
- If $\sum_{l} n_{i j l}^{2} \neq n_{i j+}^{*}$ Then $n_{i j l}^{2}=n_{i j l}^{2} \times \frac{n_{i j+}^{*}}{n_{i j+}^{2}}$

The above steps were repeated until no more adjustments were needed. That is, until all sampling rates were less than or equal to one, no institution sample size was less than 10 or greater than the established maximum number, and the sample size was close to what was expected for every institution-faculty stratum. At this point, the final sampling rates were calculated by:

$$
C R_{i j l l}^{f}=\frac{n_{i j l}^{f}}{N_{i j l}}
$$

## A. 6 Faculty Sample Selection

Faculty members were sampled as faculty lists were received for participating institutions. Prior to selecting the faculty sample for a given institution, expected sample sizes
for each faculty stratum were calculated using the institution-specific faculty list counts and sampling rates. Now that the actual list counts were available these sampling rates were then modified, as necessary, for the reasons given below.

- Rates were increased across all faculty strata to ensure that at least ten faculty members were selected from each institution, if possible.
- Rates were increased within faculty strata to guarantee that at least one faculty member was selected per stratum, when the calculated rates called for selection of less than one faculty, if possible.
- The sample yield was monitored throughout the months during which faculty lists were received, and the faculty sampling rates were adjusted periodically for institutions for which sample selection had not yet been performed to ensure that the desired faculty sample sizes were achieved.

Stratified systematic sampling was used to select faculty members from the faculty lists. Using PROC SURVEYSELECT in SAS, lists were sorted in a serpentine fashion by the academic field, race/ethnicity, gender, and employment status of the faculty members, and individuals were systematically selected within faculty strata.

These procedures had to be modified for lists that were received on hard copy. Quite often, these paper lists contained little information about the faculty members' race/ethnicity, gender, and employment status. When this information was not available, and therefore faculty strata could not be identified, a systematic sample of faculty was selected using the overall sampling rate for the institution. If this personal data was provided, however, a systematic sample was selected using the largest stratum-specific sampling rate. This initial sample (subframe) was then keyed to create an electronic file to avoid data entry for the entire list. Subsequently, however, extra faculty members were subsampled out using PROC SURVEYSELECT to achieve the needed allocation of faculty from the given institution.

After the sample of faculty had been selected for an institution, the available information of the sample faculty members, including name, academic field, institution, race/ethnicity, and residence, was compared to that of faculty who had already been selected from other institutions. When duplicates were detected, the duplicate was eliminated from the sample of the current institution so that no faculty member would be included in the sample twice.

Once the de-duplication process was complete and the final sample file was created, the final step in sample selection was to add the institution's final sample file to the master dataset. The master dataset contained all sampled faculty members and their relevant sampling information.

## A. 7 Appendix A References

Chromy, J.R. (1987). Design Optimization with Multiple Objectives. Proceedings of the American Statistical Association Section on Social Statistics 194-199.

Kojaku, L. and Nuñez, A. (1998). Descriptive Summary of 1995-96 Beginning Postsecondary Students, With Profiles of Students Entering 2- and 4-Year Institutions (NCES 1999-030). U.S. Department of Education, National Center for Education Statistics. Washington DC: U.S. Government Printing Office.

Nettles, M.T., Perna, L.W., and Bradburn, E.M. (2000). Salary, Promotion, and Tenure Status of Minority and Women Faculty in U.S. Colleges and Universities (NCES 2000-173). U.S. Department of Education, National Center for Education Statistics. Washington DC: U.S. Government Printing Office.
U.S. Department of Education, National Center for Education Statistics (2001). National Postsecondary Student Aid Study: Student Financial Aid Estimates for 1999-2000 (NCES 2001-209). Washington, DC: U.S. Government Printing Office.

Zimbler, L.J. (2001). Background Characteristics, Work Activities, and Compensation of Faculty and Instructional Staff in Postsecondary Institutions: Fall 1998 (NCES 2001-152).
Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Appendix A. Sampling Details

## Appendix B Technical Review Panel

## National Study of Postsecondary Faculty (NSOPF:04) Technical Review Panel

Eugene Anderson
Research Associate
American Council on Education
Center for Policy Analysis \&
Office of Minorities in Higher Education
One Dupont Circle NW
Washington, DC 20036-1193
Telephone: (202) 939-9393
Fax: (202) 785-2990
E-mail: eugene anderson@ace.nche.edu

Roger Baldwin
Professor
Michigan State University
429 Erickson Hall
East Lansing, MI 48824
Telephone: (517) 355-6452
Fax: (517) 353-6393
E-mail: rbaldwin@msu.edu

Ernst Benjamin
Senior Consultant
American Association of University Professors
1012 14 ${ }^{\text {th }}$ Street NW
Suite 500
Washington, DC 20005-3465
Telephone: (202) 737-5900
E-mail: j1260@earthlink.net

May Chen
Assistant Vice Chancellor
Community College of Baltimore County
800 South Rolling Road
Baltimore, MD 21228-5317
Telephone: (410) 869-1135
Fax: (410) 869-1265
E-mail: mchen@ccbcmd.edu

Peggye Cohen
Assistant VP for Institutional Research
George Washington University
2122 I Street NW
Suite 809
Washington, DC 20052
Telephone: (202) 994-6509
Fax: (202) 994-0709
E-mail: peggye@gwu.edu

Valerie Conley
Assistant Professor
Ohio University
Department of Counseling and Higher Education
McCracken Hall 388
Athens, OH 45701
Telephone: (740) 593-9426
Fax: (740) 593-0477
E-mail: conleyv@ohio.edu

## John Curtis

Director of Research
American Association of University Professors
$101214^{\text {th }}$ Street NW
Suite 500
Washington, DC 20005-3465
Telephone: (202) 737-5900 Ext. 3049
Fax: (202) 737-5526
E-mail: jcurtis@aaup.org

Eric Dey
Associate Professor
University of Michigan
610 East University
2117 School of Education Building
Ann Arbor, MI 48109-1259
Telephone: (734) 647-1651
Fax: (734) 764-2510
E-mail: $\underline{\text { dey@umich.edu }}$

Elaine El-Khawas
Professor
George Washington University
Dept. of Educational Leadership
2134 G Street NW
Washington, DC 20052
Telephone: (202) 994-2196
E-mail: elkhawas@gwu.edu

James Fairweather
Professor
Michigan State University
416 Erickson Hall
East Lansing, MI 48824
Telephone: (517) 353-3387
Fax: (517) 353-6393
E-mail: fairwea4@msu.edu

Martin Finkelstein
Professor
Seton Hall University
Department of Educational Leadership, Management and Policy (ELMP)
418 Kozlowski Hall
South Orange, NJ 07079
Telephone: (973) 275-2056
Fax: (201) 761-9758
E-mail: finkelma@shu.edu

Jon Fuller
Senior Fellow
National Association of Independent Colleges and Universities
4 Brian Drive
Carlisle, PA 17013
Telephone: (717) 240-0462
Fax: (717) 240-0486
E-mail: jon@naicu.edu

Rachel Hendrickson
Coordinator of Higher Education Programs
National Education Association
$12016^{\text {th }}$ Street NW
Washington, DC 20036
Telephone: (202) 822-7115
Fax: (202) 822-7624
E-mail: Rhendrickso@nea.org

Frederick Jacobs
Professor
American University
School of Education
4400 Massachusetts Avenue NW
Washington, DC 20016-8030
Telephone: (202) 885-1187
Fax: (202) 885-2124
E-mail: fredj@american.edu

Jacqueline King
Director, Center for Policy Analysis
American Council on Education
One Dupont Circle NW
Suite 800
Washington, DC 20036
Telephone: (202) 939-9559
Fax: (202) 785-2990
E-mail: jacqueline king@ace.nche.edu

David Leslie
Chancellor
College of William and Mary
School of Education
324 Jones Hall
P.O. Box 8795

Williamsburg, VA 23187-8795
Telephone: (757) 221-2349
Fax: (757) 221-2988
E-mail: dwlesl@wm.edu

## National Study of Postsecondary Faculty (NSOPF:04) Technical Review Panel-Continued

Jennifer Lindholm
Associate Director CIRP
Higher Education Research Institute
UCLA/GSEIS
3005 Moore Hall
Box 951521
Los Angeles, CA 90095-1521
Telephone: (310) 825-8622
Fax: (310) 206-2228
E-mail: jlindhol@ucla.edu

## Alexander McCormick

Senior Scholar
The Carnegie Foundation
51 Vista Lane
Stanford, CA 94305
Telephone: (650) 566-5149
Fax: (650) 326-0278
E-mail: mccormick@carnegiefoundation.org

Mike Middaugh
Assistant VP Office of Institutional Research
University of Delaware
325 Hullihen Hall
Newark, DE 19716
Telephone: (302) 831-2021
Fax: (302) 831-8530
E-mail: middaugh@udel.edu

Michael Nettles
Executive Director
Educational Testing Service
Center for Policy Studies \& Research
Rosedale Road, R028, Mailstop 19-R
Princeton, NJ 08541
Telephone: (609) 734-1236
Fax: (609) 734-1755
E-mail: mnettles@ets.org

James Palmer
Professor
Illinois State University
Educational Administration and Foundations
Campus Box 5900
De Garmo Hall 341
Normal, IL 61790-5900
Telephone: (309) 438-2041
Fax: (309)438-8683
E-mail: jcpalmer@ilstu.edu

Kent Phillippe
Senior Research Associate
American Association of Community Colleges
One Dupont Circle NW
Suite 410
Washington, DC 20036
Telephone: (202) 728-0200 Ext. 222
Fax: (202) 833-2467
E-mail: kphillippe@aacc.nche.edu

Richard Richardson
Professor
New York University
239 Greene Street
Suite 300
New York, NY 10003-6674
Telephone: (212) 998-5640
Fax: (212) 995-4041
E-mail: richard.richardson@nyu.edu

Terrence Russell
Executive Director
Association for Institutional Research
Florida State University
222 Stone Building
600 West College Avenue
Tallahassee, FL 32306-4462
Telephone: (850) 644-4470
Fax: (850) 644-8824
E-mail: trussell@,mailer.fsu.edu

Jack Schuster
Professor
Claremont Graduate University
School of Educational Studies
Harper Hall 202
150 East $10^{\text {th }}$ Street
Claremont, CA 91711-6160
Telephone: (909) 607-3795
E-mail: jack.schuster@cgu.edu

## Craig Smith

Assistant Director
American Federation of Teachers
555 New Jersey Avenue NW
Washington, DC 20001
Telephone: (202) 879-4559
Fax: (202) 393-6386
E-mail: csmith@aft.org

## Peter Syverson

Vice President for Research
Council of Graduate Schools
Suite 430
One Dupont Circle NW
Washington, DC 20036
Telephone: (202) 223-3791
Fax: (202) 331-7157
E-mail: psyverson@cgs.nche.edu

Robert Toutkoushian
Associate Professor
Indiana University
Department of Educational Leadership and
Policy Studies
201 North Rose Ave
Education 4220
Bloomington, IN 47405
Telephone: (812) 856-8395
E-mail: rtoutkou@indiana.edu

Holly Zanville
Associate Vice Chancellor for Academic Affairs
University of Oregon Campus
Oregon State System of Higher Education
Susan Campbell Hall
P.O. Box 3175

Eugene, OR 97403-1075
Telephone: (541) 346-5726
Fax: (541) 346-5764
E-mail: holly zanville@ous.edu

## National Association of Student Financial Aid Administrators (NASFAA)

## Mary Ann O'Connor

## Project Director

National Association of Student Financial Aid
Administrators (NASFAA)
$112920^{\text {th }}$ Street NW
Suite 400
Washington, DC 20036
Telephone: (202) 785-0453
Fax: (202) 785-1487
E-mail: oconnorm@nasfaa.org

Kenneth Redd
Director of Research and Policy Analysis
National Association of Student Financial Aid
Administrators (NASFAA)
$112920^{\text {th }}$ Street NW
Suite 400
Washington, DC 20036-3453
Telephone: (202) 785-0453
Fax: (202) 785-1487
E-mail: reddk@nasfaa.org

\author{

## U.S. Department of Education/

 U.S. Government <br> \section*{Elizabeth Hoover} <br> Contract Specialist <br> U.S. Department of Education <br> $55012^{\text {th }}$ Street, SW <br> Room 7116 <br> Washington, DC 20202-4447 <br> Telephone: (203) 245-6166 <br> E-mail: elizabeth.hoover@ed.gov <br> \section*{Maggie Cahalan} <br> Team Leader, Secondary/Postsecondary Crosscutting Program <br> Policy and Program Studies Service, <br> U.S. Department of Education <br> 400 Maryland Avenue SW <br> Room 6W118 <br> Washington, DC 20202 <br> Telephone: (202) 401-1679 <br> Fax: (202) 401-5943 <br> E-mail: margaret.cahalan@ed.gov <br> C. Dennis Carroll <br> Associate Commissioner, Postsecondary Studies Division <br> National Center for Education Statistics, U.S. Department of Education 1990 K Street NW <br> Room 8107 <br> Washington, DC 20006-5652 <br> Telephone: (202) 502-7323 <br> Fax: (202) 502-7460 <br> E-mail: dennis.carroll@ed.gov}

Michael Cohen
Assistant Director for Survey Programs
Bureau of Transportation Statistics
$4007^{\text {th }}$ Street SW
Room 4432
Washington, DC 20590
Telephone: (202) 366-9949
Fax: (202) 366-3385
E-mail: michael.cohen@bts.gov
James Griffith
Program Director, Postsecondary Longitudinal and Sample Survey Studies-Postsecondary Studies Division
National Center for Education Statistics
U.S. Department of Education

1990 K Street NW
Room 8005
Washington, DC 20006
Telephone: (202) 502-7387
Fax: (202) 502-7460
E-mail: James.Griffith@ed.gov

Brian Harris-Kojetin
Senior Statistician
Statistical Programs and Standards
Office of Management and Budget
$72517^{\text {th }}$ Street NW
Room 10201
Washington, DC 20503
Telephone: (202) 395-3093
Fax: (202) 395-7245
E-mail: bharrisk@omb.eop.gov

Gregory Henschel
Program Analyst
National Institute on Postsecondary Education,
Libraries and Lifelong Learning
Institute of Education Sciences,
U.S. Department of Education

555 New Jersey Avenue NW
Suite 627
Washington, DC 20208-5531
Telephone: (202) 219-2082
Fax: (202) 501-3005
E-mail: gregory.henschel@ed.gov

Ricardo Hernandez
Lead Research Analyst
Office of Vocational and Adult Education
(OVAE), U.S. Department of Education
Organizational Structure and Offices
Potomac Center Plaza
$55012^{\text {th }}$ Street SW
Room 11137
Washington, DC 20065
Telephone: (202) 245-7818
Fax: (202) 205-8793
E-mail: Ricardo.Hernandez@ed.gov

Lisa Hudson
Education Statistician
National Center for Education Statistics,
U.S. Department of Education

1990 K Street NW
Room 9035
Washington, DC 20006
Telephone: (202) 502-7358
Fax: (202) 502-7490
E-mail: lisa.hudson@ed.gov

Tracy Hunt-White
Education Statistician
National Center for Education Statistics, U.S. Department of Education

1990 K Street NW
Room 8121
Washington, DC 20006
Telephone: (202) 502-7438
Fax: (202) 502-7460
E-mail: tracy.hunt-white@ed.gov

Paula Knepper
Senior Technical Advisor, Postsecondary Studies Division
National Center for Education Statistics,
U.S. Department of Education

1990 K Street NW
Room 8104
Washington, DC 20006-5652
Telephone: (202) 502-7367
Fax: (202) 502-7372
E-mail: paula.knepper@ed.gov

Roslyn Korb
Program Director
Postsecondary Cooperative Programs and
Analysis and Dissemination Program,
Postsecondary Studies Division,
National Center for Education Statistics
U.S. Department of Education, NCES

1990 K Street NW
Room 8132
Washington, DC 20006-5652
Telephone: (202) 502-7378
Fax: (202) 219-1529
E-mail: roslyn.korb@ed.gov

Edith McArthur
Demographer
National Center for Education Statistics,
U.S. Department of Education

1990 K Street NW
Room 9115
Washington, DC 20006-5652
Telephone: (202) 502-7393
Fax: (202) 502-7490
E-mail: edith.mcarthur@ed.gov

## National Study of Postsecondary Faculty (NSOPF:04) <br> Staff Contact List-Continued

Frank Shaw
Budget Analyst
National Endowment for the Humanities
Office of Planning and Budget
1100 Pennsylvania Avenue NW
Room 403
Washington, DC 20506
Telephone: (202) 606-8428
Fax: (202) 606-8619
E-mail: fshaw@neh.fed.us

Larry Suter
National Science Foundation
Research, Evaluation, and Communications
4201 Wilson Boulevard
Suite 855
Arlington, VA 22230
Telephone: (703) 306-1650
Fax: (703) 306-0434
E-mail: $\quad$ suter@nsf.gov

Susan Choy
Vice President
MPR Associates, Inc.
2150 Shattuck Avenue
Suite 800
Berkeley, CA 94704
Telephone: (510) 849-4942
Fax: (510) 849-0794
E-mail: $\quad$ schoy@mprinc.com

Gary Hoachlander
President
MPR Associates
2150 Shattuck Avenue
Suite 800
Berkeley, CA 94704
Telephone: (510) 849-4942
Fax: (510) 849-0794
E-mail: ghoachlander@mprinc.com

Linda Zimbler
Project Officer, NSOPF:04
National Center for Education Statistics,
U.S. Department of Education, 1990 K Street NW
Room 8123
Washington, DC 20006-5652
Telephone: (202) 502-7481
E-mail: linda.zimbler@ed.gov

## MPR Associates

Ellen Bradburn
Senior Research Associate
MPR Associates
2150 Shattuck Avenue
Suite 800
Berkeley, CA 94704
Telephone: (510) 849-4942
Fax: (510) 849-0794
E-mail: ebradburn@mprinc.com

## Pinkerton Computer Consultants, Inc.

Daniel Heffron
Statistician
Pinkerton Computer Consultants, Inc.
2750 Prosperity Avenue
Suite 300
Fairfax, VA 22031
Telephone: (703) 245-7388
Fax: (703) 245-7560
E-mail: heffrond@pcci.com

## RTI International

Janet Austin
Technical Staff Assistant/TRP Coordinator
RTI International
P.O. Box 12194

Research Triangle Park, NC 27709
Telephone: (919) 541-7101
Fax: (919) 541-7014
E-mail: jra@rti.org

Lisa Carley-Baxter
Survey Manager, NSOPF
RTI International
P.O. Box 12194

Research Triangle Park, NC 27709
Telephone: (919) 485-2616
Fax: (919) 541-1261
E-mail: lcbaxter@rti.org

James Chromy
Senior Statistical Advisor
RTI International
P.O. Box 12194

Research Triangle Park, NC 27709
Telephone: (919) 541-7019
Fax: (919) 541-6416
E-mail: $\quad$ rc@ $@ r t i . o r g$

Jayme Curry-Tucker
Education Analyst
RTI International
P.O. Box 12194

Research Triangle Park, NC 27709
Telephone: (919) 485-5592
Fax: (919) 541-7014
E-mail: jcurry@rti.org
T.R. Curtin

Instrumentation Task Leader, NSOPF
RTI International
P.O. Box 12194

Research Triangle Park, NC 27709
Telephone: (919) 541-6538
Fax: (919) 541-7014
E-mail: $\underline{\text { trc@rti.org }}$

Mansour Fahimi
Statistical Task Leader, NSOPF
RTI International
6110 Executive Boulevard
Suite 420
Rockville, MD 20852-3907
Telephone: (301) 230-4675
Fax: (301) 230-4647
E-mail: fahimi@rti.org

Patricia Green
Project Director, NSOPF
RTI International
203 North Wabash
Suite 1900
Chicago, IL 60601
Telephone: (312) 456-5260
Fax: (312) 456-5250
E-mail: pgreen@rti.org

Ruth Heuer<br>Methodology Report Task Leader, NSOPF<br>RTI International<br>P.O. Box 12194<br>Research Triangle Park, NC 27709<br>Telephone: (919) 541-6457<br>Fax: (919) 541-7014<br>E-mail: heuer@rti.org

Marjorie Hinsdale-Shouse
Data Collection Task Leader, NSOPF
RTI International
P.O. Box 12194

Research Triangle Park, NC 27709
Telephone: (919) 541-7368
Fax: (919) 541-7250
E-mail: mhs@rti.org

Donna Jewell
Deputy Project Director, NSOPF
RTI International
P.O. Box 12194

Research Triangle Park, NC 27709
Telephone: (919) 541-7266
Fax: (919) 541-6178
E-mail: dmj@rti.org

Brian Kuhr
Institutional Coordinator, NSoFaS
RTI International
203 North Wabash
Suite 1900
Chicago, IL 60601
Telephone: (312) 456-5263
Fax: (312) 456-5250
E-mail: bdk@rti.org

John Riccobono
Director, Education Surveys Division
RTI International
P.O. Box 12194

Research Triangle Park, NC 27709
Telephone: (919) 541-7006
Fax: (919) 541-7014
E-mail: jar@rti.org

Peter Siegel
Research Statistician
RTI International
P.O. Box 12194

Research Triangle Park, NC 27709
Telephone: (919) 541-6348
Fax: (919) 541-6416
E-mail: siegel@rti.org

Appendix B. Technical Review Panel

## Appendix C Facsimile Instruments

Institution Instrument.....................................................................................................C-3
Faculty Instrument
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## Institution Instrument



# NSOPF:04 Institution Instrument Full-Scale Study Facsimile 

## National Study of Postsecondary Faculty

## Introduction: Number of Faculty and Instructional Staff

Form: I1
Name: I1a
Label: Number full-time faculty, fall 2003, reported
Name: I1b
Label: Number part-time faculty, fall 2003

## Form Administered To:

All institutions

## StemWording:

As of November 1, 2003 (or during the Fall Term of the 2003-2004 academic year when your faculty lists are considered complete), how many full-time and part-time faculty and instructional staff were employed by [FILL INSTNAME]? Please report the total number of persons (i.e., headcount) rather than full-time equivalents (FTEs). (Please enter a number in each box; if none, enter "0".) NOTE: By faculty and instructional staff, we mean any faculty PLUS any other employees with instructional responsibilities, regardless of whether or not they have faculty status. Please choose "Help" for additional details.

* a. Full-time faculty and instructional staff.
* b. Part-time faculty and instructional staff.


## SECTION A: Full-Time Faculty and Instructional Staff

Form: I2
Name: I2a
Name: I2b
Name: I2c
Name: I2d
Name: I2e
Name: I2f
Name: I2g
Label: Full-time numbers: faculty, fall 2002
Label: Full-time numbers: changed from part to full time, 2002-03
Label: Full-time numbers: hired, 2002-03
Label: Full-time numbers: retired, 2002-03
Label: Full-time numbers: left for other reasons, 2002-03
Label: Full-time numbers: changed from full to part time, 2002-03
Label: Full-time numbers: faculty, fall 2003, calculated

## Form Administered To:

Institutions with full-time faculty and instructional staff

## StemWording:

Please provide the following information about changes in the number of full-time faculty and instructional staff between the 2002 and 2003 Fall Terms at this institution. (Please enter a number in each box; if none, enter "0".)

* a. Total at start of 2002-2003 academic year (on or about November 1, 2002)
* b. Number who changed from part-time to full-time status during 2002-2003 academic year (between Nov. 1, 2002 and Nov. 1, 2003)
* c. Number of new hires during 2002-2003 academic year
* d. Number retired between Nov. 1, 2002 and Nov. 1, 2003
e. Number who left for other reasons during 2002-2003 academic year
* f. Number changed from full-time to part-time status during the 2002-2003 academic year
* g. Total number as of Nov. 1, 2003 (or at the start of the 2003-04 academic year)

Form: I2A Label: Full-time numbers: inconsistent count reason

## Form Administered To:

Institutions with full-time faculty and instructional staff whose provided counts of full-time faculty and instructional staff are inconsistent ( $\mathrm{I} 1 \mathrm{a} \neq \mathrm{I} 2 \mathrm{~g}$ )

## StemWording:

You provided two different counts of the number of full-time faculty as of November 1, 2003: (I1a $=[$ FILL I1a $]$ and I2g = [FILL I2g]). Please back up and correct the number or provide an explanation of this discrepancy.

Reason for discrepancy: [ ]

Form: I3
Label: Full-time tenure: has tenure system

## Form Administered To:

Institutions with full-time faculty and instructional staff

## StemWording:

Does [FILL INSTNAME] have a tenure system for any full-time faculty and instructional staff?
1 = Yes, has a tenure system
2 = Currently no tenure system, but still have tenured staff
3 = No tenure system

Form: I4
Label: Full-time tenure: number considered for tenure, 2002-03

## Form Administered To:

Institutions with a tenure system for full-time faculty and instructional staff

## StemWording:

During the 2002-2003 academic year (i.e., Fall 2002 through Spring 2003), how many full-time faculty and instructional staff at your institution were considered for tenure?

```
* (Please enter a number in the box; if none, enter "0".)
```

Form: I5
Label: Full-time tenure: number granted tenure, 2002-03

## Form Administered To:

Institutions with a tenure system for full-time faculty and instructional staff who considered at least one faculty member for tenure during the 2002-2003 academic year

## StemWording:

Of the [FILL I4] faculty members considered for tenure during the 2002-2003 academic year, how many were granted tenure?

* (If none, enter "0".)

Form: I6
Label: Full-time tenure: maximum years on tenure track

## Form Administered To:

Institutions with a tenure system for full-time faculty and instructional staff

## StemWording:

For those on a tenure track but not tenured, what is the maximum number of years full-time faculty and instructional staff can be on a tenure track and not receive tenure at [FILL INSTNAME] ?
$0=$ No maximum
$1=1$
$2=2$
.
-
$15=15$
$16=$ More than 15 years

Form: I7
Name: I7a Label: Full-time tenure: changed tenure policy
Name: I7b Label: Full-time tenure: more stringent tenure standards
Name: I7c Label: Full-time tenure: downsized tenured faculty
Name: I7d Label: Full-time tenure: replaced tenured with fixed term
Name: I7e Label: Full-time tenure: offered early retirement

## Form Administered To:

Institutions with a tenure system for full-time faculty and instructional staff

## StemWording:

During the past five years, has your institution done any of the following?

* a. Changed policy for granting tenure to full-time faculty and instructional staff
* b. Made the standards more stringent for granting tenure to full-time faculty and instructional staff
* c. Reduced the number of tenured full-time faculty and instructional staff through downsizing
* d. Replaced some tenured or tenure-track full-time faculty and instructional staff with full-time faculty and instructional staff on fixed term contracts
* e. Offered early or phased retirement to any tenured full-time faculty or instructional staff
$0=$ No
$1=\mathrm{Yes}$

Form: I7SP
Name: I7e2 Label: Full-time tenure: number early retirees, last 5 years

## Form Administered To:

Institutions offering early or phased retirement to any tenured full-time faculty and instructional staff

## StemWording:

You said your institution offered early or phased retirement. How many full-time faculty and instructional staff took this during the past five years?

* (If none, enter "0")

Form: 18 Label: Full-time tenure: discontinued tenure system, last 5 years

## Form Administered To:

Institutions with no tenure system for full-time faculty and instructional staff

## StemWording:

Did [FILL INSTNAME] discontinue the tenure system within the last five years?
$0=$ No
$1=\mathrm{Yes}$

Form: I9 Label: Full-time faculty: positions sought to fill, fall 2003

## Form Administered To:

Institutions with full-time faculty and instructional staff

## StemWording:

How many full-time faculty and instructional staff positions was your institution seeking to fill for the 2003 Fall Term?

```
* (If none, enter "0")
```

Form: I10a
Name: I10aa
Label: Full-time benefit: medical insurance
Name: I10ab
Label: Full-time benefit: dental insurance
Name: I10ac
Label: Full-time benefit: disability insurance
Name: I10ad Label: Full-time benefit: life insurance
Name: I10ae Label: Full-time benefit: child care
Name: I10af
Label: Full-time benefit: retiree medical insurance
Name: I10ag
Label: Full-time benefit: cafeteria-style plan

## Form Administered To:

Institutions with full-time faculty and instructional staff

## StemWording:

Are the following employee benefits available to all, some, or none of the full-time faculty and instructional staff at [FILL INSTNAME]?

* a. Medical insurance or medical care
* b. Dental insurance or dental care
* c. Disability insurance program
* d. Life insurance
* e. Child care
* f. Medical insurance for retirees
* g. "Cafeteria-style" benefits plan (a plan under which staff can trade off some benefits for others, following guidelines established by the institution)
$-1=$ Don't know
1 = All
2 = Some
3 = None

Form: I10b
Name: I10ba
Label: Full-time benefit: medical insurance subsidized
Name: I10bb
Label: Full-time benefit: dental insurance subsidized
Name: I10bc
Label: Full-time benefit: disability insurance subsidized
Name: I10bd Label: Full-time benefit: life insurance subsidized
Name: I10be Label: Full-time benefit: child care subsidized
Name: I10bf Label: Full-time benefit: retiree medical insurance subsidized
Name: I10bg Label: Full-time benefit: cafeteria-style plan subsidized

## Form Administered To:

Institutions that provide at least one employee benefit to full-time faculty and instructional staff

## StemWording:

[IF ONE BENEFIT SELECTED ON FORM I10] Is this employee benefit subsidized by your institution? (Subsidized means paid for completely or in part by the institution.)
[ELSE IF MORE THAN ONE BENEFIT SECTED ON FORM I10A]Are these employee benefits subsidized by your institution? (Subsidized means paid for completely or in part by the institution.) [ENDIF]

* Medical insurance or medical care
* Dental insurance or dental care
* Disability insurance program
* Life insurance
* Child care
* Medical insurance for retirees
* Cafeteria-style benefits plan (a plan under which staff can trade off some benefits for others, following guidelines established by the institution)
$0=$ Not subsidized
1 = Fully/partially subsidized

Form: I11
Name: I11a
Name: I11b
Label: Full-time benefit: wellness program
Name: I11c
Label: Full-time benefit: spouse tuition remission
Name: I11d
Label: Full-time benefit: children tuition remission
Name: I11e
Label: Full-time benefit: housing
Name: I11f
Label: Full-time benefit: transportation/parking
Name: I11g
Label: Full-time benefit: paid maternity leave
Name: I11h
Label: Full-time benefit: paid paternity leave
Name: I11i

Label: Full-time benefit: paid sabbatical leave
Label: Full-time benefit: employee assistance program

## Form Administered To:

Institutions with full-time faculty and instructional staff

## StemWording:

Are the following employee benefits available to all, some, or none of the full-time faculty and instructional staff at [FILL INSTNAME]?

* a. Wellness program or health promotion
* b. Tuition remission/grants for spouse at this or other institutions
* c. Tuition remission/grants for children at this or other institutions
* d. Housing/mortgage; rent
* e. Transportation/parking
* f. Paid maternity leave
* g. Paid paternity leave
* h. Paid sabbatical leave
* i. Employee assistance program

$$
\begin{aligned}
-1 & =\text { Don't know } \\
1 & =\text { All } \\
2 & =\text { Some } \\
3 & =\text { None }
\end{aligned}
$$

Form: I12
Label: Full-time faculty: union representation
Form Administered To:
Institutions with full-time faculty and instructional staff

## StemWording:

Are any full-time faculty and instructional staff legally represented by a union (or other association) for purposes of collective bargaining with [FILL INSTNAME]?

```
O = No
1 = Yes
```

Form: I13
Name: I13a
Label: Full-time assessment: student evaluations
Name: I13b
Label: Full-time assessment: student test scores
Name: I13c
Label: Full-time assessment: student career placement
Name: I13d
Label: Full-time assessment: other student performance
Name: I13e
Label: Full-time assessment: department chair evaluations
Name: I13f
Label: Full-time assessment: dean evaluations
Name: I13g
Label: Full-time assessment: peer evaluations
Name: I13h
Label: Full-time assessment: self-evaluations

## Form Administered To:

Institutions with full-time faculty and instructional staff

## StemWording:

Are any of the following used as part of institution or department/school policy in assessing the teaching performance of full-time instructional faculty/staff at this institution?

Used for Teaching Assessment:

* a. Student evaluations
* b. Student test scores
* c. Student career placement
* d. Other measures of student performance
* e. Department/division chair evaluations
* f. Dean evaluations
* g. Peer evaluations
* h. Self-evaluations
-1 = Don't know
$0=$ No
$1=\mathrm{Yes}$


# SECTION B: Part-Time Faculty and Instructional Staff 

Form: I14 Label: Part-time benefit: retirement plan

## Form Administered To:

Institutions with part-time faculty and instructional staff

## StemWording:

In this next section, we will be asking you to consider [FILL INSTNAME]'s part-time faculty and instructional staff.
Are any retirement plans available to part-time faculty or instructional staff at your institution?
$0=$ Not available to any part-time faculty and instructional staff
$1=$ Yes, available to some part-time faculty and instructional staff
$2=$ Yes, available to most part-time faculty and instructional staff
3 = Yes, available to all part-time faculty and instructional staff
(Reminder: Part time refers to an individual's employment status at the institution rather than to the amount of instruction done by the individual.)

Form: I15a
Name: I15aa
Name: I15ab
Name: I15ac
Name: I15ad
Name: I15ae
Name: I15af
Name: I15ag

> Label: Part-time benefit: medical insurance
> Label: Part-time benefit: dental insurance
> Label: Part-time benefit: disability insurance
> Label: Part-time benefit: life insurance
> Label: Part-time benefit: child care
> Label: Part-time benefit: retiree medical insurance
> Label: Part-time benefit: cafeteria-style plan

## Form Administered To:

Institutions with part-time faculty and instructional staff

## StemWording:

Are the following employee benefits available to all, some, or none of the part-time faculty and instructional staff at [FILL INSTNAME]?

* a. Medical insurance or medical care
* b. Dental insurance or dental care
* c. Disability insurance program
* d. Life insurance
* e. Child care
* f. Medical insurance for retirees
* g. "Cafeteria-style" benefits plan (a plan under which staff can trade off some benefits for others, following guidelines established by the institution)
-1 = Don't know
1 = All
2 = Some
3 = None

Form: I15b
Name: I15ba
Label: Part-time benefit: medical insurance subsidized
Name: I15bb
Label: Part-time benefit: dental insurance subsidized
Name: I15bc
Label: Part-time benefit: disability insurance subsidized
Name: I15bd
Label: Part-time benefit: life insurance subsidized
Name: I15be
Label: Part-time benefit: child care subsidized
Name: I15bf Label: Part-time benefit: retiree medical insurance subsidized
Name: I15bg Label: Part-time benefit: cafeteria-style plan subsidized

## Form Administered To:

Institutions that provide at least one employee benefit to part-time faculty and instructional staff

## StemWording:

Still thinking only of part-time faculty,

## [IF ONE BENEFIT SELECTED ON FORM I15A]

is this employee benefit subsidized by your institution?

## [ELSE IF MORE THAN ONE BENEFIT SELECTED ON FORM I15A]

are these employee benefits subsidized by your institution?
[ENDIF]
(Subsidized means paid for completely or in part by the institution.)
*Medical insurance or medical care

* Dental insurance or dental care
* Disability insurance program
* Life insurance
* Child care
* Medical insurance for retirees
* "Cafeteria-style" benefits plan
$0=$ Not subsidized
1 = Fully/partially subsidized

Form: I16
Name: I16a
Label: Part-time benefit: wellness program
Name: I16b
Label: Part-time benefit: spouse tuition remission
Name: I16c
Label: Part-time benefit: children tuition remission
Name: I16d
Label: Part-time benefit: housing
Name: I16e
Label: Part-time benefit: transportation/parking
Name: I16f
Label: Part-time benefit: paid maternity leave
Name: I16g
Label: Part-time benefit: paid paternity leave
Name: I16h
Label: Part-time benefit: paid sabbatical leave
Name: I16i
Label: Part-time benefit: employee assistance program

## Form Administered To:

Institutions with part-time faculty and instructional staff

## StemWording:

Are the following employee benefits available to all, some, or none of the part-time faculty and instructional staff at [FILL INSTNAME]?

* a. Wellness program or health promotion
* b. Tuition remission/grants for spouse at this or other institutions
* c. Tuition remission/grants for children at this or other institutions
* d. Housing/mortgage; rent
* e. Transportation/parking
* f. Paid maternity leave
* g. Paid paternity leave
* h. Paid sabbatical leave
* i. Employee assistance program

$$
\begin{aligned}
-1 & =\text { Don't know } \\
1 & =\text { All } \\
2 & =\text { Some } \\
3 & =\text { None }
\end{aligned}
$$

Form: I17
Label: Part-time faculty: union representation

## Form Administered To:

Institutions with part-time faculty and instructional staff

## StemWording:

Are any part-time faculty and instructional staff legally represented by a union (or other association) for purposes of collective bargaining with [FILL INSTNAME]?
$0=$ No
$1=$ Yes

Form: I18
Name: I18a
Label: Part-time assessment: student evaluations
Name: I18b
Label: Part-time assessment: student test scores
Name: I18c
Label: Part-time assessment: student career placement
Name: I18d
Label: Part-time assessment: other student performance
Name: I18e
Label: Part-time assessment: department chair evaluations
Name: I18f
Label: Part-time assessment: dean evaluations
Name: I18g
Label: Part-time assessment: peer evaluations
Name: I18h
Label: Part-time assessment: self-evaluations

## Form Administered To:

Institutions with part-time faculty and instructional staff

## StemWording:

Are any of the following used as part of institution or department/school policy in assessing the teaching performance of part-time instructional faculty/staff at this institution?

## Used for Teaching Assessment:

* a. Student evaluations
* b. Student test scores
* c. Student career placement
* d. Other measures of student performance
* e. Department/division chair evaluations
* f. Dean evaluations
* g. Peer evaluations
* h. Self-evaluations

```
-1 = Don't know
    0 = No
    1 = Yes
```


## SECTION C: All Faculty and Instructional Staff

Form: I19
Name: I19a
Name: I19b
Name: I19c
Name: I19d
Label: Undergraduate instruction: percent full-time faculty
Label: Undergraduate instruction: percent part-time faculty
Label: Undergraduate instruction: percent teaching assistants
Label: Undergraduate instruction: percent other

## Form Administered To:

All institutions

## StemWording:

What percentage of undergraduate student credit hours were assigned to the following staff during the 2003 Fall term? Student credit hours are defined as the number of course credits or contact hours multiplied by the number of students enrolled.

* Percent of undergraduate instruction assigned to:
* a. Full-time faculty or instructional staff
* b. Part-time faculty or instructional staff, including adjuncts
* c. Teaching assistants such as graduate students who teach classes
* d. Others

Faculty Instrument


NSOPF:04 Faculty Instrument Full-Scale Study Facsimile

## SECTION A: Nature of Employment

Form: Q1 Label: Instructional duties, any

## Form Administered To:

All faculty and instructional staff

## StemWording:

During the 2003 Fall Term, did you have any instructional duties at [FILL INSTNAME], such as teaching students in one or more credit or noncredit courses, or advising or supervising students' academic activities?
(By instructional duties, we mean teaching credit or noncredit courses, advising or supervising students' academic activities, serving on undergraduate or graduate thesis or dissertation committees, supervising independent study or one-on-one instruction, etc., during the 2003 Fall Term.)
$0=$ No
$1=$ Yes

Form: Q2 Label: Instructional duties related to credit courses/activities

## Form Administered To:

Faculty with instructional duties, Fall 2003

## StemWording:

Did any of your instructional duties include teaching students in credit courses, or advising students or supervising students' academic activities for which they received credit during the 2003 Fall Term?
$0=\mathrm{No}$
$1=$ Yes

Form: Q3 Label: Faculty status

## Form Administered To:

All faculty and instructional staff

## StemWording:

During the 2003 Fall Term at [FILL INSTNAME], did you have faculty status as defined by that institution?

```
O = No
1 = Yes
```

Form: Q3X Label: Confirm study ineligibility

## Form Administered To:

Sample members without faculty status and with no instructional duties during the 2003 Fall term

## StemWording:

Just to confirm, you did not have faculty status and you did not teach any classes, or advise or supervise any students at [FILL INSTNAME] during the 2003 Fall Term?

1 = Agree: NOT faculty and DID NOT have any instructional duties
2 = Disagree: Had faculty status and/or had instructional duties

Form: Q4 Label: Principal activity

## Form Administered To:

All faculty and instructional staff

## StemWording:

Was your principal activity at [FILL INSTNAME] during the 2003 Fall Term. . .
(If you had equal responsibilities, please select one.)
$1=$ Teaching
2 = Research
3 = Public service
4 = Clinical service
$5=$ Administration (e.g., Dean, Chair, Director, etc.)
$6=$ On sabbatical from this institution
7 = Other activity (e.g., technical activity such as programmer or technician; other institutional activities such as library services; subsidized performer, artist-in-residence, etc.)

Form: Q5
Label: Employed full or part time at this institution

## Form Administered To:

All faculty and instructional staff

## StemWording:

During the 2003 Fall Term, did [FILL INSTNAME] consider you to be employed full time or part time?

1 = Full time
2 = Part time

Form: Q6
Label: Part-time employment is primary employment
Form Administered To:
Part-time faculty and instructional staff

## StemWording:

Do you consider your part-time position at [FILL INSTNAME] to be your primary employment?
$0=$ No
$1=\mathrm{Yes}$

Form: Q8
Label: Part-time but preferred full-time position

## Form Administered To:

Part-time faculty and instructional staff

## StemWording:

Would you have preferred a full-time position for the 2003 Fall Term at [FILL INSTNAME]?
$0=\mathrm{No}$
$1=\mathrm{Yes}$

Form: Q9 Label: Year began current job

## Form Administered To:

All faculty and instructional staff

## StemWording:

In what year did you start working at the job you held during the 2003 Fall Term at
[FILL INSTNAME]? Consider promotions in rank as part of the same job.

* Year:

Form: Q10
Label: Rank

## Form Administered To:

All faculty and instructional staff

## StemWording:

During the 2003 Fall Term, was your academic rank, title, or position at [FILL INSTNAME] . . .
(If no ranks are designated at your institution, select "Not applicable.")
$0=$ Not applicable (No formal ranks are designated at this institution)
1 = Professor
2 = Associate professor
3 = Assistant professor
4 = Instructor
5 = Lecturer
6 = Other title (e.g., Administrative, Adjunct, Emeritus, other)

Form: Q11
Label: Rank, year attained professor or associate professor
Form Administered To:
Faculty and instructional staff who hold the rank of professor or associate professor
StemWording:
In what year did you first achieve the rank of [FILL Q10] at any institution?

* Year:

Form: Q12
Label: Tenure status
Form Administered To:
All faculty and instructional staff

## StemWording:

During the 2003 Fall Term at [FILL INSTNAME], were you . . .
1 = Tenured
$2=$ On tenure track but not tenured
$3=$ Not on tenure track
$4=$ Not tenured because institution had no tenure system

Form: Q13 Label: Tenure, year attained at any postsecondary institution

## Form Administered To:

Tenured faculty and instructional staff

## StemWording:

In what year did you first achieve tenure at any postsecondary institution?

* Year:

Form: Q14 Label: Union status

## Form Administered To:

All faculty and instructional staff

## StemWording:

Are you a member of a union or other bargaining association that is legally recognized to represent the faculty at [FILL INSTNAME]?
$0=\mathrm{No}$
$1=$ Yes

## Form Administered To:

Faculty and instructional staff who are not members of a union

## StemWording:

Is that because a union is not available, you are not eligible to join, or you decided not to join?
-1 = Don't know
1 = Union is not available
2 = Union is available, but I am not eligible
$3=\mathrm{I}$ am eligible, but I decided not to join

Form: Q16VS
Label: Principal field of teaching-verbatim

## Form Administered To:

All faculty and instructional staff

## StemWording:

What is your principal field or discipline of teaching at [FILL INSTNAME]?
(Enter the name of the principal field or discipline in the box below. This name will be used to match against a list of academic fields, so please be specific and do not use abbreviations or acronyms. If you have no principal field, select the "Not applicable" box.)

* Name of principal field/discipline of teaching:
* Not applicable (No principal teaching field or discipline)

Form: Q16AC
Label: Principal field of teaching-autocode
Form Administered To:
Faculty and instructional staff who provided a verbatim field of teaching

## StemWording:

Please select the code below to confirm your field of teaching: [FILL Q16VS]
If you do not agree with this code, select "None of these codes" to manually code the field.

> Autocoding Explanation: Using the verbatim string of the respondent's teaching field (provided in Q16VS), item Q16AC matches the string to selected categories from the Classification of Instructional Programs (CIP), the federal statistical standard for classifying instructional program. CIP descriptions that match the verbatim string appear on the screen, and the respondent selects the code that best describes the teaching field. (See pages C-28 through C-30 for a list of codes and descriptions) Strings that do not match the CIP descriptions are routed to Q16CD for manual coding. The respondent can also modify the verbatim string and redo the match or manually code the teaching field in Q16CD. (Additional information on CIP can be found at http://nces.ed.gov/pubs2002/2002165.pdf.)

Form: Q16CD
Name: Q16CD2
Label: Principal field of teaching-general code
Name: Q16CD4
Label: Principal field of teaching-specific code

## Form Administered To:

Faculty and instructional staff who provided a verbatim field of teaching, but whose results were not autocoded

## StemWording:

Please help us to categorize "[FILL Q16VS]" using the drop-down list boxes.
(Coding Directions: Please select a general area and then the specific discipline within the general area. Use the arrow at the right side of the first dropdown box to display the general areas. Click to select the desired general area, and then select the desired specific discipline within the area from the second dropdown box.)

## * General Area:

$01=$ Agriculture/natural resources/related
$02=$ Architecture and related services
03 = Area/ethnic/cultural/gender studies
04 = Arts--visual and performing
$05=$ Biological and biomedical sciences
$06=$ Business/management/marketing/ related
07 = Communication/journalism/comm. Tech
$08=$ Computer/info sciences/support tech
$09=$ Construction trades
10 = Education
11 = Engineering technologies/technicians
12 = English language and literature/letters
13 = Family/consumer sciences, human sciences
14 = Foreign languages/literature/linguistics
$15=$ Health professions/clinical sciences
$16=$ Legal professions and studies

17 = Library science
$18=$ Mathematics and statistics
$19=$ Mechanical/repair technologies/techs
$20=$ Multi/interdisciplinary studies
$21=$ Parks/recreation/leisure/fitness studies
$22=$ Precision production
23 = Personal and culinary services
24 = Philosophy, religion \& theology
$25=$ Physical sciences
26 = Psychology
27 = Public administration/social services
28 = Science technologies/technicians
29 = Security \& protective services
$30=$ Social sciences (except psych) and history
31 = Transportation \& materials moving
$32=$ Other

## * Specific Discipline:

```
0101 = Agriculture and related sciences
0102 = Natural resources and conservation
0201 = Architecture and related services
0301 = Area/ethnic/cultural/gender studies
0401 = Art history, criticism & conservation
0402 = Design & applied arts
0403 = Drama/theatre arts and stagecraft
0404 = Fine and studio art
0405 = Music, general
0406 = Music history, literature, and theory
0 4 0 7 ~ = ~ V i s u a l ~ a n d ~ p e r f o r m i n g ~ a r t s , ~ o t h e r ~
0408 = Commercial and advertising art
0409 = Dance
0410 = Film/video and photographic arts
0501 = Biochem/biophysics/molecular biology
0502 = Botany/plant biology
0 5 0 3 ~ = ~ G e n e t i c s ~
0504 = Microbiological sciences & immunology
0505 = Physiology, pathology & related sciences
0506 = Zoology/animal biology
0507 = Biological & biomedical sciences, other
0601 = Accounting and related services
0 6 0 2 = \text { Business admin/management/operations}
0603 = Business operations support/assistance
0604 = Finance/financial management services
0605 = Human resources management and svcs
0606 = Marketing
0607 = Business/mgt/marketing/related, other
0608 = Management information systems/services
0701 = Communication/journalism/related pgms
0702 = Communication technologies/technicians
    and support services
0801 = Computer/info tech administration/mgmt
0802 = Computer programming
0803 = Computer science
0804 = Computer software and media applications
0805 = Computer systems analysis
0806 = Computer systems networking/telecomm
0 8 0 7 ~ = ~ D a t a ~ e n t r y / m i c r o c o m p u t e r ~ a p p l i c a t i o n s ~
0 8 0 8 = \text { Data processing}
0 8 0 9 ~ = ~ I n f o r m a t i o n ~ s c i e n c e / s t u d i e s ~
0810 = Computer/info sci/support svcs, other
0901 = Construction trades
1001 = Curriculum and instruction
1002 = Educational administration/supervision
1003 = Educational/instructional media design
1004 = Special education and teaching
1005 = Student counseling/personnel services
1006 = Education, other
1007 = Early childhood education and teaching
1008 = Elementary education and teaching
1009 = Secondary education and teaching
1010 = Adult and continuing education/teaching
1011 = Teacher ed: specific levels, other
1012 = Teacher ed: specific subject areas
1013 = Bilingual & multicultural education
1014 = Ed assessment
1015 = Higher education
1101 = Biomedical/medical engineering
```

1102 = Chemical engineering
1103 = Civil engineering
1104 = Computer engineering
$1105=$ Electrical/electronics/comms engineering
1106 = Engineering technologies/technicians
1107 = Environmental/environmental health eng
$1108=$ Mechanical engineering
1109 = Engineering, other
1201 = English language and literature/letters
1301 = Family/consumer sciences, human sciences
1401 = Foreign languages/literature/linguistics
1501 = Alternative/complementary medicine/sys
1502 = Chiropractic
1503 = Clinical/medical lab science/allied
1504 = Dental support services/allied
$1505=$ Dentistry
1506 = Health \& medical administrative services
$1507=$ Allied health and medical assisting services
1508 = Allied health diagnostic, intervention, treatment professions
$1509=$ Medicine, including psychiatry
$1510=$ Mental/social health services and allied
$1511=$ Nursing
$1512=$ Optometry
1513 = Osteopathic medicine/osteopathy
1514 = Pharmacy/pharmaceutical sciences/admin
1515 = Podiatric medicine/podiatry
1516 = Public health
1517 = Rehabilitation \& therapeutic professions
$1518=$ Veterinary medicine
$1519=$ Health /related clinical services, other
1601 = Law
$1602=$ Legal support services
1603 = Legal professions and studies, other
1701 = Library science
$1801=$ Mathematics
$1802=$ Statistics
1901 = Mechanical/repair technologies/techs
2001 = Multi/interdisciplinary studies
2101 = Parks, recreation and leisure studies
2102 = Health and physical education/fitness
2201 = Precision production
2301 = Culinary arts and related services
2302 = Personal and culinary services
2401 = Philosophy
2402 = Religion/religious studies
2403 = Theology and religious vocations
2501 = Astronomy \& astrophysics
2502 = Atmospheric sciences and meteorology
2503 = Chemistry
2504 = Geological \& earth sciences/geosciences
$2505=$ Physics
2506 = Physical sciences, other
2601 = Behavioral psychology
2601 = Behavioral psychology
2602 = Clinical psychology
2603 = Education/school psychology
2604 = Psychology, other
2701 = Public administration
(Specific discipline continued)

2702 = Social work
2703 = Public administration \& social svcs other
2801 = Science technologies/technicians
2901 = Corrections
2902 = Criminal justice
$2903=$ Fire protection
2904 = Police science
2905 = Security and protective services, other
3001 = Anthropology (except psychology)
3002 = Archeology
3003 = Criminology

3004 = Demography \& population studies
$3005=$ Economics
3006 = Geography \& cartography
3007 = History
3008 = International relations \& affairs
$3009=$ Political science and government
3010 = Sociology
3011 = Urban studies/affairs
3012 = Social sciences, other
3101 = Transportation \& materials moving
3201 = Other

## SECTION B: Academic/Professional Background

Form: Q17a1 Label: Highest degree

## Form Administered To:

All faculty and instructional staff

## StemWording:

What is the highest degree you have completed? Do not include honorary degrees.
(If you have none of the degrees or awards, select "Not applicable.")
$0=$ Not applicable (Do not hold a degree)
1 = Doctoral degree (Ph.D., Ed.D., etc.)
2 = First-professional degree (M.D., D.O., D.D.S. or D.M.D., LL.B., J.D., D.C.
or D.C.M., Pharm.D., Pod.D. or D.P., D.V.M., O.D., M.Div. or H.H.L. or B.D.)
3 = Master of Fine Arts, Master of Social Work (M.F.A., M.S.W.)
4 = Other master's degree (M.A., M.S., M.B.A, M.Ed., etc.)
$5=$ Bachelor's degree (B.A., A.B., B.S., etc.)
$6=$ Associate's degree or equivalent (A.A., A.S., etc.)
7 = Certificate or diploma for completion of undergraduate program (other than associate's or bachelor's)

Form: Q17a1b
Label: Hold PhD in addition to professional degree
Form Administered To:
Faculty and instructional staff whose highest degree is a first-professional degree

## StemWording:

Do you also hold a Ph.D. or other doctorate?
$0=\mathrm{No}$
$1=\mathrm{Yes}$

Form Administered To:
Faculty and instructional staff who hold a degree

## StemWording:

In what year did you receive your [FILL Q17A1 or Q17A1B]?
(If you have more than one degree at the same level, please select the most recent degree.)

* Year received:

Form: Q17a3VS Label: Highest degree field-verbatim

## Form Administered To:

Faculty and instructional staff who hold a degree

## StemWording:

In what field or discipline was your [FILL Q17A1 or Q17A1B]?
(Enter the name of your degree field or discipline. This name will be used to match against a list of academic fields, so please be specific and do not use abbreviations or acronyms.)

Form: Q17a3AC Label: Highest degree field-autocode

## Form Administered To:

Faculty and instructional staff who provided a verbatim highest degree field

## StemWording:

Please select the appropriate code for your [FILL Q17A1 or Q17A1B] field: [FILL Q17a3VS]. If you do not agree with these codes, select "None of these codes" to manually code the field.

Autocoding Explanation: Using the verbatim string of the respondent's highest degree field (provided in Q17A3VS), item Q17A3AC matches the string to selected CIP categories (see pages C-28 through C30 for a list of codes and descriptions). Descriptions that match the verbatim string appear on the screen, and the respondent selects the code that best describes the degree field. Strings that do not match the CIP descriptions are routed to Q17A3CD for manual coding. (The respondent can also modify the verbatim string and redo the match or manually code the teaching field in Q17A3CD.)

Form: Q17a3CD
Name: Q17a3C2 Label: Highest degree field-general code
Name: Q17a3C4 Label: Highest degree field-specific code

## Form Administered To:

Faculty and instructional staff who provided a verbatim highest degree field, but whose results were not autocoded

## StemWording:

Please help us categorize "[FILL Q17a3VS]" using the drop-down list boxes below.
[IF Q16CD $\geq 0$ ]
(Select one from the list of disciplines you've already told us about:)
[ENDIF]
(Coding Directions: Please select a general area and then the specific discipline within the general area. Use the arrow at the right side of the first dropdown box to display the general areas. Click to select the desired general area, and then select the desired specific discipline within the area from the second dropdown box.)

* General Area:
* Specific Discipline:

Note: Please refer to the complete list of instructional program codes on pages C-28 through C-30.

Form: Q17a4
Name: Q17a4ST Label: Highest degree institution-state
Name: Q17a4C Label: Highest degree institution-city
Name: Q17a4N Label: Highest degree institution-name
Name: Q17a4I Label: Highest degree institution-IPEDS

## Form Administered To:

Faculty and instructional staff who hold a degree

## StemWording:

Please help us code the postsecondary institution that awarded your [FILL Q17A1 or Q17A1B] by providing the state and city in which it was located.

## (Steps:

1. Please select the state in which the school was located. If the school was located in another country, select "foreign country."
2. Enter the name of the city in which the institution was located. You can also use the "Browse" link to identify the city.
3. Select the "Continue" button to list the schools located in that state and city.
4. Select the desired school.

Problems? Try searching for the school by state without listing a city. If you still can't find the school, select the "Unable To Find School in List" button at the bottom of the search results.)

* State/Foreign:

| $1=$ Alabama | $21=$ Maryland | $41=$ South Carolina |
| :--- | :--- | :--- |
| $2=$ Alaska | $22=$ Massachusetts | $42=$ South Dakota |
| $3=$ Arizona | $23=$ Michigan | $43=$ Tennessee |
| $4=$ Arkansas | $24=$ Minnesota | $44=$ Texas |
| $5=$ California | $25=$ Mississippi | $45=$ Utah |
| $6=$ Colorado | $26=$ Missouri | $46=$ Vermont |
| $7=$ Connecticut | $27=$ Montana | $47=$ Virginia |
| $8=$ Delaware | $28=$ Nebraska | $48=$ Washington |
| $9=$ District of Columbia | $29=$ Nevada | $49=$ West Virginia |
| $10=$ Florida | $30=$ New Hampshire | $50=$ Wisconsin |
| $11=$ Georgia | $31=$ New Jersey | $51=$ Wyoming |
| $12=$ Hawaii | $32=$ New Mexico | $52=$ Puerto Rico |
| $13=$ Idaho | $33=$ New York | $54=$ American Samoa |
| $14=$ Illinois | $34=$ North Carolina | $55=$ Guam |
| $15=$ Indiana | $35=$ North Dakota | $56=$ Federated States of Micronesia |
| $16=$ Iowa | $36=$ Ohio | $57=$ Marshall Islands |
| $17=$ Kansas | $37=$ Oklahoma | $58=$ Northern Mariana Islands |
| $18=$ Kentucky | $38=$ Oregon | $59=$ Palau |
| $19=$ Louisiana | $39=$ Pennsylvania | $60=$ U.S. Virgin Islands |
| $20=$ Maine | $40=$ Rhode Island | $63=$ Foreign Country |

* City:
* School Name:

Form: Q17d1
Label: Bachelor's degree date awarded

## Form Administered To:

Faculty and instructional staff who reported their highest degree as master's level or above

## StemWording:

In what year did you receive your bachelor's degree?
(If you have more than one degree at this level, please select the first degree.)

* Year received:
* Not applicable (Do not hold a bachelor's degree)

Form: Q18 Label: Other current jobs, number of jobs

## Form Administered To:

All faculty and instructional staff

## StemWording:

While you were employed at [FILL INSTNAME], how many other jobs did you hold during the 2003 Fall Term? Please do not consider any outside consulting jobs. (If none, select "0.")
$0=0$
$1=1$
$2=2$
$3=3$
$4=4$
$5=5$ or more

Form: Q19a1
Label: Other current jobs, full-time employment
Form Administered To:
Faculty and instructional staff with other employment (excluding consulting)

## StemWording:

[IF Q18>1]
Were you employed full time at any of these other jobs during the 2003 Fall Term?
[ELSE]
Were you employed full time at this other job during the 2003 Fall Term?
[ENDIF]
$0=$ No
$1=\mathrm{Yes}$

Form: Q19b1 Label: Other current jobs, number in postsecondary instruction
Form Administered To:
Faculty and instructional staff with other employment (excluding consulting)

## StemWording:

How many of these other jobs involved instruction at another postsecondary institution during the 2003 Fall Term? (If none, select "0.")
$0=0$
$1=1$
$2=2$
$3=3$
$4=4$
$5=5$ or more

Form: Q21
Label: First postsecondary job, current job is first

## Form Administered To:

All faculty and instructional staff

## StemWording:

Is the job you held at [FILL INSTNAME] during the 2003 Fall Term the first faculty or instructional staff position you have held at a postsecondary institution? Do not include teaching assistant or research assistant positions while you were working on your degree.
$0=$ No
$1=$ Yes

Form: Q23 Label: First postsecondary job, year began
Form Administered To:
Faculty and instructional staff who have worked at another postsecondary institution

## StemWording:

In what year did you begin your first faculty or instructional staff position at a postsecondary institution?
(Do not include time when you were a teaching or research assistant.)

* Year:

Form: Q24 Label: First postsecondary job, part or full time

## Form Administered To:

All faculty and instructional staff

## StemWording:

[IF Q21=1]
When you first started your job at [FILL INSTNAME], were you employed full time or part time?
[ELSE]
Were you employed full time or part time at your first faculty or instructional staff position?
[ENDIF]
(Do not consider teaching or research assistant positions.)
1 = Full time
2 = Part time

Form: Q26 Label: First postsecondary job, tenure status

## Form Administered To:

Faculty and instructional staff whose first job was full-time except if this is their first postsecondary institution position and there is no tenure system at this institution

## StemWording:

[IF Q21=1]
When you began working at [FILL INSTNAME], was your tenure status. . .
[ELSE]
When you began working at your first faculty or instructional staff job at a postsecondary institution, was your tenure status. . .
[ENDIF]
$1=$ Tenured
$2=$ On tenure track but not tenured
$3=$ Not on tenure track
4 = Not tenured because institution had no tenure system

Form: Q27
Label: Other jobs, any outside postsecondary since degree
Form Administered To:
All faculty and instructional staff

## StemWording:

Since receiving your highest degree, have you held any positions outside of postsecondary institutions?
$0=$ No
$1=\mathrm{Yes}$

Form: Q28
Label: Other jobs, sector of previous job

## Form Administered To:

All faculty and instructional staff

## StemWording:

Now we would like to know about the job you held prior to starting your current job at [FILL INSTNAME]. Was the job in a . . .
(By "Current Job" we mean the position you held at [FILL INSTNAME] during the 2003 Fall Term.)
$0=$ Not applicable (No job immediately prior to this one)
$1=4$ - or 2 -year postsecondary institution
2 = Other educational institution
3 = Government (federal, state, local) or military organization
$4=$ Foundation or other nonprofit organization
$5=$ For profit business or industry
$6=$ Other

## SECTION C: Instructional Responsibilities and Workload

Form: Q31
Name: Q31a
Name: Q31b
Name: Q31c
Name: Q31d

Label: Hours per week on paid tasks at institution
Label: Hours per week on unpaid tasks at institution
Label: Hours per week on paid tasks outside of institution
Label: Hours per week on unpaid tasks outside of institution

## Form Administered To:

All faculty and instructional staff

## StemWording:

This next section of the questionnaire relates to your responsibilities on the job and your workload.
On average, how many hours per week did you spend at each of the following work activities during the 2003 Fall Term?
(Enter average number of hours. If not sure, give your best estimates. If none, enter "0." If less than one hour, enter "1.")

* a. All paid activities at [FILL INSTNAME] (e.g., teaching, clinical service, class preparation, research, administration)
* b. All unpaid activities at [FILL INSTNAME] (e.g., club assistance, recruiting, attending institution events)
* c. Any other paid activities outside [FILL INSTNAME] including consulting, working at other jobs, teaching at other schools
* d. Unpaid professional service activities outside [FILL INSTNAME] related to your work. (Do not include volunteer work unrelated to your profession.)

Form: Q32
Name: Q32a Label: Percent time spent on instruction, undergraduate
Name: Q32b Label: Percent time spent on instruction, graduate/first-professional
Name: Q32c Label: Percent time spent on research activities
Name: Q32d Label: Percent time spent on other unspecified activities

## Form Administered To:

Faculty and instructional staff who worked at least one hour per week at the target institution

## StemWording:

[IF Q31A AND Q31B AND Q31C AND Q31D = BLANK]
For the hours you worked during the 2003 Fall Term at [FILL INSTNAME],
[ELSE]
For the [FILL Q31A + Q31B] hours per week you worked during the 2003 Fall
Term at [FILL INSTNAME],
[ENDIF]
we would like you to allot this time-using percentages-into four broad categories:
Instruction with undergraduates, Instruction with graduate and first-professional students, Research, and Other Activities. (If you are not sure, give your best estimate. The percentages should sum to $100 \%$. If none for a category, enter "0".)

What percentage of your time was spent on. . .

* a. Instructional Activities with Undergraduates, including teaching and preparing for classes, advising, and supervising students at this institution?
* b. Instructional Activities with Graduate and First Professional students, including teaching and preparing for classes, advising, and supervising students at this institution?
* c. Research Activities, other forms of scholarship, or grants at this institution?
* d. All Other Activities at this institution like administration, professional growth, service, and other activities not related to teaching or research.

Form: Q35a
Name: Q35a1 Label: Number of classes taught, credit
Name: Q35a2 Label: Number of classes taught, noncredit

## Form Administered To:

Faculty and instructional staff with instructional duties, Fall 2003

## StemWording:

Next, we would like to ask you about the classes or sections you taught during the 2003 Fall Term at [FILL INSTNAME]. Please do not include individualized instruction. Questions about independent study, intern supervision, and one-on-one instruction in performance, clinical, or research settings come later. (If none, select "no classes.")

How many. . .
a. Classes/sections for credit towards degree did you teach?

* b. Classes/sections not for credit towards degree did you teach?
(Guidance on Counting Classes
Count multiple sections of the same course separately. For example, Sociology 101 taught to two different groups of students would count as two classes.

Count lab or discussion sections as part of the same class unless they have separate credits assigned to them. For example, a biology class with lectures, labs, and discussion sections each week counts as one class.)
$0=$ No classes
1 = 1 class
.
.
$19=19$ classes
$20=20$ or more classes

Form: Q35b
Name: Q35b Label: Number of classes taught, remedial
Name: Q35c Label: Number of classes taught, distance education

## Form Administered To:

Faculty and instructional staff who taught at least one class

## StemWording:

Of the [FILL Q35A] classes you taught at [FILL INSTNAME] in the 2003 Fall Term,
(By remedial or developmental classes, we mean courses in reading, writing, math, or other courses for students lacking the skills necessary to perform college-level work at the level required by your institution. Some institutions refer to these courses as compensatory, basic skills, or some other term.

By distance education, we mean classes where students and instructors are separated primarily or exclusively by distance or time.)

* a. How many were remedial or developmental classes?
* b. How many were taught through distance education, either exclusively or primarily?

```
0 = No classes
1 = 1 class
19 = 19 classes
20=20 or more classes
```

Form: Q36
Label: Teaching assistant in any credit class

## Form Administered To:

Faculty and instructional staff who taught at least one class for credit

## StemWording:

[IF Q35A1=1]
Did you have teaching assistants, readers, graders, or lab assistants for the credit class you taught during the 2003 Fall Term at [FILL INSTNAME]?

## [ELSE]

Did you have teaching assistants, readers, graders, or lab assistants for any of the credit classes you taught during the 2003 Fall Term at [FILL INSTNAME]?
[ENDIF]
$0=$ No
$1=\mathrm{Yes}$

Form: Q37 (loops for up to 5 classes)
Name: Q37a $(\mathrm{i}=1$ to 5 ) Label: Number of weeks taught, i -th credit class
Name: Q37b $\mathrm{b}_{\mathrm{i}}(\mathrm{i}=1$ to 5$) \quad$ Label: Number of credit hours, i -th class
Name: Q37c $\mathrm{c}_{\mathrm{i}}(\mathrm{i}=1$ to 5$) \quad$ Label: Number of hours taught per week, i -th class
Name: Q37d $\mathrm{i}_{\mathrm{i}}(\mathrm{i}=1$ to 5$) \quad$ Label: Number of students, i -th class
Name: Q37e $(i=1$ to 5$) \quad$ Label: Primary level of students, $i$-th class
Name: Q37f $\mathrm{i}(\mathrm{i}=1$ to 5 ) Label: Teaching assistant, i-th class

## Form Administered To:

Faculty and instructional staff who taught at least one class for credit

## StemWording:

[IF Q35A1>5]
You reported earlier that you taught [FILL Q35A1] classes for credit during the 2003 Fall Term at [FILL INSTNAME]. We have space for you to describe 5 of these classes. Please describe the ones you feel are most relevant for your instructional activities. We will call them classes A to E.
[IF Q35A1 >1 AND Q35A1 $\leq 5]$
You reported earlier that you taught [FILL Q35A1] classes for credit during the 2003 Fall Term at [FILL INSTNAME]. Please answer the following questions for each of these classes, we will call A to [FILL B (IF Q35A1=2) OR C (IF Q35A1=3) OR D (IF Q35A1=4) OR E (IF Q35A1=5)].
[IF Q35A1=1]
For the credit class that you reported teaching at [FILL INSTNAME] during the 2003 Fall Term, please answer the following questions.

## [ENDIF]

* a. How many weeks did you teach the class?

00 weeks
1 week
. .
. .
2424 weeks
2525 weeks

* b. How many credits were attached to the class?
* c. How many hours did you teach the class per week?
(Do not include preparation time.)
* d. How many students were enrolled in the class?
* e. Were the students in this class primarily undergraduate, graduate, or first professional (e.g., dental, medical, law, theology)?

1 = Undergraduate
2 = Graduate
3 = First professional

* f. Did you have a teaching or lab assistant, reader, or grader assigned to this class?
$0=$ No
$1=$ Yes

Form: Q38
Name: Q38a
Label: Undergrad class, multiple choice midterm/final exams
Name: Q38b
Label: Undergrad class, essay midterm/final exams
Name: Q38c
Label: Undergrad class, short answer midterm/final exams
Name: Q38d
Label: Undergrad class, term/research papers
Name: Q38e
Label: Undergrad class, multiple drafts of written work
Name: Q38f
Label: Undergrad class, oral presentations
Name: Q38g
Label: Undergrad class, group projects
Name: Q38h
Label: Undergrad class, student evaluations of each others^ ${ }^{\wedge}$ work
Name: Q38i
Label: Undergrad class, laboratory/shop/studio assignments
Name: Q38j
Label: Undergrad class, service learn/co-op interactions with business

## Form Administered To:

Faculty and instructional staff who taught an undergraduate credit class

## StemWording:

[IF Q37EI=1 FOR EXACTLY ONE OF THE Q37Ei, WHERE $i=1$ TO 5 OR
(IF Q32A>0 AND Q32B=0 OR BLANK AND Q35A1=1)]
For the undergraduate class you taught for credit during the 2003 Fall Term at [FILL INSTNAME], did you use any of the following?

## [ELSE]

For the undergraduate classes you taught for credit during the 2003 Fall Term at [FILL INSTNAME], did you use any of the following?
[ENDIF]
Did you use. . .

* a. Multiple-choice midterm or final exam?
* b. Essay midterm or final exam?
* c. Short-answer midterm or final exam?
* d. Term/research papers and writing assignments?
* e. Multiple drafts of written work?
* f. Oral presentations by students?
* g. Group and team projects producing a joint product?
* h. Student evaluations of each other's work?
* i. Laboratory, shop, or studio assignments?
* j. Service learning, co-op experiences or assignments requiring interactions with the community or business/industry?

1 = Used in all classes
2 = Used in some classes
3 = Not used

Form: Q39
Label: Website for any instructional duties
Form Administered To:
Faculty and instructional staff who had instructional duties

## StemWording:

During the 2003 Fall Term at [FILL INSTNAME], did you have one or more web sites for any of your teaching, advising, or other instructional duties?
(Web sites used for instructional duties might include the syllabus, readings, assignments, and practice exams for classes; might enable communication with students via listservs or online forums; and might provide real-time computer-based instruction.)
$0=$ No
$1=\mathrm{Yes}$

Form: Q41 Label: Hours per week, e-mailing students

## Form Administered To:

Faculty and instructional staff who had instructional duties

## StemWording:

During the 2003 Fall Term at [FILL INSTNAME], how many hours per week did you spend communicating by e-mail (electronic mail) with your students? (If none, enter "0.")

* Hours per week:

Form: Q46 Label: Individual instruction, any

## Form Administered To:

All faculty and instructional staff

## StemWording:

During the 2003 Fall Term, did you provide individual instruction for credit to any student at [FILL INSTNAME]? By individual instruction, we mean independent study, supervising student teachers or interns, and one-on-one instruction like working with students in a clinical or research setting. Do not include dissertation or thesis committee work.
$0=\mathrm{No}$
$1=$ Yes

Form: Q47
Name: Q47a1 Label: Individual instruction, number undergraduate students
Name: Q47a2 Label: Individual instruction, number graduate students
Name: Q47a3 Label: Individual instruction, number first-professional students

## Form Administered To:

Faculty and instructional staff who provided individual instruction to students

## StemWording:

[IF Q32A>0 AND Q32B=0 OR BLANK]
How many undergraduate students received individual instruction for credit from you during the 2003 Fall Term?
[ELSE]
Of the students who received individual instruction for credit from you during the 2003 Fall Term, how many were . . .
[ENDIF]
(If none, enter "0.")

* Undergraduate students
* Graduate students
* First-professional students (e.g., dental, medical, law, theology)

Form: Q47b
Name: Q47b1
Label: Individual instruction, hours with undergraduates
Name: Q47b2
Label: Individual instruction, hours with graduate students
Name: Q47b3
Label: Individual instruction, hours with first-professional students

## Form Administered To:

Faculty and instructional staff who provided individual instruction to undergraduate, graduate, or first-professional students

## StemWording:

Of the students who received individual instruction for credit from you during the 2003 Fall Term, what was the total number of hours you spent each week with your. . .
(If less than one hour, enter "1.")

* Undergraduate students
* Graduate students
* First-professional students

Form: Q48
Name: Q48
Label: Hours per week, thesis/dissertation committees
Name: Q49
Label: Hours per week, administrative committees
Name: Q50
Label: Hours per week, with advisees
Name: Q51
Label: Hours per week, office hours

## Form Administered To:

All faculty and instructional staff

## StemWording:

The next items ask about the average number of hours each week during the 2003 Fall Term at [FILL INSTNAME] that you did the following activities.
(If none, enter "0." If less than one hour, enter "1." If not sure, give your best estimate.)

How many hours per week did you spend. . .

* On undergraduate and graduate thesis or dissertation committees, comprehensive exams or orals committees, or examination or certification committees?
* On administrative committee work? Please include curriculum, personnel, governance, and other committees at the department, division, institution, and system levels.
* With students you were assigned to advise? (Do not include hours spent working with students on their theses, dissertations, or independent studies.)
* In regularly scheduled office hours in person or online?


## SECTION D: Scholarly Activities

Form: Q52a
Name: Q52aa
Name: Q52ab
Label: Career articles, refereed journals

Name: Q52ac
Label: Career articles, nonrefereed journals
Name: Q52ad
Label: Career book reviews, chapters, creative works
Label: Career books, textbooks, reports
Name: Q52ae
Name: Q52af
Label: Career presentations
Name: Q52ag
Label: Career exhibitions, performances
Label: Career patents, computer software

## Form Administered To:

All faculty and instructional staff

## StemWording:

Next, we would like to consider your scholarly activities. During your entire career, how many of the following have you completed?
(If not sure, give your best estimates.)

* Articles published in refereed professional or trade journals; or creative works published in juried media?
* Articles published in nonrefereed professional or trade journals; or creative works published in nonjuried media or in-house newsletters?
* Published reviews of books, articles, or creative works; or chapters in edited volumes?
* Textbooks, other books; monographs; research or technical reports disseminated internally or to clients?
* Presentations at conferences, workshops, etc.?
* Exhibitions or performances in the fine or applied arts?
* Patents and computer software products?
(For publications, include only works that have been accepted for publication. Count multiple publications/presentations of the same work only once. Include electronic publications that are not published elsewhere in the appropriate categories.)


## Form: Q52b

Name: Q52ba
Label: Recent articles, refereed journals
Name: Q52bb
Label: Recent articles, nonrefereed journals
Name: Q52bc
Name: Q52bd
Label: Recent book reviews, chapters, creative works
Name: Q52be
Label: Recent books, textbooks, reports
Name: Q52bf
Label: Recent presentations
Name: Q52bg
Label: Recent exhibitions, performances
Label: Recent patents, computer software

## Form Administered To:

Faculty and instructional staff who have presented or published during their career

## StemWording:

We would like to consider the level of your scholarly activities during the last two years.

* Of the [FILL Q52aa] articles or creative works published in refereed journals or juried media in your career, how many were done in the last two years?
* Of the [FILL Q52ab] articles or creative works published in nonrefereed journals or nonjuried media in your career, how many were done in the last two years?
* Of the [FILL Q52AC] reviews of books, articles, or creative works; chapters in edited volumes published in your career, how many were in the last two years?
* Of the [FILL Q52AD] textbooks, other books; monographs; and client reports you published during your career, how many were done in the last two years?
* Of the [FILL Q52ae] presentations you made at conferences or workshops in your career, how many were made in the last two years?
* Of your [FILL Q52af] career exhibitions or performances, how many were in the last two years?
* Of your [FILL Q52ag] career patents, software products, or other works, how many were done in the last two years?

Form: Q53
Label: Scholarly activity, any

## Form Administered To:

All faculty and instructional staff

## StemWording:

Do you have any scholarly activities such as research, proposal development, creative writing, or other creative works in the 2003-04 academic year?
$0=$ No
$1=$ Yes

Form: Q54VS Label: Scholarly activity, principal field-verbatim

## Form Administered To:

Faculty and instructional staff who have scholarly activities and did not provide principal field of teaching (Q16VS)

## StemWording:

What is your principal field or discipline of scholarly activity?
(Enter the name of your principal field/discipline of scholarly activity. This name will be used to match against a list of academic fields, so please be specific and do not use abbreviations or acronyms.)

* Name of principal field/discipline of scholarly activity:

Form: Q54AC Label: Principal field of scholarly activity-autocode

## Form Administered To:

Faculty and instructional staff who provided a verbatim field of scholarly activity

## StemWording:

Please select the appropriate code for your field of scholarly activity: [FILL Q54VS]. If you do not agree with these codes, select "None of these codes" to manually code the field.

> Autocoding Explanation: Using the verbatim string of the respondent's field of scholarly activity (provided in Q54VS), item Q54AC matches the string to selected CIP categories (see pages C-28 through C-30 for a list of codes and descriptions). Descriptions that match the verbatim string appear on the screen, and the respondent selects the code that best describes the field. Strings that do not match the CIP descriptions are routed to Q54CD for manual coding. (The respondent can also modify the verbatim string and redo the match or manually code the scholarly field in Q54CD).

Form: Q54CD
Name: Q54CD2 Label: Principal research field-general code
Name: Q54CD4 Label: Principal research field-specific code

## Form Administered To:

Faculty and instructional staff who provided a verbatim field of scholarly activity, but whose results were not autocoded

## StemWording:

Please help us to categorize "[FILL Q54VS]" using the drop-down list boxes below.
[IF Q17A3AC $\geq 0$ ]
(Select one from the list of disciplines you've already told us about:)
[ENDIF]
Coding Directions: Please select a general area and then the specific discipline within the general area. Use the arrow at the right side of the first dropdown box to display the general areas. Click to select the desired general area, and then select the desired specific discipline within the area from the second dropdown box.)

* General area:
* Specific Discipline:

Note: Please refer to the complete list of instructional program codes on pages C-28 through C-30.

Form: Q56 Label: Scholarly activity, description

## Form Administered To:

Faculty and instructional staff engaged in scholarly activity

## StemWording:

How would you describe your principal scholarly activity during the 2003-04 academic
year? Is it. . .
1 = Basic research
$2=$ Applied or policy-oriented research or analysis
3 = Literary, performance, or exhibitions
$4=$ Program and curriculum design and development
5 = Other

Form: Q55
Label: Scholarly activity, any funded
Form Administered To:
Faculty and instructional staff engaged in scholarly activity

## StemWording:

During the 2003-04 academic year, are any of your scholarly activities at [FILL INSTNAME]
funded? Do not include consulting services and research included as part of your basic salary.
$0=$ No
$1=\mathrm{Yes}$

## SECTION E: Job Satisfaction

Form: Q61
Name: Q61a
Label: Satisfaction with authority to make decisions
Name: Q61b
Name: Q61c
Name: Q61d

Name: Q62a
Label: Satisfaction with technology-based activities
Label: Satisfaction with equipment/facilities
Label: Satisfaction with institutional support for teaching improvement

Name: Q62b
Label: Satisfaction with workload

Name: Q62c
Label: Satisfaction with salary

Name: Q62d
Label: Satisfaction with benefits
Label: Satisfaction with job overall

## Form Administered To:

All faculty and instructional staff with instructional responsibilities (Q61a-Q61d); All faculty and instructional staff (Q62a-Q62d)

## StemWording:

[IF Q1=1 OR Q46=1 OR Q48>0 OR Q35A1>0 OR Q35A2>0]
With regard to your job at [FILL INSTNAME] during the 2003 Fall Term, would you say you were very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with. . .
[ELSE]
With regard to your job at [FILL INSTNAME], would you say you are very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with. . .

## [ENDIF]

* The authority you had to make decisions about content and methods in your instructional activities
* The institutional support for implementing technology-based instructional activities
* Quality of equipment and facilities available for classroom instruction
* Institutional support for teaching improvement (including grants, release time, and professional development funds)
* Your workload
* Your salary
* The benefits available to you
* Your job at this institution, overall

Form: Q65
Name: Q64 Label: Retired from another position
Name: Q65 Label: Retire from all paid employment, planned age

## Form Administered To:

All faculty and instructional staff

## StemWording:

* Have you retired from another position?
$0=$ No
$1=\mathrm{Yes}$
* At what age do you think you are most likely to retire from all paid employment? (Enter age or select "Don't know.")

Years of age/Don't know

## SECTION F: Compensation

Form: Q66
Name: Q66a
Name: Q66b
Name: Q66c
Name: Q66d
Name: Q66e
Name: Q66f

Label: Amount of income from basic salary from institution
Label: Amount of income from other income from institution
Label: Amount of income from other academic institution
Label: Amount of income from consulting or freelance work
Label: Amount of income from other employment
Label: Amount of income from other unspecified sources

## Form Administered To:

All faculty and instructional staff

## StemWording:

We are almost finished. The next questions will be about your compensation and about your background. Your responses to these items-as with all items on this instrument-are voluntary and strictly confidential. They will be used only in statistical summaries.

For the 2003 calendar year, please estimate your gross compensation before taxes. Do not include non-monetary compensation.
(Enter dollar amount. If not sure, give your best estimates. If not applicable, enter "0.")

## First, your compensation from [FILL INSTNAME]:

a. What is your basic salary during the calendar year from this institution?
b. How much compensation did you receive from other income from this institution not included in basic salary (e.g., for summer session, overload courses, administration, research, coaching sports, etc.)?

## Next, your compensation from other sources

c. How much were you paid for employment at another postsecondary institution?
d. How much were you paid for outside consulting or freelance work?
e. How much were you compensated for any other employment besides consulting and another postsecondary institution (e.g., speaking fees and honoraria, self-owned business, legal/medical/psychological services, professional performances/exhibitions)?
f. How much income did you receive from any other source (e.g., investment income, royalties/commissions, pensions, real estate, loans, alimony, or child support)?

Form: Q66b Label: Amount of total individual income (range)

## Form Administered To:

Faculty and instructional staff who did not complete all compensation item amounts

## StemWording:

The following ranges may make it easier for you to estimate your total income from all sources for the 2003 calendar year.
(Your responses to these items are strictly confidential. They will be used only in statistical summaries.)
$1=\$ 1-24,999$
$2=\$ 25,000-49,999$
3 = \$50,000-74,999
$4=\$ 75,000-99,999$
$5=\$ 100,000-149,999$
$6=\$ 150,000-199,999$
$7=\$ 200,000-300,000$
$8=$ More than $\$ 300,000$

Form: Q67
Label: Type of contract, length of unit

## Form Administered To:

All faculty and instructional staff

## StemWording:

Is your basic salary at [FILL INSTNAME] this academic year based on a 9- or 10-month contract, an 11 - or 12-month contract, or some other arrangement?
(Please answer based on the length of your contract and how long you work rather than on the number of months you are paid.)
$1=9-$ or $10-$ month contract
$2=11-$ or $12-$ month contract
3 = Other, for example, by course or credit hour

Form: Q68
Label: Income paid per course/credit unit or term

## Form Administered To:

Faculty and instructional staff paid on something other than a
9-, 10-, 11-, or 12-month contract

## StemWording:

What was the basis of your pay? Was it by. . .
$1=$ Course
2 = Credit hour
3 = Academic term
4 = Other (e.g., per student, hourly rate)

Form: Q69 Label: Amount of income paid per course/credit unit or term
Form Administered To:
Faculty and instructional staff paid by course, credit hour, or academic term

## StemWording:

How much were you paid per [FILL Q68]?

Form: Q70a Label: Amount of total household income

## Form Administered To:

All faculty and instructional staff

## StemWording:

[IF RESPONDED TO ALL PARTS OF Q66AA-Q66AF]
You told us before that your income from all sources for the 2003 Calendar year was $\$$ [FILL Q66ASUM]. What was your total household income before taxes for that same year?
[ELSE IF Q66B $\geq 1$ and Q66B $\leq 8$ ]
You told us before that your income from all sources for the 2003 Calendar year was [FILL Q66B].
What was your total household income before taxes for that same year?

## [ELSE]

For the 2003 calendar year, what was your total household income before taxes?
[ENDIF]
(By household income, we mean the total income received by all persons, including yourself, residing in the house during the 2003 calendar year, but excluding minors and full-time students. Please include income from employment and from other sources including your spouse or partner, self-employment, interest earnings, alimony or child support, insurance benefits, and pension payments.)

* Enter amount:

Form: Q70b
Label: Amount of total household income (range)
Form Administered To:
Faculty and instructional staff who did not provide their household income

## StemWording:

The following ranges may make it easier for you to report your total household income. Was your income between. . .
(Your responses to these items are strictly confidential. They will be used only in statistical summaries.)
-1 = Don't know
$1=\$ 1-24,999$
$2=\$ 25,000-49,999$
3 = \$50,000-74,999
4 = \$75,000-99,999
$5=\$ 100,000-149,999$
$6=\$ 150,000-199,999$
7 = \$200,000-300,000
$8=$ More than $\$ 300,000$

## SECTION G: Sociodemographic Characteristics

Form: Q71 Label: Gender

## Form Administered To:

All faculty and instructional staff

## StemWording:

The last few questions ask you to describe yourself and your opinions about your job.
Are you...
1 = Male
$2=$ Female

Form: Q72
Label: Age, year of birth
Form Administered To:
All faculty and instructional staff

## StemWording:

In what year were you born?

* Enter year:

Form: Q73
Label: Race/ethnicity, Hispanic/Latino
Form Administered To:
All faculty and instructional staff

## StemWording:

Are you Hispanic or Latino?
$0=$ No
$1=\mathrm{Yes}$

Form: Q74
Name: Q74a
Label: Race, American Indian or Alaska Native
Name: Q74b
Label: Race, Asian
Name: Q74c
Label: Race, Black or African American
Name: Q74d Label: Race, Native Hawaiian or other Pacific Islander
Name: Q74e Label: Race, White

## Form Administered To:

All faculty and instructional staff

## StemWording:

Please select one or more of the following choices to best describe your race. Are you. . .
(Select all that apply.)

* American Indian or Alaska Native
* Asian
* Black or African American
* Native Hawaiian or Other Pacific Islander
* White
$0=$ No
$1=$ Yes

Form: Q75 Label: Disability, any

## Form Administered To:

All faculty and instructional staff

## StemWording:

Do you have a long-lasting condition that substantially limits one or more of your major life activities?
(By this we mean do you have a physical, visual, auditory, mental, emotional, or other disabling condition that limits your ability to see, hear, or speak; to learn, remember, or concentrate; to dress, bathe, or get around the house, or to get to school or around campus.)

```
O = No
1= Yes
```

Form: Q77
Label: Marital status, fall 2003
Form Administered To:
All faculty and instructional staff

## StemWording:

On November 1, 2003, were you . . .
$1=$ Single and never married
2 = Married
3 = Living with partner or significant other
$4=$ Separated, divorced, or widowed

Form: Q79 Label: Dependent children, number
Form Administered To:
All faculty and instructional staff

## StemWording:

How many dependent children do you support?
(A dependent child is a person 24 years old or younger for whom you provide at least half of his/her financial support.)

* Number of dependent children:
$0=$ None
$1=1$
$2=2$
.
.
$9=9$
$10=10$ or more dependents

Form: Q80
Name: Q80
Label: Born in United States
Name: Q81
Label: Citizenship status
Form Administered To:
All faculty and instructional staff

## StemWording:

Were you born in the United States?
$0=$ No
$1=\mathrm{Yes}$
Are you a United States citizen?
$0=$ No
$1=\mathrm{Yes}$

## SECTION H: Opinions

Form: Q82
Name: Q82a
Label: Opinion: teaching is rewarded
Name: Q82b
Name: Q82c
Label: Opinion: part-time faculty treated fairly

Name: Q82d
Label: Opinion: female faculty treated fairly
Label: Opinion: racial minorities treated fairly

## Form Administered To:

All faculty and instructional staff

## StemWording:

Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree that at [FILL INSTNAME]. . .

* a. Good teaching is rewarded
* b. Part-time faculty are treated fairly
* c. Female faculty members are treated fairly
* d. Faculty who are members of racial or ethnic minorities are treated fairly

1 = Strongly Agree
2 = Somewhat Agree
3 = Somewhat Disagree
4 = Strongly Disagree

Form: Q83
Label: Opinion about choosing an academic career again

## Form Administered To:

All faculty and instructional staff

## StemWording:

Finally, if you had it to do over again, would you still choose an academic career?
$0=$ No
$1=$ Yes

## Appendix D Item Crosswalks

Institution .................................................................................................................................. D-3
Faculty....................................................................................................................................... D-9

## Institution Crosswalk

## Institution Questionnaire Crosswalk

The crosswalk below links the NSOPF:04 questionnaire items with similar items from the three previous NSOPF institution questionnaires: NSOPF:88, NSOPF:93, and NSOPF:99. This crosswalk will facilitate analyses of trends among postsecondary institutions. Linked questions may be identical in content and format or may differ in one or more ways. The question, item, or response wording; the order in which response options were presented; the manner in which the data were collected (e.g., categorical response option versus open-ended response fields, instructions to mark one versus all that apply); and the population to which the question applies may have changed. It is strongly recommended that analysts review documentation to determine whether linked questions are equitable for their purpose.

Table D-1. Institution Questionnaire Crosswalk: 2004

| Variable name |  |  |  | NSOPF:04 variable label |
| :---: | :---: | :---: | :---: | :---: |
| NSOPF:88 | NSOPF:93 | NSOPF:99 | NSOPF:04 |  |
| 4 | 1a | 1a | 1A | Number full-time faculty, fall 2003, reported |
| 19 | 1b | 1b | 1B | Number part-time faculty, fall 2003 |
| 6 | 2 f | 5 aD | 2A | Full-time numbers: faculty, fall 2002 |
|  |  | 5bD | 2B | Full-time numbers: changed from part to full time, 2002-03 |
| 6 | 2 b | 5 cD | 2C | Full-time numbers: hired, 2002-03 |
| 6 | 2c | 5dD | 2D | Full-time numbers: retired, 2002-03 |
| 6 | $2 e+2 d$ | 5 e | 2E | Full-time numbers: left for other reasons, 2002-03 |
|  |  |  | 2F | Full-time numbers: changed from full to part time, 2002-03 |
| 4 | 2a | $5 f$ | 2G | Full-time numbers: faculty, fall 2003, calculated |
| 3 | 5 | 4 | 3 | Full-time tenure: has tenure system |
| 7 | 8a | 6a | 4 | Full-time tenure: number considered for tenure, 2002-03 |
| 7 | 8b | 6b | 5 | Full-time tenure: number granted tenure, 2002-03 |
| 10 | 9 a | 7a | 6 | Full-time tenure: maximum years on tenure track |
|  |  | 8a | 7A | Full-time tenure: changed tenure policy |
| 12.5 | 10b | 8b | 7B | Full-time tenure: more stringent tenure standards |
|  | 7b | 8c | 7C | Full-time tenure: downsized tenured faculty |
| 12.4 | 10a | 8d | 7D | Full-time tenure: replaced tenured with fixed term |
| 12.1 | 11 | 8 f | 7E | Full-time tenure: offered early retirement |
|  | 11a | 8 g | 7E2 | Full-time tenure: number early retirees, last 5 years |
|  |  | 8 e | 8 | Full-time tenure: discontinued tenure system, last 5 years |
|  | 3 | 10 | 9 | Full-time faculty: positions sought to fill, fall 2003 |
|  | 13b | 12a | 10AA | Full-time benefit: medical insurance |
|  | 13c | 12b | 10AB | Full-time benefit: dental insurance |
|  | 13d | 12c | 10AC | Full-time benefit: disability insurance |
|  | 13 e | 12d | 10AD | Full-time benefit: life insurance |
|  | 13h | 12e | 10AE | Full-time benefit: child care |
|  | 13n | 12f | 10AF | Full-time benefit: retiree medical insurance |
| 16 | 130 | 12g | 10AG | Full-time benefit: cafeteria-style plan |
| 14.04 | 13bA | 12aa | 10BA | Full-time benefit: medical insurance subsidized |

See notes at end of table.

Table D-1. Institution Questionnaire Crosswalk: 2004—Continued

| Variable name |  |  |  | NSOPF:04 variable label |
| :---: | :---: | :---: | :---: | :---: |
| NSOPF:88 | NSOPF:93 | NSOPF:99 | NSOPF:04 |  |
| 14.05 | 13cA | 12ba | 10BB | Full-time benefit: dental insurance subsidized |
| 14.06 | 13dA | 12ca | 10BC | Full-time benefit: disability insurance subsidized |
| 14.07 | 13eA | 12da | 10BD | Full-time benefit: life insurance subsidized |
| 14.10 | 13hA | 12ea | 10BE | Full-time benefit: child care subsidized |
|  | 13nA | 12fa | 10BF | Full-time benefit: retiree medical insurance subsidized |
|  | 130A | 12ga | 10BG | Full-time benefit: cafeteria-style plan subsidized |
| 14.01 | 13a | 13a | 11A | Full-time benefit: wellness program |
| 14.08 | 13 f | 13b | 11B | Full-time benefit: spouse tuition remission |
| 14.09 | 13 g | 13c | 11C | Full-time benefit: children tuition remission |
| 14.11 | 13i | 13d | 11D | Full-time benefit: housing |
|  | 13k | 13 e | 11E | Full-time benefit: transportation/parking |
| 14.02 | 131 | 13f | 11F | Full-time benefit: paid maternity leave |
| 14.03 | 13m | 13 g | 11G | Full-time benefit: paid paternity leave |
|  |  | 13h | 11H | Full-time benefit: paid sabbatical leave |
|  |  | 13i | 111 | Full-time benefit: employee assistance program |
| 13 | 19 | 15 | 12 | Full-time faculty: union representation |
|  | 18a | 16a | 13A | Full-time assessment: student evaluations |
|  | 18b | 16b | 13B | Full-time assessment: student test scores |
|  | 18c | 16c | 13C | Full-time assessment: student career placement |
|  | 18d | 16d | 13D | Full-time assessment: other student performance |
|  | 18 e | 16e | 13E | Full-time assessment: department chair evaluations |
|  | 18 f | 16 f | 13F | Full-time assessment: dean evaluations |
|  | 18 g | 16 g | 13G | Full-time assessment: peer evaluations |
|  | 18h | 16h | 13H | Full-time assessment: self-evaluations |
| 23 | 34 | 17 | 14 | Part-time benefit: retirement plan |
|  | 37 b | 20a | 15AA | Part-time benefit: medical insurance |
|  | 37c | 20b | 15AB | Part-time benefit: dental insurance |
|  | 37d | 20c | 15AC | Part-time benefit: disability insurance |
|  | 37 e | 20d | 15AD | Part-time benefit: life insurance |
|  | 37h | 20 e | 15AE | Part-time benefit: child care |
|  | $37 n$ | $20 f$ | 15AF | Part-time benefit: retiree medical insurance |
| 24 | 370 | 20 g | 15AG | Part-time benefit: cafeteria-style plan |
|  | 37bA | 20aa | 15BA | Part-time benefit: medical insurance subsidized |
|  | 37 cA | 20ba | 15BB | Part-time benefit: dental insurance subsidized |
|  | 37dA | 20ca | 15BC | Part-time benefit: disability insurance subsidized |
|  | 37 eA | 20da | 15BD | Part-time benefit: life insurance subsidized |
|  | 37hA | 20ea | 15BE | Part-time benefit: child care subsidized |
|  | 37nA | 20fa | 15BF | Part-time benefit: retiree medical insurance subsidized |
|  | 37oA | 20ga | 15BG | Part-time benefit: cafeteria-style plan subsidized |
|  | 37a | 21a | 16A | Part-time benefit: wellness program |
|  | 37f | 21b | 16B | Part-time benefit: spouse tuition remission |

See notes at end of table.

Table D-1. Institution Questionnaire Crosswalk: 2004—Continued

| Variable name |  |  |  | NSOPF:04 variable label |
| :---: | :---: | :---: | :---: | :---: |
| NSOPF:88 | NSOPF:93 | NSOPF:99 | NSOPF:04 |  |
| 22 | 37 g | 21c | 16C | Part-time benefit: children tuition remission |
|  | 37i | 21d | 16D | Part-time benefit: housing |
|  | 37k | 21e | 16E | Part-time benefit: transportation/parking |
|  | 371 | 21 f | 16F | Part-time benefit: paid maternity leave |
|  | 37m | 21g | 16G | Part-time benefit: paid paternity leave |
|  |  | 21h | 16H | Part-time benefit: paid sabbatical leave |
|  |  | 21i | 161 | Part-time benefit: employee assistance program |
|  | 43 | 24 | 17 | Part-time faculty: union representation |
|  | 42a | 25a | 18A | Part-time assessment: student evaluations |
|  | 42b | 25b | 18B | Part-time assessment: student test scores |
|  | 42c | 25c | 18C | Part-time assessment: student career placement |
|  | 42d | 25d | 18D | Part-time assessment: other student performance |
|  | 42e | 25 e | 18E | Part-time assessment: department chair evaluations |
|  | 42 f | $25 f$ | 18F | Part-time assessment: dean evaluations |
|  | 42 g | 25g | 18G | Part-time assessment: peer evaluations |
|  | 42h | 25h | 18H | Part-time assessment: self-evaluations |
|  | 17 | 26a | 19A | Undergraduate instruction: percent full-time faculty |
|  | 41 | 26b | 19B | Undergraduate instruction: percent part-time faculty |
|  |  | 26c | 19C | Undergraduate instruction: percent teaching assistants |
|  |  | 26d | 19D | Undergraduate instruction: percent other |

NOTE: The actual name of each NSOPF:04 institution variable has an " l " as the starting character.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04), 1999 National Study of Postsecondary Faculty (NSOPF:99), 1993 National Study of Postsecondary Faculty (NSOPF:93), 1988 National Survey of Postsecondary Faculty (NSOPF:88).

Faculty Crosswalk

## Faculty Questionnaire Crosswalk

The crosswalk below links the NSOPF:04 questionnaire items with similar items from the three previous NSOPF faculty questionnaires: NSOPF:88, NSOPF:93, and NSOPF:99. This crosswalk will facilitate analyses of trends among faculty at postsecondary institutions. Linked questions may be identical in content and format or may differ in one or more ways. The question, item, or response wording; the order in which response options were presented; the manner in which the data were collected (e.g., categorical response option versus open-ended response fields, instructions to mark one versus all that apply); and the population to which the question applies may have changed. It is strongly recommended that analysts review documentation to determine whether linked questions are equitable for their purpose.

Table D-2. Faculty Questionnaire Crosswalk: 2004

| Variable name |  |  |  | NSOPF:04 variable label |
| :---: | :---: | :---: | :---: | :---: |
| NSOPF:88 | NSOPF:93 | NSOPF:99 | NSOPF:04 |  |
| Q1 | Q1 | Q1 | Q1 | Instructional duties, any |
| Q2 | Q1A | Q2 | Q2 | Instructional duties related to credit courses/activities |
|  | Q3 | Q4 | Q3 | Faculty status |
|  | Q2 | Q3 | Q4 | Principal activity |
| Q4 | Q4 | Q5 | Q5 | Employed full or part time at this institution |
|  |  |  | Q6 | Part-time employment is primary employment |
|  |  |  | Q8 | Part-time but preferred full-time position |
|  | Q6 | Q7 | Q9 | Year began current job |
| Q12 | Q9 | Q8 | Q10 | Rank |
| Q13 | Q10 | Q9 | Q11 | Rank, year attained professor or associate professor |
| Q9 | Q7 | Q10 | Q12 | Tenure status |
| Q10 | Q7A | Q10 | Q13 | Tenure, year attained at any postsecondary institution |
| Q18 | Q38 | Q64 | Q14 | Union status |
|  | Q38 | Q64 | Q15 | Union status, reason not a member |
|  | Q12 | Q14 | Q16VS | Principal field of teaching-verbatim |
|  |  |  | Q16CD2 | Principal field of teaching-general code |
| Q16 | Q12 | Q14 | Q16CD4 | Principal field of teaching-specific code |
| Q26 | Q16.1A | Q16.1A | Q17A1 | Highest degree |
| Q26 | Q16.1B | Q16.1B | Q17A2 | Highest degree, date awarded |
|  | Q16.1D | Q16.1C | Q17A3VS | Highest degree field-verbatim |
|  |  |  | Q17A3C2 | Highest degree field-general code |
| Q26 | Q16.1C | Q16.1D | Q17A3C4 | Highest degree field-specific code |
| Q26 | Q16.1Eb | Q16.1Eb | Q17A4ST | Highest degree institution-state |
| Q26 | Q16.1Eb | Q16.1Eb | Q17A4C | Highest degree institution-city |
| Q26 | Q16.1Ea | Q16.1Ea | Q17A4N | Highest degree institution-name |
|  |  |  | Q17A4I | Highest degree institution-IPEDS |
|  |  |  | Q17A4LEV | Highest degree institution, level |
|  |  |  | Q17A4CN | Highest degree institution, control |
| Q26 | Q16 | Q16 | Q17D1 | Bachelor's degree date awarded |
| Q5 | Q17A | Q22 | Q18 | Other current jobs, number of jobs |

See notes at end of table.

Table D-2. Faculty Questionnaire Crosswalk: 2004—Continued

| Variable name |  |  |  | NSOPF:04 variable label |
| :---: | :---: | :---: | :---: | :---: |
| NSOPF:88 | NSOPF:93 | NSOPF:99 | NSOPF:04 |  |
| Q6 |  | $\begin{aligned} & \text { Q24B + } \\ & \text { Q28B } \end{aligned}$ | Q19A1 | Other current jobs, full-time employment |
| Q6 |  |  | Q19B1 | Other current jobs, number in postsecondary instruction |
|  |  |  | Q21 | First postsecondary job, current job is first |
| Q29 |  | Q24.1a | Q23 | First postsecondary job, year began |
| Q29 |  | Q24.3a | Q24 | First postsecondary job, part or full time |
|  |  | Q24.6a | Q26 | First postsecondary job, tenure status |
| Q29 |  | Q26 | Q27 | Other jobs, any outside postsecondary since degree |
| Q29 | Q19.2 | Q28.2b | Q28 | Other jobs, sector of previous job |
| Q36 | Q36a | Q30a | Q31A | Hours per week on paid tasks at institution |
| Q36 | Q36b | Q30b | Q31B | Hours per week on unpaid tasks at institution |
| Q36 | Q36c | Q30c | Q31C | Hours per week on paid tasks outside of institution |
| Q36 | Q36d | Q30d | Q31D | Hours per week on unpaid tasks outside of institution |
| Q37 | Q37a | Q31aA | Q32A | Percent time spent on instruction, undergraduate |
| Q37 | Q37a | Q31bA | Q32B | Percent time spent on instruction, graduate/first-professional |
| Q37 | Q37b | Q31cA | Q32C | Percent time spent on research activities |
| Q37 | $\begin{aligned} & \text { Q37c } \\ & \text { Q37d } \\ & \text { Q37e } \\ & \text { Q37f } \end{aligned}$ | $\begin{aligned} & \text { Q31dA } \\ & \text { Q31eA } \\ & \text { Q31fA } \end{aligned}$ | Q32D | Percent time spent on other unspecified activities |
|  | Q22A | Q40 | Q35A1 | Number of classes taught, credit |
|  |  |  | Q35A2 | Number of classes taught, noncredit |
|  |  | Q35 | Q35B | Number of classes taught, remedial |
|  |  | Q412i | Q35C | Number of classes taught, distance education |
|  |  |  | Q36 | Teaching assistant in any credit class |
|  | Q23.2Aa | Q41.2Aa | Q37A1 | Number of weeks taught, 1st credit class |
|  | Q23.2Ab | Q41.2Ab | Q37B1 | Number of credit hours, 1st class |
| Q32 | Q23.2Ac | Q41.2Ag | Q37C1 | Number of hours taught per week, 1st class |
| Q32 | Q23.2Ae | Q41.2Ae | Q37D1 | Number of students, 1st class |
| Q32 | Q23.3A | Q41.3A | Q37E1 | Primary level of students, 1st class |
| Q32 | Q23.2Ad | Q41.2Ad | Q37F1 | Teaching assistant, 1st class |
|  | Q23.2Ba | Q41.2Ba | Q37A2 | Number of weeks taught, 2nd credit class |
|  | Q23.2Bb | Q41.2Bb | Q37B2 | Number of credit hours, 2nd class |
| Q32 | Q23.2Bc | Q41.2Bg | Q37C2 | Number of hours taught per week, 2nd class |
| Q32 | Q23.2Be | Q41.2Be | Q37D2 | Number of students, 2nd class |
| Q32 | Q23.3B | Q41.3B | Q37E2 | Primary level of students, 2nd class |
| Q32 | Q23.2Bd | Q41.2Bd | Q37F2 | Teaching assistant, 2nd class |
|  | Q23.2Ca | Q41.2Ca | Q37A3 | Number of weeks taught, 3rd credit class |
|  | Q23.2Cb | Q41.2Cb | Q37B3 | Number of credit hours, 3rd class |
| Q32 | Q23.2Cc | Q41.2Cg | Q37C3 | Number of hours taught per week, 3rd class |
| Q32 | Q23.2Ce | Q41.2Ce | Q37D3 | Number of students, 3rd class |
| Q32 | Q23.3C | Q41.3C | Q37E3 | Primary level of students, 3rd class |
| Q32 | Q23.2Cd | Q41.2Cd | Q37F3 | Teaching assistant, 3rd class |
|  | Q23.2Da | Q41.2Da | Q37A4 | Number of weeks taught, 4th credit class |

See notes at end of table.

Table D-2. Faculty Questionnaire Crosswalk: 2004—Continued

| Variable name |  |  |  | NSOPF:04 variable label |
| :---: | :---: | :---: | :---: | :---: |
| NSOPF:88 | NSOPF:93 | NSOPF:99 | NSOPF:04 |  |
|  | Q23.2Db | Q41.2Db | Q37B4 | Number of credit hours, 4th class |
| Q32 | Q23.2Dc | Q41.2Dg | Q37C4 | Number of hours taught per week, 4th class |
| Q32 | Q23.2De | Q41.2De | Q37D4 | Number of students, 4th class |
| Q32 | Q23.3D | Q41.3D | Q37E4 | Primary level of students, 4th class |
| Q32 | Q23.2Dd | Q41.2Dd | Q37F4 | Teaching assistant, 4th class |
|  | Q23.2Ea | Q41.2Ea | Q37A5 | Number of weeks taught, 5th credit class |
|  | Q23.2Eb | Q41.2Eb | Q37B5 | Number of credit hours, 5 th class |
| Q32 | Q23.2Ec | Q41.2Eg | Q37C5 | Number of hours taught per week, 5 th class |
| Q32 | Q23.2Ee | Q41.2Ee | Q37D5 | Number of students, 5 th class |
| Q32 | Q23.3E | Q41.3E | Q37E5 | Primary level of students, 5th class |
| Q32 | Q23.2Ed | Q41.2Ed | Q37F5 | Teaching assistant, 5th class |
|  | Q24Ae | Q42b | Q38A | Undergrad class, multiple choice midterm/final exams |
|  | Q24Af | Q42c | Q38B | Undergrad class, essay midterm/final exams |
|  | Q24Ag | Q42d | Q38C | Undergrad class, short answer midterm/final exams |
|  | Q24Ah | Q42e | Q38D | Undergrad class, term/research papers |
|  | Q24Ai | Q42f | Q38E | Undergrad class, multiple drafts of written work |
|  | Q24Ac |  | Q38F | Undergrad class, oral presentations |
|  |  |  | Q38G | Undergrad class, group projects |
|  | 24Ad | 42a | Q38H | Undergrad class, student evaluations of each others^ work |
|  |  |  | Q38I | Undergrad class, laboratory/shop/studio assignments |
|  |  |  | Q38J | Undergrad class, service learn/co-op interactions with business |
|  |  | Q43 | Q39 | Website for any instructional duties |
|  |  | Q47 | Q41 | Hours per week, e-mailing students |
|  |  | Q49a-c | Q46 | Individual instruction, any |
| Q33 | $\begin{aligned} & \text { Q25.1A + } \\ & \text { Q25.2A } \end{aligned}$ | Q49a | Q47A1 | Individual instruction, number undergraduate students |
| Q33 | Q25.3A | Q49b | Q47A2 | Individual instruction, number graduate students |
| Q33 | Q25.3A | Q49c | Q47A3 | Individual instruction, number first-professional students |
| Q33 | $\begin{aligned} & \text { Q25.1B + } \\ & \text { Q25.2B } \end{aligned}$ | Q49a | Q47B1 | Individual instruction, hours with undergraduates |
| Q33 | Q25.3B | Q49b | Q47B2 | Individual instruction, hours with graduate students |
| Q33 | Q25.3B | Q49c | Q47B3 | Individual instruction, hours with first-professional students |
|  |  | Q32 | Q48 | Hours per week, thesis/dissertation committees |
|  |  | Q63 | Q49 | Hours per week, administrative committees |
|  |  | Q50 | Q50 | Hours per week, with advisees |
|  | Q26 | Q51 | Q51 | Hours per week, office hours |
| Q30 | $\begin{aligned} & \text { Q20.1A + } \\ & \text { Q20.3A } \end{aligned}$ | Q29.1 | Q52AA | Career articles, refereed journals |
| Q30 | $\begin{aligned} & \text { Q20.2A + } \\ & \text { Q20.4A } \end{aligned}$ | Q29.2 | Q52AB | Career articles, nonrefereed journals |
| Q30 | $\begin{aligned} & \text { Q20.5A + } \\ & \text { Q20.6A } \end{aligned}$ | Q29.3 | Q52AC | Career book reviews, chapters, creative works |
| Q30 | $\begin{aligned} & \text { Q20.8A + } \\ & \text { Q20.7A } \\ & \text { Q20.9A+ } \\ & \text { Q20.10A } \end{aligned}$ | Q29.4 | Q52AD | Career books, textbooks, reports |

See notes at end of table.

Table D-2. Faculty Questionnaire Crosswalk: 2004—Continued

| Variable name |  |  |  | NSOPF:04 variable label |
| :---: | :---: | :---: | :---: | :---: |
| NSOPF:88 | NSOPF:93 | NSOPF:99 | NSOPF:04 |  |
| Q30 | Q20.11A | Q29.5 | Q52AE | Career presentations |
| Q30 | Q20.12A | Q29.5 | Q52AF | Career exhibitions, performances |
| Q30 | $\begin{aligned} & \text { Q20.13A + } \\ & \text { Q20.14A } \end{aligned}$ | Q29.6 | Q52AG | Career patents, computer software |
| Q30 | $\begin{aligned} & \text { Q20.1B + } \\ & \text { Q20.3B } \end{aligned}$ | Q29.1 | Q52BA | Recent articles, refereed journals |
| Q30 | $\begin{aligned} & \text { Q20.2B + } \\ & \text { Q20.4B } \end{aligned}$ | Q29.2 | Q52BB | Recent articles, nonrefereed journals |
| Q30 | $\begin{aligned} & \text { Q20.5B + } \\ & \text { Q20.6B } \end{aligned}$ | Q29.3 | Q52BC | Recent book reviews, chapters, creative works |
| Q30 | $\begin{aligned} & \text { Q20.8B + } \\ & \text { Q20.7B + } \\ & \text { Q20.9B + } \\ & \text { Q20.10B } \end{aligned}$ | Q29.4 | Q52BD | Recent books, textbooks, reports |
| Q30 | Q20.11B | Q29.5 | Q52BE | Recent presentations |
| Q30 | Q20.12B | Q29.5 | Q52BF | Recent exhibitions, performances |
| Q30 | $\begin{aligned} & \text { Q20.13B + } \\ & \text { Q20.14B } \end{aligned}$ | Q29.6 | Q52BG | Recent patents, computer software |
|  | Q28 | Q52 | Q53 | Scholarly activity, any |
|  | Q13 | Q15 | Q54VS | Scholarly activity, principal field-verbatim |
|  |  |  | Q52CD2 | Principal research field-general code |
|  | Q13 | Q15 | Q54CD4 | Principal research field-specific code |
|  | Q30 | Q54 | Q55 | Scholarly activity, any funded |
|  | Q29 | Q53 | Q56 | Scholarly activity, description |
| Q19 | Q39a | Q65a | Q61A | Satisfaction with authority to make decisions |
|  |  |  | Q61B | Satisfaction with technology-based activities |
|  |  |  | Q61C | Satisfaction with equipment/facilities |
|  |  |  | Q61D | Satisfaction with institutional support for teaching improvement |
| Q19 | Q40a | Q66a | Q62A | Satisfaction with workload |
| Q19 | Q40f | Q66g | Q62B | Satisfaction with salary |
| Q19 | Q40g | Q66h | Q62C | Satisfaction with benefits |
| Q19 | Q40i | Q66j | Q62D | Satisfaction with job overall |
| Q25 | Q46 | Q72 | Q64 | Retired from another position |
|  |  | Q74 | Q65 | Retire from all paid employment, planned age |
| Q40 | Q47a | Q76a | Q66A | Amount of income from basic salary from institution |
| Q40 | $\begin{aligned} & \text { Q47c + } \\ & \text { Q47d + } \\ & \text { Q47f } \end{aligned}$ | Q76b | Q66B | Amount of income from other income from institution |
| Q40 | Q47g | Q76d | Q66C | Amount of income from other academic institution |
| Q40 | Q47i | Q76g | Q66D | Amount of income from consulting or freelance work |
| Q40 | Q47n | Q76e | Q66E | Amount of income from other employment |
| Q40 | $\begin{aligned} & \text { Q47h + } \\ & \text { Q47j + } \\ & \text { Q47k }+ \\ & \text { Q471 + } \\ & \text { Q47m + } \\ & \text { Q47p + } \\ & \text { Q47q } \end{aligned}$ | Q76f + <br> Q76h + <br> Q76i + <br> Q76j + <br> Q76k + <br> Q76m + <br> Q76n | Q66F | Amount of income from other unspecified sources |

See notes at end of table.

Table D-2. Faculty Questionnaire Crosswalk: 2004—Continued

| Variable name |  |  |  | NSOPF:04 variable label |
| :---: | :---: | :---: | :---: | :---: |
| NSOPF:88 | NSOPF:93 | NSOPF:99 | NSOPF:04 |  |
|  |  |  | Q66B2 | Amount of total individual income (range) |
|  | Q47B | Q75b | Q67 | Type of contract, length of unit |
|  |  | Q75b | Q68 | Income paid per course/credit unit or term |
|  |  |  | Q69 | Amount of income paid per course/credit unit or term |
|  | Q49 | Q79 | Q70A | Amount of total household income |
|  |  |  | Q70B | Amount of total household income (range) |
| Q41 | Q51 | Q81 | Q71 | Gender |
| Q42 | Q52 | Q82 | Q72 | Age, year of birth |
| Q43 | Q54 | Q83 | Q73 | Race/ethnicity, Hispanic/Latino |
| Q44 | Q53_1 | Q84 | Q74A | Race, American Indian or Alaska Native |
| Q44 | Q53_2 | Q84 | Q74B | Race, Asian |
| Q44 | Q53_3 | Q84 | Q74C | Race, Black or African American |
| Q44 | Q53_2 | Q84 | Q74D | Race, Native Hawaiian or other Pacific Islander |
| Q44 | Q53_4 | Q84 | Q74E | Race, White |
|  |  | Q85 | Q75 | Disability, any |
| Q45 | Q55 | Q87 | Q77 | Marital status, fall 2003 |
|  |  |  | Q79 | Dependent children, number |
|  | Q56 | Q89 | Q80 | Born in United States |
| Q46 | Q57 | Q90 | Q81 | Citizenship status |
|  |  |  | Q82A | Opinion: teaching is rewarded |
|  |  |  | Q82B | Opinion: part-time faculty treated fairly |
| Q48 | Q59e | Q92f | Q82C | Opinion: female faculty treated fairly |
| Q48 | Q59f | Q92g | Q82D | Opinion: racial minorities treated fairly |
|  | Q59g | Q92h | Q83 | Opinion about choosing an academic career again |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04), 1999 National Study of Postsecondary Faculty (NSOPF:99), 1993 National Study of Postsecondary Faculty (NSOPF:93), 1988 National Survey of Postsecondary Faculty (NSOPF:88).

Appendix D. Item Crosswalks

## Appendix E <br> Endorsements

## NSOPF Endorsements

American Association for Higher Education<br>American Association of Collegiate Registrars and Admissions Officers<br>American Association of Community Colleges<br>American Association of State Colleges and Universities<br>American Association of University Professors<br>American Council on Education<br>American Federation of Teachers<br>Association for Institutional Research<br>Association of American Colleges and Universities<br>Association of Catholic Colleges and Universities<br>Career College Association<br>The Carnegie Foundation for the Advancement of Teaching<br>College and University Professional Association for Human Resources<br>The College Board<br>The College Fund/UNCF<br>Council of Graduate Schools<br>The Council of Independent Colleges<br>Hispanic Association of Colleges and Universities<br>National Association of College and University Business Officers<br>National Association for Equal Opportunity in Higher Education<br>National Association of Independent Colleges and Universities<br>National Association of State Universities and Land-Grant Colleges<br>National Association of Student Financial Aid Administrators<br>National Education Association

Appendix E. Endorsements

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Appendix F. Contacting Materials

## CHIEF ADMINISTRATOR LETTER

August 12, 2003

## NSoFaS Endorsed by

American Association for Higher Education

American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges

American Association of State Colleges and Universities

American Association of University Professors

American Council on Education

American Federation of Teachers

Association for Institutional Research

Association of American Colleges and Universities

Association of Catholic Colleges and Universities

Career College Association
The Carnegie Foundation for the Advancement of Teaching

College and University Professional Association for Human Resources

The College Board
The College Fund/UNCF
Council of Graduate Schools
The Council of Independent Colleges

Hispanic Association of Colleges and Universities

National Accrediting
Commission of Cosmetology
Arts and Sciences
National Association of College and University Business Officers

National Association for Equal Opportunity in Higher Education

National Association of Independent Colleges and Universities

National Association of State
Universities and
Land-Grant Colleges
National Association of
Student Financial Aid
Administrators
National Education
Association
<CHIEF ADMIN NAME>
<ADDR 1>
<ADDR 2>
<CITY STATE ZIP>
Your IPEDS UNITID:
Your password:
Dear $<$ NAME $>$ :
<INSTITUTION NAME> has been selected to participate in the 2004 National Study of Faculty and Students. The Higher Education Act (Sec. 131 (d), as amended in 1998) authorizes the U.S. Department of Education, National Center for Education Statistics (NCES) to periodically gather information from students, faculty, and instructional staff on two pivotal areas of national concern:

- How do students and their families finance education after high school?
- Who teaches in our colleges and universities, and how do they conduct their work?

In response to the continuing need for these data, information was collected from students in 1987, 1990, 1993, 1996, and 2000 as part of the National Postsecondary Student Aid Study (NPSAS). Data on full- and part-time faculty and instructional staff were collected for the National Study of Postsecondary Faculty (NSOPF) in 1988, 1993, and 1999. NCES has contracted with RTI International (RTI) to conduct the next data collection cycle for both studies under the 2004 National Study of Faculty and Students (NSoFaS:04) in order to minimize the reporting burden to postsecondary institutions. Additional information about our plans for NSoFaS:04 is provided in the enclosed materials, which include an NSoFaS brochure and copies of the brochures that participating students or faculty will receive.

Your institution's participation is crucial to the success of NSoFaS:04. I am writing to request that you appoint an NSoFaS coordinator to oversee the preparation of lists of faculty/instructional staff and students at your institution. The NSoFaS coordinator will also complete a brief questionnaire on the Internet about your institution's policies and procedures related to faculty and instructional staff. We will use the lists prepared by your institution to draw samples of faculty/instructional staff and students for participation in the 2004 NSOPF and NPSAS data collection cycles, respectively. Sampled faculty and students will be asked to complete a questionnaire on the Internet.

The individual whom you designate as coordinator should be someone (such as the Director of Institutional Research) who is familiar with data and information sources at your institution. If you require assistance with selecting an appropriate coordinator, you may call the NSoFaS Help Desk at 1-866-NSOFAS4 (1-866-676-3274, toll-free).

We are aware that you and the staff at your institution are confronted with many competing demands for your time. Therefore, we are providing you-and the coordinator you designate-with this advance notice of the study to allow you adequate time to plan for this data collection effort and, if needed, to contact us for more information prior to the start of data collection in the fall 2003/2004 term. Once designated, an RTI representative will contact your coordinator to discuss the study timeline and procedures required for your institution. Your coordinator will also be provided with a complete summary of our data request for the NPSAS and NSOPF components of NSoFaS.

All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose, unless otherwise compelled by law. The enclosed pamphlets detail our data collection procedures and provide a full description of the laws and procedures safeguarding the confidentiality of questionnaire responses, contact information, and other data. Additional information, including reports based on data from previous NSOPF and NPSAS studies, is available on the NSoFaS web site: https://surveys.nces.ed.gov/nsofas2004

If you have any questions about the study or procedures involved, please contact the RTI Project Coordinator, Brian Kuhr, at 1-866-676-3274 or via e-mail at nsofas2004@rti.org. You may also direct questions to NCES by contacting James Griffith at 1-202-502-7387 (e-mail address: James.Griffith@ed.gov) or Linda Zimbler at 1-202-502-7481 (e-mail address: Linda.Zimbler@ed.gov).

At your earliest convenience, please complete the NSoFaS Designate a Coordinator form online at the NSoFaS web site, using the IPEDS UNITID and password printed on the first page of this letter.

We look forward to your participation in this important study. Thank you for your cooperation and prompt completion of the NSoFaS Designate a Coordinator form.

Sincerely,

C. Dennis Carroll, Ph.D. Associate Commissioner Postsecondary Studies Division

[^40]The NSoFaS Designate a Coordinator form may be completed online at
https://surveys.nces.ed.gov/nsofas2004

To access the online form, enter the user name (which is your IPEDS UNITID) and password printed on the first page of this letter.

## INSTITUTION COORDINATOR EARLY CONTACTING LETTER

## NSoFaS

 Endorsed byAmerican Association for Higher Education

American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges

American Association of State Colleges and Universities

American Association of University Professors

American Council on Education

American Federation of Teachers

Association for Institutional Research

Association of American Colleges and Universities

Association of Catholic Colleges and Universities

Career College Association
The Carnegie Foundation for the Advancement of Teaching

College and University Professional Association for Human Resources

The College Board
The College Fund/UNCF
Council of Graduate Schools
The Council of Independent Colleges

Hispanic Association of Colleges and Universities

National Accrediting Commission of Cosmetology Arts and Sciences

National Association of College and University Business Officers

National Association for Equal Opportunity in Higher Education

National Association of Independent Colleges and Universities

National Association of State Universities and
Land-Grant Colleges
National Association of Student Financial Aid Administrators

National Education Association

## <DATE>

<COORD NAME>
<ADDR 1>
<ADDR 2>
<CITY STATE ZIP>

## Your IPEDS UNITID:

Your PASSWORD:
Dear < NAME>
<INSTITUTION NAME> has been selected to participate in the 2004 National Study of Faculty and Students. The Higher Education Act (Sec. 131 (d), as amended in 1998) authorizes the U.S. Department of Education, National Center for Education Statistics (NCES) to periodically gather information from students, faculty, and instructional staff on two pivotal areas of national concern:

- How do students and their families finance education beyond high school?
- Who teaches in our colleges and universities, and how do they conduct their work?

In response to the continuing need for these data, information was collected from students in 1987, 1990, 1993, 1996, and 2000 as part of the National Postsecondary Student Aid Study (NPSAS). Data on full- and part-time faculty and instructional staff were collected for the National Study of Postsecondary Faculty (NSOPF) in 1988, 1993, and 1999. NCES has contracted with RTI International (RTI) to conduct the next data collection cycle for both studies under the 2004 National Study of Faculty and Students (NSoFaS:04) in order to minimize the reporting burden to postsecondary institutions. Additional information about our plans for $\mathrm{NSoFaS}: 04$ is provided in the enclosed materials, which include an NSoFaS brochure and copies of the brochures that participating students or faculty will receive.

The chief administrative officer of your institution has selected you as your institution's coordinator for NSoFaS:04. The enclosed materials detail your role and the role of your institution in this study and contain a timetable of major project activities. You will have four primary responsibilities for NSoFaS:04:

- Complete the Coordinator Response Form online at the NSoFaS web site, within the next few weeks, using the user name and password printed at the top of this letter. We will schedule data collection for your institution based on the information you provide. A facsimile of the Coordinator Response Form is included in the attached folder.
- Oversee the preparation of two data files: (1) a list of faculty and instructional staff and (2) an enrollment list of students at your institution. These data files will be used to draw samples of faculty/instructional staff and students for participation in NSoFaS:04. Sampled faculty and students will be asked to complete a questionnaire on the Internet.
- Complete a separate web-based program requiring institution record information for a sample of
students.

NSoFaS:04 will begin in September 2003. At that time, complete instructions for your institution's participation will be sent directly to you. In the meantime, please review the enclosed materials at your earliest convenience.

We are aware that you and other staff at your institution are confronted with many competing demands for your time. We hope that giving you this advance notice of the study will provide you with ample time to plan for your school's participation in NSoFaS:04. A project representative will call you in the next few days to ensure that you have received this notification and to answer any questions that you may have. You may also call the NSoFaS Help Desk directly at 1-866-NSOFAS4 (1-866-676-3274).

All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose, unless otherwise compelled by law. The enclosed materials detail our data collection procedures and provide a detailed description of the laws and procedures safeguarding the confidentiality of questionnaire responses, contact information, and demographic data. Additional information, including reports based on data from previous NSOPF and NPSAS studies, is available on the NSoFaS web site:
https://surveys.nces.ed.gov/nsofas2004
If you have questions about the study or procedures, please contact the RTI Project Coordinator, Brian Kuhr, at 1-866-676-3274 or via e-mail at nsofas2004@rti.org. You may also direct questions to NCES by contacting James Griffith at 1-202-502-7387 (e-mail address: James.Griffith@ed.gov) or Linda Zimbler at 1-202-502-7481 (e-mail address: Linda.Zimbler@ed.gov).

## At your earliest convenience, please complete Coordinator Response Form online at the NSoFaS web site, using the IPEDS UNITID and password printed on the first page of this letter.

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

Sincerely,

C. Dennis Carroll, Ph.D. Associate Commissioner Postsecondary Studies Division

Enclosures

The NSoFaS Coordinator Response Form may be completed online at
https://surveys.nces.ed.gov/nsofas2004
To access the online form, enter the IPEDS UNITID and password printed on the first page of this letter.

## INSTITUTION COORDINATOR BINDER LETTER

## NSoFaS

Endorsed by
American Association for Higher Education

American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges

American Association of State Colleges and Universities

American Association of University Professors

American Council on Education
American Federation of Teachers
Association for Institutional Research

Association of American Colleges and Universities

Association of Catholic Colleges and Universities

Career College Association
The Carnegie Foundation for the Advancement of Teaching

College and University Professional Association for Human Resources

The College Board
The College Fund/UNCF
Council of Graduate Schools
The Council of Independent Colleges
Hispanic Association of Colleges and Universities

National Accrediting Commission of Cosmetology
Arts and Sciences
National Association of College and University Business Officers

National Association for Equal Opportunity in Higher Education

National Association of Independent Colleges and Universities

National Association of State
Universities and
Land-Grant Colleges
National Association of Student Financial Aid Administrators

National Education Association
$<$ DATE $>$
<COORD NAME>
<ADDR 1>
<ADDR 2>
<CITY STATE ZIP>
Your IPEDS UNITID:
Your PASSWORD:

Dear $<$ NAME $>$ :

As the person designated to be the Institution Coordinator for the 2004 National Study of Faculty and Students (NSoFaS:04) at your institution, you are receiving detailed instructions (see enclosed binder) to ensure your full participation in both the study's faculty and student components. We look forward to working with you on this important research effort, and are available to answer any questions you may have on how to carry out the coordination activities requested of you.

As described in materials provided during the early notification period of the study this past spring/summer, NSoFaS:04 is being conducted for the U.S. Department of Education's National Center for Education Statistics (NCES) by RTI International (RTI). This ongoing study, designed to collect data from nationally representative samples of postsecondary students and faculty and instruction staff, provides vital information on changes over time in two pivotal areas of national concern:

- How students and their families finance education after high school, and
- Who teaches in our colleges and universities and how they conduct their work.

In response to the continuing need for the data provided by NSoFaS, Congress has authorized NCES to collect these data periodically. Data on full- and part-time faculty and instructional staff were collected through the faculty component - the National Study of Postsecondary Faculty (NSOPF)-in 1988, 1993, and 1999. Information on students and student financial aid was previously collected in 1987, 1990, 1993, 1996, and 2000 as part of the student component - the National Postsecondary Student Aid Study (NPSAS).

Your institution has been sampled for participation in both the faculty and student components of NSoFaS:04. As the Institution Coordinator, you are asked to oversee the completion of the following activities for NSoFaS:04:

- Completion of the Coordinator Response Form (CRF) online at the NSoFaS web site, https://surveys.nces.ed.gov/nsofas2004/, using the IPEDS UNITID and password printed at the top of this letter. If you have already completed this document, a copy of the form may be printed from the web site after log in. A data collection timeline for your institution has been scheduled based on the information you provided. If you have not completed the CRF online, please do so at your earliest convenience. For reference, a facsimile of the CRF is included in the enclosed binder.
- Preparation of a complete data file listing all full- and part-time faculty, adjunct faculty, and instructional staff (including available contact and demographic information). The file should be current as of November 1, 2003, or the date at your institution when faculty rosters for the fall academic term are complete. [FOR INST THAT COMPLETED THE CRF AND HAVE INDICATED DATE OTHER THAN DEC 6]: <Information provided on the CRF indicates that you will send your faculty list to RTI on $<D A T E>$ [FOR NULL/DEC 6: The NSoFaS help desk will call to confirm the date at which we can expect your institution's list. It is important that we receive your institution's list prior to the end of the fall term, if possible.]
- Completion of the Institution Questionnaire online at the SoFaS web site. The questionnaire may be completed in multiple sessions; however, Question 1 (which asks for counts of full- and part-time faculty and instructional staff at your institution) should be answered at the time you send your list of faculty. A facsimile of the questionnaire is included in your binder. Please complete this questionnaire online by December 5, 2003, or by the date you submit your faculty list noted above if different.
- Preparation of a complete data file listing all students enrolled at your institution at any time between July 1, 2003, and April 30, 2004. Please refer to the enclosed NPSAS materials for a complete set of student eligibility criteria. Your list of students enrolled should be transmitted to RTI as early as possible. This data file will be used to draw a sample of students for participation in NPSAS. Sampled students will be asked to complete a questionnaire on our secured web site over the Internet. It is critical that we allow students ample time to respond before the end of the academic year. [FOR INST THAT COMPLETED A CRF: <Information provided on the CRF indicates that you will send the student list to RTI on $<D A T E>$. [ NO CRF/ UNKNOWN AFTER DATE: The NSoFaS help desk will call to confirm the date at which we can expect your institution's list.]
- Completion of a separate web-based computer-assisted data entry (webCADE) program that requires institution record information for those students who are sampled. This includes specific information on their enrollment status, financial assistance, and demographic characteristics. More details can be found in the enclosed binder.

All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical purposes and may not be disclosed or used, in identifiable form, for any other purpose, unless otherwise compelled by law. The enclosed materials detail our data collection procedures and provide a detailed description of the laws and procedures safeguarding the confidentiality of individual questionnaire responses, contact information, and demographic data. Additional sources of information, including reports based on data from previous NSOPF and NPSAS studies, are available on the NSoFaS web site: https://surveys.nces.ed.gov/nsofas2004/.

If you have questions about the study purposes or procedures, please contact either of us or Brian Kuhr, Project Coordinator, at 1-866-NSOFAS4 (1-866-676-3274) or via e-mail at nsofas2004@rti.org. You may also direct questions to NCES by contacting either James Griffith at 1-202-502-7387 (e-mail address: James.Griffith@ed.gov) or Linda Zimbler at 1-202-502-7481 (e-mail address: Linda.Zimbler@ed.gov).

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



Margaret Cahalan, Ph.D.
NSOPF Project Director

## Enclosures

Your institution's response to the National Study of Faculty and Students may be completed online at https://surveys.nces.ed.gov/nsofas2004/
To upload lists or other data collection forms, go to the login tab found on the home/login page. You will be prompted to enter the IPEDS UNITID and password printed on the first page of this letter.

## INSTITUTION REFUSAL CONVERSION LETTER

[^41]November 21, 2003
$<$ NAME $>$
<ADDR 1>
<ADDR 2>
$<$ CITY STATE ZIP>
Your IPEDS UNITID:
Your password:
Dear $<$ NAME $>$ :
I am writing to you again to urge your participation in the 2004 National Study of Faculty and Students (NSoFaS:04). Because your participation is so important to the success of NSoFaS:04, I have authorized assistance to your institution to facilitate its timely participation in NSoFaS:04.
The Higher Education Act (Sec. 131 (d)), as amended by the United States Congress in 1998, provides the U.S. Department of Education, National Center for Education Statistics (NCES) with the authority and a mandate to periodically gather data on the condition of postsecondary education in the United States. NSoFaS:04 plays an essential role in fulfilling this mandate.
NSoFaS:04 consists of two very important studies conducted by NCES: the 2004 National Study of Postsecondary Faculty (NSOPF:04) and the 2004 National Postsecondary Student Aid Study (NPSAS:04). The nationally representative sample for the two studies is selected from among all Title IV eligible institutions. To ensure representation of the entire range of postsecondary institutions in the nation, we count on cooperation from each of the sampled institutions. We are grateful for the outstanding cooperation that we have received in previous cycles of these studies. We urgently request your institution's participation in NSoFaS:04.

We are well aware that, especially under difficult economic conditions, postsecondary institutions have limited staff and resources to devote to participating in research studies, regardless of their importance. That is why we have instructed RTI International, NCES' contractor for NSoFaS:04, to provide your institution with the assistance necessary to accomplish the following:

- Provide a list of faculty and instructional staff employed by your institution as of November 1, 2003;
- Complete a brief Institution Questionnaire concerning your institution's policies and procedures regarding faculty;
- Provide a list of postsecondary students enrolled at your institution between July 1, 2003 and April 30, 2004; and
- Complete a student record abstraction form for a small number of students selected from the enrollment list.
To assist your institution in participating in the study, NCES has authorized RTI International to provide compensation for the staff and resources required by your institution to compile lists of faculty and students and associated documentation.

Moreover, if necessary, RTI will also arrange for one of its specially-trained staff to visit your institution and perform the record abstractions for sampled students.

Data collection for NSoFaS:04 is both authorized and protected by federal confidentiality laws, including the Family Education Rights and Privacy Act (FERPA). The small number of faculty and students sampled from the lists provided by your institution will be asked to participate in NSoFaS:04 by completing a questionnaire online or by telephone in a confidential and secure manner. We encourage you to review the additional information available about NSoFaS:04 at the following web site: https://surveys.nces.ed.gov/nsofas2004/

Both the Institution Questionnaire and secure uploads for faculty and student lists may be accessed at this site. The user name (IPEDS UNITID) and password required to access the forms and procedures for your institution are printed at the top of this letter.

Over the course of the next 2 weeks, a representative from RTI will be contacting you to discuss your needs and the best way to facilitate your institution's participation in NSoFaS:04. You may also contact Brian Kuhr, the Project Coordinator at 1-866-676-3274 or by e-mail at nsofas2004@rti.org to confirm your participation in the study and to request any necessary assistance in providing the data requested. You may direct questions to NCES by contacting James Griffith at 1-202-502-7387 (e-mail address: James.Griffith@ed.gov) or Linda Zimbler at 1-202-502-7481 (e-mail address: Linda.Zimbler@ed.gov).

Once again, thank you for your consideration.
Sincerely,

C. Dennis Carroll, Ph.D.

Associate Commissioner
Postsecondary Education Division

The NSoFaS forms may be completed online at
https://surveys.nces.ed.gov/nsofas2004/
To access the online form, enter the user name (which is your IPEDS UNITID) and password printed on the first page of this letter.

## The 2004 National Study of Faculty and Students <br> (NSoFaS:04) <br> COORDINATOR RESPONSE FORM (CRF) FACSIMILE

If you completed the CRF in spring/summer 2003, a report can be viewed and/or printed from the web site with your responses-specifically, the due dates established for submitting your list of faculty and instructional staff and/or list of students enrolled.

Follow the steps below to connect to the study's secure web site.

```
Connect browser to:
    https://surveys.nces.ed.gov/nsofas2004/
At the Home/Login page:
    Enter your unique IPEDS UNITID and password. }\mp@subsup{}{}{1
    Select the option View Coordinator Response Form Report. (Click on link.)
```

If you did not complete the form in spring/summer 2003, please review this facsimile and complete the CRF online as soon as possible upon receipt of this binder.

Follow the steps below to connect to the study's secure web site.

```
Connect browser to:
    https://surveys.nces.ed.gov/nsofas2004/
At the Home/Login page:
    Enter your unique IPEDS UNITID and password. }\mp@subsup{}{}{1
    Select the option Coordinator Response Form. (Click on button.)
```

If you are unable to complete the CRF online, you may complete the form by telephone. Please call the 2004 National Study of Faculty and Students (NSoFaS:04) Help Desk at 1-866-NSOFAS4 (1-866-676-3274). Staff members are available Monday through Friday, from 9 a.m. to 7 p.m. (Eastern Time). You will be able to immediately complete the information with a staff member or schedule an appointment to complete it at a more convenient time.

[^42]
## Coordinator Response Form

Your response to these questions will allow RTI to customize some of the systems on the NSoFaS web site with characteristics unique to your institution. This will make it easier for you and your staff to move through the various study components.

1. Institutions use different methods to account for a student's credits-that is, to track completion of required curricula, courses, or programs offered at that institution.

How are course/programs measured at your institution?

E Clock hours
[ Credit hours
[] Both
2. Institutions use a variety of structures to quantify the hours that are taken by a student during a calendar year or school year.

What calendar system is used at your institution?
[ Semesters
[ Quarters
[. Trimesters
[. 4-1-4
[ Differs by program
C Continuous/Open Enrollment
[. No standard terms

(NSoFaS:04)
3. Identify the names of each of the terms/enrollment periods (sometimes referred to as payment periods) that a student may enroll in between July 1, 2003, and June 30, 2004. Please include all terms, even those that may apply to special types of students (e.g., medical or MBA students). NOTE: SOME PORTION OF THE TERM MUST OCCUR BETWEEN JULY 1, 2003, AND JUNE 30, 2004, BUT MAY START PRIOR TO JULY 1 OR END AFTER JUNE 30.
After all the terms are added, please press the Continue button.

```
Add Term
```


## Please add a term.

Please enter the name of the term and the associated start and end dates.


## THIS AN EXAMPLE OF HOW QUESTION 3 MAY BE COMPLETED.

3. Identify the names of each of the terms/enrollment periods (sometimes referred to as payment periods) that a student may enroll in between July 1, 2003, and June 30, 2004. Please include all terms, even those that may apply to special types of students (e.g., medical or MBA students).
NOTE: SOME PORTION OF THE TERM MUST OCCUR BETWEEN JULY 1, 2003, AND JUNE 30, 2004, BUT MAY START PRIOR TO JULY 1 OR END AFTER JUNE 30.
After all the terms are added, please press the Continue button.

| Delete? | Term Name | Term start date | Term end date |
| :--- | :--- | :--- | :--- |
| $\square$ | First Summer | $6 / 6 / 2003$ | $7 / 15 / 2003$ |
| $\square$ | Second Summer | $7 / 21 / 2003$ | $8 / 8 / 2003$ |
| $\square$ | Fall 2003 | $8 / 28 / 2003$ | $12 / 6 / 2003$ |
| $\square$ | Spring 2004 | $2 / 10 / 2004$ | $5 / 5 / 2004$ |
| $\square$ | First Summer 2004 | $5 / 6 / 2004$ | $6 / 15 / 2004$ |
| Add Term | Delete selected Terms |  |  |

4. Identify institution grants and scholarships. Include only those institutional grants and scholarships paid out of institutional revenue, including restricted funds that originate from private donations or endowments. Do not include grants or scholarships funded by state or federal sources, even if the award decisions are made by institution staff. State grant program funds that are allocated to and awarded by your institution (instead of a centralized state grant system that makes awards to students) should not be included as institutional aid.

Please list up to 12 names of the most prevalent institution grants and scholarships awarded and indicate whether "need," "merit," or "both" is considered when making these awards.

[^43]Add Aw ard

## THIS IS AN EXAMPLE OF HOW QUESTION 4 MAY BE COMPLETED.

4. Identify institution grants and scholarships. Include only those institutional grants and scholarships paid out of institutional revenue, including restricted funds that originate from private donations or endowments. Do not include grants or scholarships funded by state or federal sources, even if the award decisions are made by institution staff. State grant program funds that are allocated to and awarded by your institution (instead of a centralized state grant system that makes awards to students) should not be included as institutional aid.

Please list up to 12 names of the most prevalent institution grants and scholarships awarded and indicate whether "need," "merit," or "both" is considered when making these awards.

| Delete? | Name of Award | Basis of Award Decision |
| :--- | :--- | :--- |
| $\square$ | Future Teachers of North Carolina Scholarship | BOTH |
|  |  |  |
| Add Aw ard | Delete selected Aw ards |  |



## WILL AUTOMATICALLY SKIP THIS QUESTION WHEN FORM IS COMPLETED ON WEB.

5. We would like to receive a list of faculty and instructional staff employed at your institution as of November 1, 2003. The table to the right depicts the data elements to be included on the list for each faculty and instructional staff member. We'd like to receive the list of faculty and instructional staff no later than December 5, 2003.

When will you be able to provide the list of faculty and instructional staff?
[
On or before December 5, 2003

## C

After December 5, 2003. (A project staff member will call to establish a specific date.)

## - CONTINUE

4 BACK

Faculty and Instructional Staff Data Elements

1. First Name
2. Middle Initial
3. Last Name
4. Name Suffix (e.g., Jr., Sr., III, etc.)
5. Employee ID
6. Race/Ethnicity
7. Gender
8. Employment Status
9. Academic Field
10. Campus Address 1
11. Campus Address 2
12. Campus City
13. Campus State
14. Campus Zip Code
15. Campus Telephone Number
16. Campus e-mail
17. Home Address 1
18. Home Address 2
19. Home City
20. Home State
21. Home Zip Code
22. Home Telephone Number
23. Home e-mail

THESE DATES ARE AN EXAMPLE OF HOW THE DATE FILLS IN BASED ON YOUR INSTITUTION'S RESPONSE TO QUESTION 4 ( IF ANY TERMS WERE ENTERED)
6. Please provide a list of all students enrolled at your institution. The table to the right depicts the data elements to be included on the list for each student. We'd like to receive the enrollment list as soon as possible. Based on the dates you provided for terms during the 2003-04 academic year, February 24, 2004, is 2 weeks after the beginning of the "Spring 2004" term, which is the last term with a start date that is on or before April 30, 2004.

When will you be able to provide the list of all students enrolled?

E
On or before February 24, 2004
[
After February 24, 2004. (A project staff member will call to establish a specific date.)

## - CONTINUE

## 4BACK

## Student Data Element

1. First Name
2. Middle Initial
3. Last Name
4. Name Suffix (e.g., Jr., Sr., III, etc.)
5. Student ID
6. Social Security Number
7. Educational Level
8. First Time Beginner
9. Local Address 1
10. Local Address 2
11. Local City
12. Local State
13. Local ZIP Code
14. Local Telephone Number
15. Campus e-mail
16. Permanent Address 1
17. Permanent Address 2
18. Permanent City
19. Permanent State
20. Permanent ZIP Code
21. Permanent Telephone Number
22. Permanent e-mail

## The 2004 National Study of Faculty and Students

(NSoFaS:04)
7. When RTI receives your list of students enrolled, a random sample will be selected. During the final stage of the study, you will enter specific data from sampled students' records pertaining to enrollment and financial aid status. NPSAS webCADE (a computer-assisted data entry Internet application) is the application developed to assist in your completing this stage. It will be available on the study web site once the sample has been selected. You will enter student data on this site using either Netscape $\mathbf{4 . 8}$ or higher or MS Internet Explorer 5.0 or higher with the following:

- 128-bit encryption. You may need to adjust your browser settings or download an update to activate 128-bit encryption.
- JavaScript enabled. JavaScript is the programming language of the interactive sections of our web site and must be enabled for many pages to work properly.
Will it be possible for you to use this software to provide the requested data?


E
No
[
Would like to discuss options with staff

## - CONTINUE

```
4 BACK
```


## OPTIONS AT END OF CRF

You have reached the end of this form. Please check the option that best describes how you would like us to proceed:

## C

Close completed form: You have completed all the information, including all terms, awards, and dates when we can expect your faculty list and your list of students enrolled. Checking this option means that you are submitting this form as final. If you later determine that you need to make modifications, please call 1-866NSOFAS4 (1-866-676-3274) or e-mail the changes to nsofas2004@rti.org.

## [

Keep form open for later completion: You have completed all or most of the information, including some terms, some awards, and dates when we can expect your faculty list and your list of students enrolled. Checking this option will allow you to continue accessing this form on the web until you are entirely satisfied that all information has been entered. NSoFaS staff may call you to offer their assistance.

## C

Provide assistance: You would like NSoFaS staff to call you to schedule a time to complete the items. Checking this option forwards an auto e-mail to nsofas2004@rti.org and a staff person will call to set an appointment for completing the Response Form with you over the telephone. A facsimile of the form was provided with your early notification packet to assist with preparation of your responses at that time.

```
- CONTINUE
```

4 BACK

## The $\mathbf{2 0 0 4}$ National Study of Postsecondary Faculty (NSOPF:04)

## GUIDANCE FOR PREPARING THE LIST OF FACULTY AND INSTRUCTIONAL STAFF

## Background

The list of faculty and instructional staff you provide will be used to randomly select a nationally representative sample of individuals in postsecondary institutions across the nation. To ensure a scientifically valid sample, it is extremely important that you follow the instructions provided in this document when preparing your institution's list. Because postsecondary institutions vary widely in their organizational structures and staffing configurations, we realize that some of the criteria presented below may not apply to your institution. Also, different institutions use different definitions for faculty and nonfaculty positions, temporary and permanent status, and full- and part-time staff. Please interpret the instructions and terms according to your institution's usage.

Note: The number of faculty and instructional staff reported in your lists should be consistent with the number of personnel reported in question 1 on the Institution Questionnaire Facsimile included in this mailing. Should you have any questions about classification of personnel, or whether they should or should not be in cluded on the list, we urge you to contact Brian Kuhr at:

* Phone: 1-866-NSOFAS4 (1-866-676-3274)
- E-mail: nsofas2004@ortiorg


## Eligibility Requirements

Include all faculty and instructional staff being paid by your institution as of November 1,2003, or the date at your institution when files of full- and part-time faculty and instructional staff are considered complete for the fall term. This includes the following categories of personnel on your list:

- All faculty, including any administrators, researchers, librarians, coaches, etc., who have faculty status at your institution, regardless of whether they have any instructional responsibilities; and
- All instructional staff, regardless of whether they have faculty status. (By "instructional staff." we mean staff members who are engaged in any instructional activities, such as teaching students in one or more credit or noncredit courses, advising students, or supervising students' academic activities.)


## Be sure to include:

- Faculty and instructional staff in all schools, including professional schools (e.g., medical, law, dentistry, etc.);
- Faculty and instructional staff who are permanent, temporary, adjunct, visiting, acting, or postdactoral appointeres;
- Faculty and instructional staff who are employed full or part time by the institution;
- Faculty and instructional staff who teach credit or noncredit classes;


## The 2004 National Study of Postsecondary Faculty (NSOPF:04)

- Faculty and instructional staff who are tenured, nontenured but on tenure track, or nontenured and not on tenure track;
- Faculty and instructional staff who interact with first-professional, graduate, or undergraduate students; and
- Faculty and instructional staff on paid sabbatical leave.


## Be sure not to include:

- Graduate or undergraduate teaching or research assistants;
- Faculty and instructional staff with instructional duties outside the United States, unless on sabbatical leave;
- Faculty and instructional staff on leave without pay;
- Faculty and instructional staff who are not paid by your institution, such as those in the military or part of a religious order; and
- Faculty and instructional personnel supplied by independent contractors or who volunteer their services, such as volunteer medical staff.


## Data Elements Required

For each eligible person on the list we will need the information listed in the accompanying Contact Information and File Layout for Creating the List of Faculty and Instructional Staff document. If you use other codes or another layout, please provide us with a detailed description of the codes and layout of your list.

## File Types

As detailed on the Contact Information and File Layout for Creating the List of Faculty and Instructional Staff document, you may choose to submit your list of faculty and instructional staff as an ASCII fixed-field file, a comma-delimited file, or an Excel spreadsheet. If you choose to use a different file type, please be sure to indicate its type and layout. If you have no option but to send your list in paper form, please send a single unduplicated list in which each faculty/ instructional staff member's name appears only once.

## CONTACT INFORMATION AND FILE LAYOUT FOR CREATING THE LIST OF FACULTY AND INSTRUCTIONAL STAFF

This document is in two sections. In the first section (pages 1 and 2), we ask you to provide the information requested for all individuals responsible for preparing your list of faculty and instructional staff. This information will be used only when we need to contact these individuals with questions regarding your list. The second section (page 3) provides details of our suggested file layout for creating your list. You may transmit this document to us via one of the following two modes:

- Select "Upload Faculty List" after logging in to the web at: https://surveys.nces.ed.gov/nsofas2004l
- Federal Express, using the airbill provided in the back pocket of this binder.

Should you have any questions, please call the NSoFaS Help Desk at: 1-866-NSOFAS4 (1-866-676-3274)

1. Institution Identification: Please provide the following information about your institution:
> Institution Name: $\qquad$
> Institution IPEDS UNITID ${ }^{1}$ : $\qquad$
2. Date: Please specify the date your faculty list was prepared ( $\mathrm{mm} / \mathrm{dd} / \mathrm{y} y \mathrm{yy}$ ): $\qquad$ 1 1
3. Contact Information: Please provide the following information for all individuals responsible for preparing your faculty list.

| Name | Department | E-mail Address | Telephone <br> Number |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

4. Counts of Full- and Part-time Faculty and Instructional Staff: As of November 1, 2003 (or during the fall term of the 2003-04 academic year when your faculty lists are considered complete), how many full-time and part-time faculty and instructional staff were employed by your institution? By faculty and instructional staff we mean any faculty plus any other employees with instructional responsibilities, regardless of whether or not they have faculty status. Please report the total number of
[^44]
## The 2004 National Study of Postsecondary Faculty (NSOPF:04)

persons (i.e., a headcount), rather than full-time equivalents (FTEs). Please report the number for each category; if none, write in " 0 ".

Note: These counts should match the answers you have provided (or will provide) for question 1 of the Institution Questionnaire.
> Full-time Faculty and Instructional Staff: Please specify the number of all full-time faculty plus any other full-time employees with instructional responsibilities:
> Part-time Faculty and Instructional Staff: Please specify the number of all part-time faculty plus any other part-time employees with instructional responsibilities:
5. Electronic File Type and Layout: Using the file layout specifications on the next page, please mark which of the following file types you will use to provide your list. If you choose to use a type or layout other than what is provided below, please be sure to specify its type and complete layout.
ASCII Fixed-field: Please use the suggested file layout provided on the next page.
> Comma-delimited: Please use a blank space for any missing data elements and use the data order and codes suggested in the layout provided on the next page.
$>$ Excel spreadsheets: Please properly label all columns and use the order and codes suggested in the layout provided on the next page.
$>$ Other (e.g., paper list): Please specify type and layout of your list (use additional pages if necessary):
6. Special Comments: In the space provided below, please tell us about any of the requested data items that you cannot provide. Also, please provide any additional details that would clarify the layout of the faculty list you are submitting, as well as any information necessary to correctly interpret the information provided (e.g., faculty designations, abbreviations, codes, etc.). Use additional pages if necessary.
$\qquad$
$\qquad$
$\qquad$

The 2004 National Study of Postsecondary Faculty (NSOPF:04)

## Faculty and Instructional Staff List Layout Specifications

| Data element | Codes | Column position |  |
| :---: | :---: | :---: | :---: |
|  |  | Starting | Ending |
| 1. First name |  | 1 | 25 |
| 2. Middle initial |  | 26 | 26 |
| 3. Last name |  | 27 | 51 |
| 4. Name suffix (e.g., Jr., Sr., III, etc.) |  | 52 | 54 |
| 5. Employee ID |  | 55 | 66 |
| 6. Race/ethnicity | 1 = White (not of Hispanic origin) <br> 2 = African American/Black (not of <br> Hispanic origin) <br> 3 = Hispanic <br> 4 = Asian or Pacific Islander <br> 5 = American Indian or Alaska <br> Native <br> 6 = Unknown Race/Ethnicity | 67 | 67 |
| 7. Gender | $\begin{aligned} & 1=\text { Male } \\ & 2=\text { Female } \\ & 3=\text { Unknown gender } \end{aligned}$ | 68 | 68 |
| 8. Employment status | 1 = Full-time <br> 2 = Part-time <br> 3 = Unknown employment status | 69 | 69 |
| 9. Department/program affiliation |  | 70 | 119 |
| 10. Campus address 1 |  | 120 | 169 |
| 11. Campus address 2 |  | 170 | 219 |
| 12. Campus city |  | 220 | 269 |
| 13. Campus state |  | 270 | 271 |
| 14. Campus ZIP code |  | 272 | 280 |
| 15. Campus telephone number |  | 281 | 290 |
| 16. Campus e-mail |  | 291 | 340 |
| 17. Home address 1 |  | 341 | 390 |
| 18. Home address 2 |  | 391 | 440 |
| 19. Home city |  | 441 | 490 |
| 20. Home state |  | 491 | 492 |
| 21. Home ZIP code ${ }^{1}$ |  | 493 | 501 |
| 22. Home telephone number ${ }^{1}$ |  | 502 | 511 |
| 23. Home e-mail |  | 512 | 561 |

${ }^{1}$ The field length for permanent ZIP code and telephone number allows for international ZIP codes and telephone numbers, respectively.

## TRANSMITTAL OPTIONS FOR THE LIST OF FACULTY AND INSTRUCTIONAL STAFF

## Please submit your list no later than December 5, 2003.

This document specifies the different file delivery options you can use to submit the requested list of faculty and instructional staff for your institution. We strongly encourage you to send us your list as an electronic file. However, if you are unable to provide an electronic file, we will accept paper lists as a last resort. Please note that information regarding eligibility definitions and the needed data items can be found in the following documents (located behind the NSOPF:04 tab in this binder):

- Guidance for Preparing the List of Faculty and Instructional Staff, and
- Frequently Asked Questions.

Please select from the following four transmittal options the one that is most appropriate for your institution. Regardless of the option you select, please also complete and transmit the Contact Information and File Layout for Creating the List of Faculty and Instructional Staff document to provide information about the list you will submit. Should you use a different file layout other than what we have suggested, please provide details of your file layout.

## I. Upload to the NSoFaS Web Site

You may upload your files directly to the web site for NSoFaS, located at:
https://surveys.nces.ed.gov/nsofas2004/. Simply click on "Upload List of Faculty and Instructional Staff" and follow the instructions on the screen. You will be instructed to provide the following information:

- Institution name and IPEDS UNITID;
- Your response to question 1 of the Institution Questionnaire;
- Contact information for the person who prepared the list; and
- File layout.


## II. Electronic Mail (e-mail to facultylist@rti.org)

You may choose to send your list of faculty and instructional staff as an attachment via electronic mail. In this case, please send your e-mail to RTI at: facultylist@rti.org. Be sure to separately transmit your completed electronic copy of the Contact Information and File Layout for Creating the List of Faculty and Instructional Staff document found on the web site. Please do not send questions to this address.

## III. Diskette, Zip Disk, or CD-ROM

You can write your faculty list to diskette, Zip disk, or CD-ROM and mail it to RTI using the enclosed prepaid Federal Express airbill (in pocket at end of binder), along with a completed copy of the Contact Information and File Layout document for each list. Please identify all materials (diskette, Zip disk, CDROM, and file layout) that you send to RTI with the IPEDS UNITID for your institution.

## IV. Paper List

If possible, we would greatly appreciate it if you did not use this option. However, if you cannot provide an electronic list of your faculty and instructional staff, paper lists may be mailed to RTI using the enclosed, prepaid Federal Express airbill. Please attach one of the enclosed labels to the list and file layout document you send to RTI. See instructions for completing the airbill on the following page.

If you need assistance, call the NSoFaS Help Desk at 1-866-NSOFAS4 (1-866-676-3274).

## The 2004 National Study of Postsecondary Faculty

 (NSOPF:04)When sending a diskette, Zip disk, CD-ROM, or hard copy of the list of faculty and instructional staff, use the standard Federal Express airbill enclosed in the pocket at the end of this binder. Follow the instructions below.


ITEM 1:
Fill in Date, Sender's Name, Phone, Company, Address, City, State, and ZIP Code.
ITEM 2:
Your Internal Billing Reference Information will be 08xxx.xxx.xxx for the list of faculty and instructional staff.

ITEM 3:

| ON AIRBILL | TO BE ENTERED |
| :--- | :--- |
| Recipient's Name: | Linda Rattelade |
| Phone: | (919) 541-8984 |
| Company: | RTI International |
| Address: | 1000 Parliament Ct., Suite 100 |
| City: | Durham |
| State: | NC |
| ZIP Code: | $27703-8464$ |

ITEM 4a:
Please mark FedEx Priority Overnight.

## ITEM 5:

Indicate the type of package/letter you are sending.
ITEM 7:
Please check Third Party and use FedEx Account No. 15xxxxxxxx.


## The quality and affordability of postsecondary

 education are vital concerns for students and their families. That is why the information gathered by the 2004 National Study of Faculty and Students (NSoFaS:04) is so important. The student component explores how families with varying resources are able to pay for education after bigb school and provides comprehensive data on the enrollment status, education goals, employment, and demograpbic characteristics of postsecondary students. The faculty component provides critical data on those individuals who are most pivotal to a quality educationfaculty and instructional staff-including information on their training, experience, and duties, as well as the key policy issues affecting them and their work.
## Basic Issues

National Study of Postsecondary Faculty (NSOPF)
NSOPF responds to the continuing need for data on posssecondary faculty and instructional staff-those who directly affect the quality of edacation in postsecondary institutions. Research questions that
can be studied using the data from NSOPF include the following:


- How many full- and part-time faculyy and instructional staff are there?
- What are their hackground characteristics?
- What are their workloads, and how is their time allocated between classroom instruction and other activities?
- What are the current teaching practices and uses of technology among postsecondary faculty and instructional staft:

National Postsecondary Student Aid Study (NPSAS)
NPSAS data provide information on the cost of postsecondary education. the distribution of financial aid, and the characteristics of both aided and nonaided stedents and their families. Research questions that can be studied using the data from NPSAS include the following:

- What is the "net price" of education to the stadent and family?
- How is student "need" for financial aid being met?
- How much are students borrowing?
- How does the distribution of aid differ by major field of study?
- What are the characteristics of students beginning their postsecondary education in 2004, and bow many of them persist in possecondary education?


## Data Analysis and Dissemination

To make the data as useful as possible, the National Center for Education Seatisios (NCES) will publish information in several ways:

- Descriptive reports are published by NCES on selected topics. Pablications from previous NSOPF and NPSAS studies may be accessed electronically through NCES's web sites at

- Special tabulations are provided on request.
- Dasa files (without identifying information) are aviilable.
- Presentations on study findings are made at conferences.


## How Will the Study Be Conducted?

NSoFaS is sponsored by NCES and conducted under contract with RTI International (RT1). RTI is a nonprofit resarch organization with headquarters in North Carolina.
NSoFaS.04 begins with the contacting of postsecondary institutions in March 2003 to provide carly notification of their sclection in the study and to initite coordination of the various study components. About 1,100 institutions will be sampled for both NSOPF and NPSAS, while another 500 will be asked to parricipare only in NPSAS.
The collection of information from student records and intervicwing of faculty and students will take place in 2004, reflecting the 2003-2004 academic year. However, experience from prior NPSAS and NSOPF sudies tells us that institutions would weloome information carlier in the process to enable them to better coordinate staff and resources in completing the requirements of this study. Feccause over 1,600 postsecondary institutions, about 120,000 students, and 35,000 faculy/finstructional staff will be a part of this national study, timeliness at every step in the process is critical to its success. These activities may differ somewhat according to your type of institurion and method of record keeping. The study will consist of the following stages:
Winter 2002/Spring 2003

- Beginning in March 2003, the chief adminiturative officer (CAO) at each institution will be akked
to designate an NSoFaS:04 institutional coorlinator(s) to work with RTT.
- Beginning in March 2003, RTI mill contace the inatitutional coordinator(3) to clanily the tado. timeline, and repponsibilities. They will be akked to complese a brief "repponse form" on the Web at hupsolhumgsacessdgovinvofia2004 that ilentifies the 2003-2004 serms and types of awadt grantel by the institution.
- RTI will peovide updates droughoot the speing and wimmer of 2003 to the insuitutional coordinator and Fall 2003
- In September 2003, a set of detailed muterials will be sent by RT7 to all instiutional conedinuton
- By November 2003, the instinutional cooedinutor (for those 1,100 insuitutioes participating in NSOPFfaculy component) of other designuted staff will complete a web-bused quationnaire aboat institutional policies/pactices related to ficulty and instructional staff at their inastitution.
- By December 5, 2003, the instinstional cooedinasor (NSOPF-Gaculy component) will supphy RTI with a list of faculy and instructional staff.


## Winter 2003 (early 2004)

- By mid-Decormber 2003, KTI will begin selecting samples from the lists of faxulcy and instruxtional staff semt
- By late Jamuary 2004, ampled faculy and instructional saff will begin completing a web-based or telephone terview.
- Beginning January 2004, the imexitutional coardinator (for cadr of the 1,600 inatitutions participating ie NPSAS-student component) will supply RTI with a list of sudenss enrolled at the institution. The list will include contacr and bauc demographic information for students caroled at the institution during any term that includes July 1. 2003, through April 30, 2004
- Beginning mid-Febraary 2004 , RII will select samples of nudens from each eneollment live received.

Spring 2004

- Beginning Manch 2004, the instinutional coondinator or other decignated saff will provide suident recoed information (eg, cmollment statas, majos, ad package rectived), for only those exulents sumpled at the (NPSAS), RTI fied staff will be wailuble to provide assistance with the studest recoed abstraction phase.
- Beginning in Manch 2004, sampled stadents will complete web-based or telephone interview.

Web-based data eatry applications have been developed to facilizate participution and to minimise the bardert on instintional staff in providing the data. The soffrare is user friendly and efficient.

## Confidentiality Issues

The National Education Statistics Act (NESA) of 1994, as amended by the USA PATRIOT Act of 2001, authoriza NCES to collect and disseminate information about education in the United States. Callection is most often done through survers. This Act, which incorporates and expands upon the Privacy Act of 1974, requires strict procedures to protect the confidentiality of perons in the collection, reporting, and publication of data. The Family Education Rights and Privacy Act of 1974 (FERPA) ( 20 U.S.C. 1232 g ) allows for the relcase of institutional record information to the Secretary of Education or his agent without prior consent of survey member [20 U.S.C. $1232 \mathrm{~g}(\mathrm{~b})(3)$ ]. RTI International, as the contractor for NCES, has been given the authority to collect information from institational records under the provisions of NESA.

All responses that relate to or describe identifiable characteristics of individuals may be used only for statistical parposes and mxy not be divelosed or used in identifable form for any other purpose, unless othervise compelled by law.

Protection of Electronic Files
All electronic files from institution records and stodent, faculy, and instructional staff interview will be carefully protected. Computer accounts used to access data will be password protected with multilevel access controls to ensure that only those individuals with a need to access confidential information are allowed access to it. For the web-based data collection, proven methods of protection for online sessions and data security over the Internet will be used. Secure Sockets Layer (SSL) protosol will be used to enerypt the data over the Internet. All of the data entry modules on this site will be password protected, which will require the user to log in to the site before accessing confidential data. The system will automatically log the user out after 30 minutes of inactivity on the session, which will prevent unsuthorixed user aceess to the site.

## Protection of Paper Records

All puper records will be maintained in locked storage cabinets. A unique study identification variable (not the Social Security Number or school ID) will be created and maintained for each survey participant to protect against discloxure of confidential data.

Preparation of Data for Public Release
All data relesed to the general public (for example, statistical tables) will be designed so that it will nor be possible to identify specific individuals.

## Violations

All personnel with access to individual data will be required to sign a confidentiality agreement and an affidavit of nondisclosurc. Anyone who violates the confidentiality prowisions of the act when using the data shall be found guilty of a Class $\mathbf{E}$ felony and can be imprisoned up to 5 years, and/or fined up to $\$ 250,000$.

## Endorsements

American Association for Higher Education
American Association of Collogiate Registrars and Admissions Officers
American Association of Community Colloges
American Association of Sate Collg ges and Universities
Anverican Association of University Professors
American Council on Education
American Federation of Teachers
Association for Institutional Research
Association of American Colloges and Universities
Association of Catholic Colloges and Universities
Carrer Collcge Association
The Carnegic Foundation for the Advancentent of Teaching
Colloge and University Professional Association for Haman Resources
The Colloge Board
The College FinudUNCF
Council of Graduate Schools
The Council of Independent Collgges
Hispanic Association of Colloges and Universities
National Accrediting Commission of Cosmetology Arts ơ Sciences NRSAS amby National Association of College and University Business Officers
National Association for Equal Opportunity in Higher Education
National Association of Independent Colleges and Universities
National Association of State Universities and Land-Grant Colleges
National Association of Student Financial Aid Administrators
National Education Association

## About the Study

## The 2004 National Study of Faculty and Students NSoFaS:04

NCES, part of the U.S. Department of Education, is authorized by fedcral law to collect, analyzs, and publish statistics and other data related to education in the United Stares and other nations. As part of its program, NCES conducts large national surveys involving students enrolled in, and faculty and instructional staff employed by, postsecondary institutions. Two of these studies, the National Study of Postsecondary Faculty (NSOPF) and the National Postsecondary Seadent Aid Seudy (NPSAS), will be conducted together in 2004 as NSoFaS to realize efficiencies and reduce overall burden associated with institutional participation.

NSOPF is the major source of comprehensive information about faculty and insructional staff. It includes a nationally representative sample of full- and part-time faculty and instructional staff at public and private not-for-profit 2 - and 4 -year institutions in the United States. Previous NSOPF studies are widdy recognized resources for researchers and policymakers in postsecondary education. This fourth cycle of NSOPF will expand the information about faculty and instructional staff in two important ways: (1) by allowing for comparivons to be made over an extended period of time, and (2) by examining critical issues concerning faculy and instructional staff that may have developed since the last study.

NPSAS is the only comprehensive, nationally representative survey of student financial aid. No other single national duabase contains suden-levd records for stadents receiving aid from the numerous and disparate programs funded by the federal government, the states, possecondary institutions, employers, and private organizations. The purpose of NPSAS is to compile a comprehensive research data set that contains information abour all of these programs, together with demographic and entollment data. In addrition, NPSAS provides vital informatogether with demographicy and entonlment die affordability of possecondary education and the effectiveness of existing financial aid programs that will inform public policy at all levels. NPSAS not only indudes studenes cnrolled at public and private not-for profit, 2- and 4-ycar possecondary institutionss it also includes those possecondary institutions that are less-than-2-year and are private for-profir. NPSAS provides comprehensive data on undergraduate, graduate, and first-professional students-including those who reccive aid and those who do not,

## dorsements

ie following organizations recognice the sudy? utribution to the body of knouledge about esecondary faculty and insmacional saff and have doned NSOPE:04.

American Associstion for Higher Elducation American Association of Collegiane Registrass and Admissions Officen
American Assocation of Community Colloges American Association of Sate Colloges and Universinies
American Associution of University Professors Amserican Council on Education
American Federaion of Teaches
Aswcimion for Invinutional Research
Aswciation of American Colleges and Univessitie Asweciamion of Catholic Colleges and Univervities Career College Asociation
The Carnegie Foundation for the Advancemen of Testhing
College and Univeniry Professional Aswociation for Human Resoarce
The College Board
The College Fund UNCF
Council of Gradume Schools
The Council of Independens College
Hispanic Association of Colleges and Universities National Association of College and Univenity Basiness Officers
National Association for Equal Opportuniry in Highler Education
Naxional Association of Independent Colleges and Universities
National Assocurion of Suse Univenitie and Land-Grant Colleges
National Association of Scudent Finuncal Aid Adminisrraton
National Education A wexciation

## Confidentialit







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TNCES 2004
National
Study ASSOR

Of
Postsecondary Faculty

## U.S. Department of Iducation

 NCFS 2004-151

## Study Design

The National Center for Education Stanites ( NCP is condacting the fourth cyde of the Narional Seady f Postrecondary Faculty (NSOPF) wo ropond to the ritical seed for information on faculy and instros-on-those who direaly affeca the qualiry of edicari in ponsecondury imuitutions in the Unired Sates
Faculky members and instructional vaff are pivoul to a quality postsecondary educision. Tbry dectumine curriculum conemt, student performunce standurith ind the quality of sudenes' prepataion for careen: Foulty members perform reseurch and development work upon which mach of this nations rechnologic and economic adrancement depende. Through their public service activities, they alw contribute to the ablic good. For these rewons, is is imporant for exemocherv and poligymbers to underuand who faci wre, whur they do, and if and how their roles are hunging over time.

Previous sudies condacied in 1988, 1993, and 199 (called NSOPF:88, NSOPF:93, and NSOPF:99. repectivif) generated immedianc interest in the poo econdary community becanse they provided nation prefiles of Gaody and instructional saff in postecemotary insirutions in the United Sates, national benchmurks for ficulty produciviry and worlloud. and information oe unstitutional policio and pracic thut affect faculy and instructional staff:
The 2004 National Seuty of Postsecondary Fuculty (NSOPF:04) includes faculy and instructional saff. NSOR. herocional affin cwo imporane was (1) it will Hlow for comparions so be made over in ervended ariad of time, and (2) it vill camien gitial bem concerning fatuly that hae dondoped vice the lo mady.

## alytical Objectives

OPF:04 is dexigned to address a variery of policyvant issues concerning faculty, instructional staff, posteccondry institutions. The study inclodes a fy and an intitution quevionnaire exering gen policies concerning faculty. Information obsained policis conceming faculy, Infommation obeained is about pansecondary ducation, weh as:
Sow many full- and part-time faculty od inerructional saff are chere?
What are their background charstectixica Whar ane their worklosks, and how is their time llocated between chasroom instruction and ofher ctivitios?
What are the current teaching practices and use techisology among posescondary ficulty and natructional staff
Jow sutisfied are they with cuttent working onditions and inatitutional policies?
Sow are faculry and instructional staff compensuto $y$ their institutione? How important arc other purces of income?
What are the carext and recitement plans of fasuly nd insuructional saffe
hir fetirement packagos ate avalille to farulty nd instructional staff
Atwe institutions changed their policia on granting ourc to faculty membera³ Arc dungea anticipated a the future?


## How NSOPF Will Be Conducted

The National Center for Edocation Sutistica (NCES has sontracted with RTI International (RT1) to conduct the NSOPF:.04. RTI, an independent, nomprofit rocerch orgmiastion located in Recearch Triangle Park. NC, hus provided contract supporn to NCES on postcoondary recearch since 1971.
NSOPF 104 consants of a ample of 35,000 ficulty and inseructional suaff sdecced from 1,100 sampled institethens in the 50 states and the District of Catumhis
You can aceess the NSOPF:04 faculty and instruc tional staff quectionnaire on the wobb site at hereself auruga.aces.digorlengety. All das enrey modules on this site will fequine a unique login for access and will be pasword protected. An individual stady ID and pasword will be provided to stady sample tembere.
Proven machods of protection for online sessions and data security orect the Internes will be used. Secute Sockets Lyyer (SSL) technology will be used to encrypt ower the Intemet.

## Data Dissemination

Dasa collected from NSOPF are made avialible to the public in vafous ways Prowstations on study findings ase made at conferences. Docriptive reports are published by NCES on secteced topios. NSOP: publications and dats can be accessed electronically through dic NCES web site af hurpel/ncsich gay sarkyonsope

Findings From Prior Data Collection The following are examples of key resules from NSOPF:99:

- Thene werv about 1.1 millson faculty and instructiomal safff in 2- and 4-year posescoundary institutiom in the fill of 1998 Appoximucly 57 Nreen were employed full time and 43 pereent were employed part time by their ponsecoodary isatitutions.
- Across all postsecondary institutions, Whites accounted for 84 percent of full- time taculy and instructional staff. Avians comprised about 6 percent, African-Americans abowt 5 pecient. Hispanicol Luinas shoet 3 percest, and American Indiand/Alaka Natives abost 1 percest in the fall of 1998.
- Men made up 64 poreent of full-ime ficulty and enstructional staff and 52 pectent of part-time freuly and inatroctional saff in the fall of 1998.
- Full-time instructional faculy and utaff spent an averace of 11 hous a week in the clayfoom is the fall of 1998. The number of hoan spent taching clased ranged from 7 bous at private roench institutions to 17 hours at pullic 2 -yart institutions.
- The average bace salary for foll-time instructional Gaculty and staff duting the 1998 calender yar was $\$ 86,900$. The average tocal income-base salary. ofhar instistional income, consulting, and etber equtside income-was $\$ 68,700$. For part-time instructional faculy and slaff, the averrge these salury was $\$ 11,600$, and the average toeal income was $\$ 46,100$, induding income from other (pethaps full-time) smployment.
Recarch reports and artides using dana from previous NSOPF sudies can be asceaed through the NCES



## Thuin sutur of full ame portscondery

inutructional faculy and staff. Fall 199





## Faculty and Instructional Staf

Participation
59 find out more about $\mathrm{NSOPF}: 04$ of to comples the quationnaire, visit the study wobl site at hries surgeniccasdigwlnopet.

Faculty and instructional staff selected for NSOPF: will be ahle to complete the ioterview on the web leginning in Jamuary 2004. If preferted, the quest site may be completed by telephone with a profo sonalty trained intervicwet from RTI. If assistanc nocded with accesuing the quationnaire on the wil sitc, or if faculyy and instructional staff winh to co Wete a tdephone intervicw, they may call the NSO Help Detk at 1-866.NSOPF04 (1-866-676-7306)


## Why is the study being conducted?

The Nutional Pesteweondary Seudent Alid Study (NPSAS) is a large national survey of undergraduate and graduate students, with a spocial fosus on how they finanee their education ar differcnt typos of institutions. Information is collected from institutions and students to got a national picture of the background of studens, their educational cosso, amount of family support, types of financial aid, student loan debt, and carnings from pobs. The NPSAS survey resules ane widdy uned by researchers to stedy whether the current financial aid programs are adequate to meet student needs. These roults may alwo be uoed by Congress to make changes to the federal student loun and grant programs. Students who are beginning their postsecondary educa. tion-attending a postsecondary school for the first timewill be part of a special follow-up stady in subsequent year This will help us to learn mose ahout the students who complete their ponteccondary education and the faxtors that influmee thair succes.


Where carr I get
more information about NPSASa4
If you hare questien ahout yol6 jigights as a undy purticipant, ploase call RTIs lustivaconal Review Board at 1 - $866-214-2043$ fa moll-frow number) or send an email mauge wo urnatrioge

If you have Gffestionts or cotecms about die study. conract the fullowing

> John Riccobono
> RTI NPSAS Projica Director
> 1.866 .677 .2704
> upanfuiveg
> James Griffith
> NCES Project Officar
> 1.202:502.7387
> Jamer.Girfithendem

You may complete your interview or simply learn more about NPSAS 04 by wiving our whd wite at hripalhumpuncadisiongud.
For more informurion abour NPSAS pullications and ethar
edocational rocardh, viit the NCES wob sik ati bugu/incesed con/gutacurht.


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2004
National Postsecondary Student Aid Study
U.S. Department of Education Inithto pl Education Sciences


## Whow-ment

The 2004 National Ponseccondary Scudens Aid Scudy (NPSAS.09) is sponsored by the U.S. Department of Educa tion's National Center for Education Sratisics (NCES) in the Institute of Education Sciences. The study is conducted under contrace by RTI International (RTI), a nonprofit research organization located in North Carolina

## Who is included in the study?

NPSAS:0f consists of a sample of 120,000 stadents random ly selected from enrollment lists at about 1,600 instinutions in the 50 states, the District of Columbia, and Puerto Rico.

## 

Institutions were initially contacted beginning in spring 2003 to take part in NPSAS:04. Beginning in spring 2004. ampled students will be contacted to complete the webbased interview. Sudents may access the interview on the web at betps://sunvers.ncesed.pov/apsas/ or by calling the NPSAS Help Desk at 1-866-NPSAS04 (1-866-677-2709).

## Why should I participate?

Participation in this study is voluntary. Your participation. however, is essential to making this stady a success. By participating, you have the oppormanity to belp policymakers, researchers, counselos, and others better undersand and meet the financial needs of postsecondary students in the United Scates and Puerso Rico.
How can Participate?
You may complete the study in one of two ways

1. Log in to the web site at hupe//survegh.nces.edsoov/apstel, Once at the site, from the Home/Login page, enter your study ID and password, which are printed at the bottom of your NPSAS cover letter. If you need assistance with NPSAS Help Deck at 1-866-NPSAS04 (1-866-677-270 or contact us via c-mail at pesserriorg.
2. Complete the interview over the phone.

We encourage web completion but, if you prefer, you may complete the questionnaire by telephone with a professionally trained interviewer from RTI. You may choose to complete the interview when our staff call or set an appointment for a later date. We will attempt to
dentify a convenient time to call. Sudents may ermail questions to RTI staff at pposfartiorg or call the NPSAS Help Desk at 1-866-NPSAS04 (1-866-677-2704) with best times to do the interview.

## How Long will this ake

On average, you should complete ceither the self-administered web-based questionnaire or the interviewer-administered elephene interview in about 25 minutes. Web inter. view time may vary depending on your Internet connection sped. If you do not have access to a computer with to complete the interview by telephone.

## Will my answers be kept Confidential?

Your answers may be used only for statistical purposes and may not be disclosed, or used, in identifuble form for any other purpose except as required by law. The answers that ou provide ze compled with the responses from othe rudents and reported to the gencral public in statistical form. The graphs in this brochure are good examples of how data are reported.
The following procedures have been implemented to ensure the confidentiality of your responses:

- Your answers are secured behind firewalls and are encrypted during Intemet transmission using Secure Sockess Layer (SSL.) protocol. All data entry modules are password protected and require the user to log in before accessing confidential dara
Project staff may be severely fined or imprisoned for disdosare of individual responses.
- Confidentiality procedures are reviewed and approved by RT1; Institational Review Board (Committec for Protection of Human Sabjects).


## How can I get a copy of the Results?

Publications from previous studics are currently available from the NCES wob site at hupi//ncesed gov/sureys/opsad.
Reports can be downloaded or ondered at no charge.
Current tites of interest include the following:
Srudew Finaning of Undergraduase Edwarrion 1999-2000 (NCES 2002-167)
Scudew Financing of Grudurte and Fins-Profensional Education 1999-2000 (NCES 2002-160)

## Wh hat have we learned from prior NPSAS studics?

The following are estimates based on information from 30,000 undergraduates, 11,000 graduates, and 1,000 first professional srudents enrolled at approximately 1,000 portscoondary institutions during the 1999-2000 academic yea:

- Fiffy-five percent of undergraduates (about 9.2 million received some type of financial aid, averaging $\$ 6,265$.
- About two out of five undergraduates ( 39 percent) received some type of federal aid, averaging $\$ 5,230$.

Average amounts of selected typer of aid for undergraduates: 1999-2000


Averige amounss of selected types of aid for gradure and fint-professional students 1999-2000


SOUBCE: U.S. Deparment of Edacaion Nabimal Center for
 Aill Srody Soudrer Fiveawial Aid Siriesero for 1999.2000 (NCES 2001-209). Wuhingron, DCt 2001 ,

# LEAD LETTER TO FACULTY 

NSOPF:04
Endorsed by
American Association for Higher Education
American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges
American Association of State Colleges and Universities

American Association of University Professors
American Council on Education

American Federation of Teachers

Association for Institutional Research
Association of American Colleges and Universities

Association of Catholic Colleges and Universities

Career College Association
The Carnegie Foundation for
the Advancement of Teaching

College and University Professional Association for Human Resources

The College Board
The College Fund/UNCF
Council of Graduate Schools
The Council of Independent Colleges

Hispanic Association of Colleges and Universities

National Association of College and University Business Officers

National Association for Equal Opportunity in Higher Education
National Association of Independent Colleges and Universities

National Association of State
Universities and
Land-Grant Colleges
National Association of Student Financial Aid Administrators

National Education Association
$<$ FACULTY NAME $>$
<ADDR 1>
<ADDR 2>
<CITY STATE ZIP>
Dear Colleague,
I am writing to ask you to participate in an important study about postsecondary faculty and instructional staff in the United States. Specifically, I would like you to complete a questionnaire over the Internet about your background and work experiences at $<$ INSTITUTION NAME $>$. You were selected as part of a nationally representative sample of faculty and instructional staff to take part in the fourth cycle of the National Study of Postsecondary Faculty (NSOPF). RTI International (RTI) of North Carolina is conducting this cycle of the study for the U.S. Department of Education. Your participation, while voluntary, is critical to the study's success. On average, the questionnaire takes about 30 minutes to complete.

Your responses will be secured behind firewalls and will be encrypted during Internet transmission. All identifying information is maintained in a separate file for follow-up purposes only. Your responses may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose, except as required by law. We have enclosed a pamphlet that answers common questions about the study, and contains additional information on laws protecting your confidentiality.

To respond to the questionnaire over the Internet:

- Go to: https://surveys.nces.ed.gov/nsopf/
- Type the study ID and password (see below) on the Home/Login page, and
- Press "Enter" or click "Login" to begin the questionnaire.

To respond to the questionnaire by telephone with one of our trained interviewers, or ask questions about the study:

- Call 1-866-NSOPF04 (1-866-676-7304).

If you complete the questionnaire by <DATE>, you may choose to receive either a $\$ 30$ check or gift certificate from Amazon.com as a token of our appreciation.

If you have questions or comments regarding the study, you may contact the RTI Project Director, Dr. Maggie Cahalan, at 1-866-676-7304 (e-mail address: nsopf@rti.org) or the NCES Project Officer, Linda Zimbler, at 1-202-502-7481 (e-mail address: Linda.Zimbler@ed.gov).

Sincerely,

C. Dennis Carroll, Ph.D.

Associate Commissioner Postsecondary Studies Division

Enclosures

Go to: https://surveys.nces.ed.gov/nsopf/
Your study ID:
Your password:

## How to Complete the <br> NSOPF:04 QUESTIONNAIRE


#### Abstract

As a thank you from the U.S. Department of Education, if you complete the National Study of Postsecondary Faculty 2004 (NSOPF:04) questionnaire by $\leq D A T E>$, you will receive either a $\$ 30$ check or gift certificate from Amazon.com (your choice). Your participation is very important to the success of NSOPF:04.


## To complete the self-directed web questionnaire:

1. Go to: https://surveys.nces.ed.gov/nsopf/
2. At the login and password prompts, enter the study ID and password printed in the lower right of the attached letter.
3. Press "Enter" or click "Login" to begin the questionnaire.

You will need to use Internet Explorer or Netscape as your browser to complete the self-directed web version. If you need assistance in completing the web questionnaire or would like to complete the questionnaire over the phone, please call our Help Desk at 1-866-NSOPF04 (1-866-676-7304) for assistance.
While you may complete the NSOPF web questionnaire throughout the data collection period, we will begin calling sample members to complete the interview over the phone starting $<$ DATE $>$.

## For more information about this study visit the web site at:

## https://surveys.nces.ed.gov/nsopf/

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is $1850-0608$. The time required to complete this information collection is estimated to average 30 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate or suggestions for improving this form, please write to: U.S. Department of Education, Washington, DC 20202-4651. If you have comments or concerns regarding the status of your individual submission of this form, write directly to: Linda Zimbler, National Center for Education Statistics, U.S. Department of Education, 1990 K Street, NW, Room 8123, Washington, DC 20006-5652.

## INITIAL E-MAIL

E-mail Subject line: U.S. Department of Education Study
Attention: <NAME>
Dear Colleague,
You have been randomly selected to participate in the fourth cycle of the National Study of Postsecondary Faculty (NSOPF:04) that is being conducted on behalf of the United States Department of Education. We are requesting that you complete a questionnaire over the Internet using the secure study ID and password listed below. Participation in the study is voluntary; however, to ensure that the study represents the range of postsecondary faculty and instructional staff in the United States, the participation of each person selected in the sample is critical to the study's success.

To find out more about the study, click the link below. To respond to the questionnaire over the Internet, log in using your study ID and password:
https://surveys.nces.ed.gov/nsopf/
Study ID:
Password:
You will need to use Internet Explorer or Netscape as your browser to complete the web version.
The U.S. Department of Education has contracted with RTI International, an independent non-profit research organization, to conduct the study. To respond to the questionnaire by telephone or ask questions about the study, please call the RTI help desk at:

1-866-NSOPF04 (1-866-676-7304)
As a small token of our appreciation, if you complete the questionnaire by $<$ DATE $\rangle$, you may choose to receive either a $\$ 30$ check or a $\$ 30$ gift certificate from Amazon.com.

Your responses may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose, except as required by law. Your responses will be secured behind firewalls and will be encrypted during Internet transmission. On average, the questionnaire takes about 30 minutes to complete. To learn more about the study and the laws protecting your confidentiality, please click on the link above.

Thank you in advance for your participation in this important study.
Sincerely,
Linda Zimbler
NSOPF Project Officer
U. S. Department of Education

Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

Note: To ensure that as many sample members as possible receive this message, we also have sent printed materials to you via U.S. mail. All the information in the printed materials also is available through the web site listed above.

# EARLY RESPONSE DEADLINE REMINDER LETTER 

<DATE $>$

## NSOPF:04

Endorsed by
American Association for Higher Education

American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges

American Association of State Colleges and Universities

American Association of University Professors

American Council on Education

American Federation of Teachers
Association for Institutional Research

Association of American Colleges and Universities

Association of Catholic Colleges and Universities
Career College Association
The Carnegie Foundation for the Advancement of Teaching

College and University Professional Association for Human Resources
The College Board
The College Fund/UNCF
Council of Graduate Schools
The Council of Independent Colleges

Hispanic Association of Colleges and Universities
National Association of
College and University Business Officers

National Association for Equal Opportunity in Higher Education

National Association of Independent Colleges and Universities

National Association of State Universities and Land-Grant Colleges

National Association of Student Financial Aid Administrators

National Education
Association
<FACULTY NAME>
<ADDR 1>
<ADDR 2>
<CITY STATE ZIP>
Dear Colleague:

We are writing to urge your completion of the questionnaire for the National Study of Postsecondary Faculty (NSOPF), sponsored by the U. S. Department of Education. As indicated previously, you were randomly selected for participation in this nationally representative sample of faculty and instructional staff.

At a time of rapid change in postsecondary education, NSOPF will provide critical updated information on the characteristics, workload and career paths of faculty and instructional staff in the United States. To adequately represent the full range of faculty and instructional staff throughout the nation, all persons having any full- or part-time instructional duties, or having faculty status in the fall of 2003, are eligible for inclusion. The participation of each individual selected is critical to the study's success.

To access the questionnaire on the web or to obtain more information about the study, go to https://surveys.nces.ed.gov/nsopf and log in using your

Study ID:
Password:
You will need to use Internet Explorer or Netscape as your browser to complete the web version. If you need help accessing the web or if you prefer to complete the questionnaire by telephone, please call the RTI Help Desk at 1-866-NSOPF04 (1-866-676-7304). If you do not wish to receive an additional reminder e-mail message regarding this early-response incentive, you may call the number listed above and request to be removed from the mailing list. The U.S. Department of Education has contracted with RTI International, an independent non-profit research organization, to conduct the study. Whether by web or telephone, we urge you to complete the questionnaire promptly. If you complete the questionnaire by $<\mathrm{DATE}\rangle$, you may choose to receive either a $\$ 30$ check or a $\$ 30$ gift certificate from Amazon.com.

On average, the questionnaire takes about 30 minutes to complete. Your responses may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose, except as required by law. Your responses will be secured behind firewalls and will be encrypted during Internet transmission. To learn more about the study and the laws protecting your confidentiality, please go to the web address listed above.

On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you in advance for your participation in this very important study.
Sincerely,


NSOPF Project Officer
U.S. Department of Education

Marie Cahalar
Margaret Cahalan, Ph.D. NSOPF Project Director RTI International

## FIRST FOLLOW-UP E-MAIL

E-mail Subject line: U.S. Department of Education Study Reminder
Attention: <NAME>
Dear Colleague,
We are writing to urge your timely completion of the questionnaire for the National Study of Postsecondary Faculty (NSOPF). As indicated in our previous correspondence, you were selected as part of a nationally representative sample for this major U.S. Department of Education study.

We are keenly aware of how busy faculty and instructional staff are, which is why we developed a web version of the questionnaire as a convenient way to participate in this important study. If you complete the questionnaire by $<$ DATE $>$, you may elect to receive either a $\$ 30$ check or a gift certificate from Amazon.com as a token of our appreciation.

To find out more about the study, click the link below. To respond to the questionnaire over the Internet, log in using your study ID and password:
https://surveys.nces.ed.gov/nsopf/
Study ID:
Password:

You will need to use Internet Explorer or Netscape as your browser to complete the web version.
The Department of Education has contracted with an independent non-profit research organization, RTI, International, to conduct the study. If you need help completing the survey on the web or you prefer to complete the survey by telephone, please call the RTI Help Desk at 1-866-NSOPF04 (1-866-676-7304). Thank you again for your participation in this important study.

Sincerely,
Linda Zimbler
NSOPF Project Officer
U. S. Department of Education

Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

## SECOND REMINDER E-MAIL

## Subject: U.S. Department of Education Study Follow-up Reminder

Attention: <NAME>
Dear Colleague:
We are writing to urge your completion of the questionnaire for the National Study of Postsecondary Faculty (NSOPF), sponsored by the U.S. Department of Education. As indicated previously, you were randomly selected for participation in this nationally representative sample of faculty and instructional staff.

At a time of rapid change in postsecondary education, NSOPF will provide critical updated information on the characteristics, workload and career paths of faculty and instructional staff in the United States. To adequately represent the full range of faculty and instructional staff throughout the nation, all persons having any full- or parttime instructional duties, or having faculty status in the fall of 2003, are eligible for inclusion. The participation of each individual selected is critical to the study's success.

To access the questionnaire on the web or to obtain more information about the study, go to https://surveys.nces.ed.gov/nsopf and log in using your

Study ID:
Password:

You will need to use Internet Explorer or Netscape as your browser to complete the web version. If you need help accessing the web or if you prefer to complete the questionnaire by telephone, please call the RTI Help Desk at 1-866-NSOPF04 (1-866-676-7304). If you do not wish to receive an additional reminder e-mail message regarding this early-response incentive, you may call the number listed above and request to be removed from the mailing list. The U.S. Department of Education has contracted with RTI International, an independent non-profit research organization, to conduct the study.

Whether by web or telephone, we urge you to complete the questionnaire promptly. If you complete the questionnaire by $<$ DATE $>$, you may choose to receive either a $\$ 30$ check or a $\$ 30$ gift certificate from Amazon.com.

On average, the questionnaire takes about 30 minutes to complete. Your responses may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose, except as required by law. Your responses will be secured behind firewalls and will be encrypted during Internet transmission. To learn more about the study and the laws protecting your confidentiality, please go to the web address listed above.

On behalf of the U.S. Department of Education, we would like to thank you in advance for your participation in this very important study.

Sincerely,
Linda Zimbler
NSOPF Project Officer
U.S. Department of Education

Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

Note: To ensure that as many sample members as possible receive this message, we also have sent printed materials to you via U.S. mail.

## THIRD REMINDER E-MAIL

Subject: U.S. Dept. of Ed. Study Early-response Period Ends After < DATE>
Attention: <NAME>

Dear Colleague:
This message is only intended to be a gentle reminder to you that the early-response period for the National Study of Postsecondary Faculty (NSOPF) is drawing near. We are pleased to report that about 50 percent of faculty and instructional staff invited to participate along with you have already completed the questionnaire online. However, to adequately represent the entire range of faculty and instructional staff in the nation, we need at least 80 percent of the sample to complete the survey. We hope you will find the time to participate in the study soon. As a small token of our appreciation, if you complete the questionnaire by $<\mathrm{DATE}>$, you may choose to receive either a $\$ 30$ check or a $\$ 30$ gift certificate from Amazon.com.

To access the questionnaire on the web or to obtain more information about the study, go to
https://surveys.nces.ed.gov/nsopf and log in using your
Study ID:
Password:

You will need to use Internet Explorer or Netscape as your browser to complete the web version. Please be assured that your responses will be secured behind firewalls and will be encrypted during Internet transmission. If you need help accessing the web or if you prefer to complete the questionnaire by telephone, please call our Help Desk at 1-866-NSOPF04 (1-866-676-7304). If you do not wish to receive additional reminder e-mail messages, you may call the number listed above and request to be removed from the mailing list.

Thank you in advance for your participation in this very important study. Your participation is so very critical to its success.

Sincerely, Linda Zimbler
NSOPF Project Officer
U. S. Department of Education

Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

## NONRESPONSE LETTER

NSOPF:04
Endorsed by
American Association for Higher Education
American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges
American Association of State Colleges and Universities

American Association of University Professors
American Council on Education
American Federation of Teachers

Association for Institutional Research

Association of American Colleges and Universities
Association of Catholic Colleges and Universities

Career College Association
The Carnegie Foundation for the Advancement of Teaching
College and University Professional Association for Human Resources

The College Board
The College Fund/UNCF
Council of Graduate Schools
The Council of Independent Colleges

Hispanic Association of Colleges and Universities

National Association of College and University Business Officers
National Association for Equal Opportunity in Higher Education

National Association of Independent Colleges and Universities

National Association of State Universities and Land-Grant Colleges
National Association of Student Financial Aid Administrators

National Education
Association
<FACULTY NAME>
<ADDR 1>
<ADDR 2>
<CITY STATE ZIP>
$<$ DATE $>$

Dear Colleague,
The National Study of Postsecondary Faculty (NSOPF) needs your help in order to portray an accurate picture of the nation's postsecondary educators. We hope that with the end of the school year, your schedule will allow time for you to complete the NSOPF questionnaire. As someone who plays a crucial role in education, we are sure you can appreciate the importance of having an adequate representation of the diversity of the nation's faculty and instructional staff. This U.S. Department of Education sponsored study will provide critical information on the background characteristics, workloads, and career paths of faculty and instructors in postsecondary institutions. Your experiences and opinions are very important to the success of this study.

As a token of our appreciation for completing the questionnaire, we would like to send you either a $\$ 30$ check or gift certificate from Amazon.com.

Because we are keenly aware of how busy you are, we have developed a web version of the questionnaire as a convenient way for you to participate. You will need to use Internet Explorer or Netscape as your browser to complete the web version. To access the questionnaire on the web or to obtain more information about the study, go to https://surveys.nces.ed.gov/nsopf and log in using your

Study ID:
Password:

All of your answers will be completely confidential and will not be released in any form that could lead to your identification. Your answers will be secured behind firewalls and will be encrypted during Internet transmission. All identifying information is maintained in a separate file, and will never be linked to answers you provide.

If you need help completing the questionnaire on the web or if you prefer to participate by telephone, we have a staff of professional interviewers available to assist you at 1-866-NSOPF04 (1-866-676-7304). Your name was randomly selected from a list that <INSTITUTION NAME> provided us of its fall 2003 faculty and instructional staff. If you were not employed at this institution in the fall, we would greatly appreciate it if you would contact us at the above number and let us know this information.

On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you in advance for your participation in this very important study.

Sincerely,


NSOPF Project Officer
U.S. Department of Education

Baggie Cahala
Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

## NONRESPONSE E-MAIL

E-mail Subject line: U.S. Department of Education Study - need your response
Attention: <NAME>
Dear Colleague,
The National Study of Postsecondary Faculty (NSOPF) needs your help in order to portray an accurate picture of the nation's postsecondary educators. We hope that with the end of the school year, your schedule will allow time for you to complete the NSOPF questionnaire. As someone who plays a crucial role in education, we are sure you can appreciate the importance of having an adequate representation of the diversity of the nation's faculty and instructional staff. This U.S. Department of Education sponsored study will provide critical information on the background characteristics, workloads, and career paths of faculty and instructors in postsecondary institutions. Your experiences and opinions are very important to the success of this study.

As a token of our appreciation for completing the questionnaire, we would like to send you either a $\$ 30$ check or gift certificate from Amazon.com.

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On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you in advance for your participation in this very important study.

Sincerely,
Linda Zimbler
NSOPF Project Officer
U.S. Department of Education

Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

Note: To ensure that as many sample members as possible receive this message, we also have sent this to you via U.S. mail.

# SECOND NONRESPONSE LETTER 

NSOPF:04
Endorsed by
American Association for Higher Education
American Association of Collegiate Registrars and Admissions Officers
American Association of Community Colleges

American Association of State Colleges and Universities

American Association of University Professors
American Council on Education

American Federation of Teachers

Association for Institutional Research
Association of American Colleges and Universities

## Association of Catholic

 Colleges and UniversitiesCareer College
Association
The Carnegie Foundation for the Advancement of Teaching
College and University Professional Association for Human Resources

The College Board
The College Fund/UNCF
Council of Graduate Schools
The Council of Independent Colleges

Hispanic Association of Colleges and Universities

National Association of
College and University Business Officers

National Association for Equal Opportunity in Higher Education
National Association of Independent Colleges and Universities

National Association of State Universities and Land-Grant Colleges

National Association of Student Financial Aid Administrators

National Education Association

$<$ DATE $>$

<FACULTY NAME>
<ADDR 1>
<ADDR 2>
$<$ CITY STATE ZIP>
Dear Colleague,
We are writing again to request your participation in the National Study of Postsecondary Faculty (NSOPF:04). We hope that with the end of the school year, your schedule will now allow time for you to participate in the study. The U.S. Department of Education needs your help in order to portray an accurate picture of the nation's postsecondary educators.

Your experiences and opinions are very important to the success of this study, and will provide critical information on the background characteristics, workloads, and career paths of faculty and instructors in postsecondary institutions. Your name was randomly selected from a list of fall 2003 faculty and instructional staff at $<$ INSTITUTION NAME $>$. If you were not employed in this capacity at this institution in the fall of 2003, we would greatly appreciate it if you would contact us at the number below so that we may correct our database.

As a token of our appreciation for completing the questionnaire, we would like to send you either a $\$ 30$ check or gift certificate from Amazon.com. The web version of the questionnaire has been designed as a convenient way for you to participate in the study as your schedule allows. You will need to use Internet Explorer or Netscape as your browser to complete the web version. If you need help completing the questionnaire on the web or if you prefer to participate by telephone, we have a staff of professional interviewers available to assist you at 1-866-NSOPF04 (1-866-676-7304).

To access the questionnaire on the web or to obtain more information about the study, go to https://surveys.nces.ed.gov/nsopf and log in using your

Study ID:
Password:
All of your answers will be completely confidential and will not be released in any form that could lead to your identification. Your answers will be secured behind firewalls and will be encrypted during Internet transmission. All identifying information is maintained in a separate file and will never be linked to answers you provide.

On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you in advance for your participation in this very important study.

Sincerely,


## SECOND NONRESPONSE E-MAIL

E-mail Subject line: U.S. Department of Education Study - picture of postsecondary educators
Attention: <NAME>

Dear Colleague,
We are writing again to request your participation in the National Study of Postsecondary Faculty (NSOPF:04). We hope that with the end of the school year, your schedule will now allow time for you to participate in the study. The U.S. Department of Education needs your help in order to portray an accurate picture of the nation's postsecondary educators.

Your experiences and opinions are very important to the success of this study, and will provide critical information on the background characteristics, workloads, and career paths of faculty and instructors in postsecondary institutions. Your name was randomly selected from a list of fall 2003 faculty and instructional staff at $<$ INSTITUTION NAME $>$. If you were not employed in this capacity at this institution in the fall of 2003, we would greatly appreciate it if you would contact us at the number below so that we may correct our database.

As a token of our appreciation for completing the questionnaire, we would like to send you either a $\$ 30$ check or gift certificate from Amazon.com. The web version of the questionnaire has been designed as a convenient way for you to participate in the study as your schedule allows. You will need to use Internet Explorer or Netscape as your browser to complete the web version. If you need help completing the questionnaire on the web or if you prefer to participate by telephone, we have a staff of professional interviewers available to assist you at 1-866-NSOPF04 (1-866-676-7304).

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On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you in advance for your participation in this very important study.

Sincerely,
Linda Zimbler
NSOPF Project Officer
U.S. Department of Education

Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

Note: To ensure that as many sample members as possible receive this message, we also have sent this to you via U.S. mail.

NSOPF:04
Endorsed by
American Association
for Higher Education
American Association of Collegiate Registrars and Admissions
Officers
American Association of Community Colleges

American Association of State Colleges and Universities

American Association of University Professors

American Council on Education
American Federation of Teachers

Association for Institutional Research

Association of
American Colleges and Universities

Association of Catholic
Colleges and
Universities
Career College Association

The Carnegie Foundation for the Advancement of Teaching

College and University Professional
Association for Human Resources

The College Board
The College
Fund/UNCF
Council of Graduate
Schools
The Council of Independent Colleges
Hispanic Association of
Colleges and
Universities
National Association of College and University Business Officers

National Association for Equal Opportunity in Higher Education
National Association of Independent Colleges and Universities

National Association of State Universities and Land-Grant Colleges

National Association of Student Financial Aid Administrators
National Education Association <br> \title{

## REFUSAL NONRESPONSE LETTER

} <br> \title{

## REFUSAL NONRESPONSE LETTER

}

$<$ DATE $>$<br><FACULTY NAME><br><ADDR 1><br><ADDR 2><br>$<$ CITY STATE ZIP>

## Dear Colleague,

We are writing to request your participation in the 2004 National Study of Postsecondary Faculty (NSOPF). We understand you may have some reluctance to participate given the many demands that are placed on your time. However we would like to share some key information about the study in order to ensure that you are aware of the importance of this research effort for the U.S. Department of Education and the impact of your participation on the success of the study.

NSOPF:04 is the third in a series of studies designed to capture the experiences of a wide variety of postsecondary faculty and instructional staff by providing critical information on their background characteristics, workloads, and career paths. Because you have been scientifically selected to represent thousands of other postsecondary staff, your experiences and opinions are key to the success of this study. Your answers will help researchers and policy makers respond to issues that directly affect the quality of education in postsecondary institutions.

As a token of our appreciation for completing the questionnaire, we would like to send you either a $\$ 30$ check or gift certificate from Amazon.com. The web version of the questionnaire has been designed as a convenient way for you to participate in the study as your schedule allows. You will need to use Internet Explorer or Netscape as your browser to complete the web version. If you need help completing the questionnaire on the web or if you prefer to participate by telephone, we have a staff of professional interviewers available to assist you at 1-866-NSOPF04 (1-866-676-7304).

To access the questionnaire on the web or to obtain more information about the study, go to https://surveys.nces.ed.gov/nsopf and log in using your

Study ID:
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Thank you for considering this very important study. Your participation is critical to its ultimate success.

Sincerely,


NSOPF Project Officer U.S. Department of Education

Basie Cahalar
Margaret Cahalan, Ph.D. NSOPF Project Director RTI International

## REFUSAL NONRESPONSE E-MAIL

E-mail Subject line: U.S. Department of Education Study - requests your response

## Attention: <NAME>

Dear Colleague,
We are writing to request your participation in the 2004 National Study of Postsecondary Faculty (NSOPF). We understand you may have some reluctance to participate given the many demands that are placed on your time. However we would like to share some key information about the study in order to ensure that you are aware of the importance of this research effort for the U.S. Department of Education and the impact of your participation on the success of the study.

NSOPF:04 is the third in a series of studies designed to capture the experiences of a wide variety of postsecondary faculty and instructional staff by providing critical information on their background characteristics, workloads, and career paths. Because you have been scientifically selected to represent thousands of other postsecondary staff, your experiences and opinions are key to the success of this study. Your answers will help researchers and policy makers respond to issues that directly affect the quality of education in postsecondary institutions.

As a token of our appreciation for completing the questionnaire, we would like to send you either a $\$ 30$ check or gift certificate from Amazon.com. The web version of the questionnaire has been designed as a convenient way for you to participate in the study as your schedule allows. You will need to use Internet Explorer or Netscape as your browser to complete the web version. If you need help completing the questionnaire on the web or if you prefer to participate by telephone, we have a staff of professional interviewers available to assist you at 1-866-NSOPF04 (1-866-676-7304).

To access the questionnaire on the web or to obtain more information about the study, go to
https://surveys.nces.ed.gov/nsopf// and log in using your
Study ID:
Password:
All of your answers will be completely confidential and will not be released in any form that could lead to your identification. Your answers will be secured behind firewalls and will be encrypted during Internet transmission. All identifying information is maintained in a separate file and will never be linked to answers you provide.

Your name was randomly selected from a list of fall 2003 faculty and instructional staff at <INSTITUTION NAME $>$. If you were not employed in this capacity at this institution in the fall, we would greatly appreciate it if you would contact us at the number above and let us know so that we may correct our database.

Thank you in advance for your participation in this very important study. Your participation is critical to its ultimate success.

Sincerely,
Linda Zimbler
NSOPF Project Officer
U.S. Department of Education

Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

Note: To ensure that as many sample members as possible receive this message, we also have sent this to you via U.S. mail.

## EARLY SEPTEMBER NONRESPONDENTS LETTER

## NSOPF:04

Endorsed by
American Association for Higher Education
American Association of Collegiate Registrars and Admissions Officers
American Association of Community Colleges

American Association of State Colleges and Universities
American Association of University Professors
American Council on Education

American Federation of Teachers
Association for Institutional Research

Association of American Colleges and Universities

## Association of Catholic

 Colleges and UniversitiesCareer College Association
The Carnegie Foundation for the Advancement of Teaching

College and University Professional Association for Human Resources
The College Board
The College Fund/UNCF
Council of Graduate Schools
The Council of Independent Colleges

Hispanic Association of Colleges and Universities
National Association of College and University Business Officers

National Association for Equal Opportunity in Higher Education
National Association of Independent Colleges and Universities
National Association of State
Universities and Land-Grant Colleges

National Association of Student Financial Aid Administrators
National Education Association

$<$ FACULTY NAME><br><ADDR 1><br><ADDR 2><br><CITY STATE ZIP>

## Dear Colleague,

As we approach the end of data collection for the 2004 National Study of Postsecondary Faculty (NSOPF), the U.S. Department of Education wants to ensure that all faculty and instructional staff employed in the 2003 Fall Term are well represented in the study. It is important that you are counted so that we have an accurate representation of the diversity and experience of our nation's postsecondary educators.

In fact, your participation is so critical to the success of the study that we have created an abbreviated version of the questionnaire. The current questionnaire takes about 10 minutes to complete. We hope that this reduced time requirement will allow those of you with more demanding schedules to participate in this important study and represent others with similar time constraints.

We still offer two convenient ways to participate. You can visit our web site to answer these questions online in the privacy of your home or office. If you prefer to respond by phone, you can call 1-866-NSOPF04, a toll-free number. To participate or to learn more about the study, $\log$ in with the ID and password provided below.

## https://surveys.nces.ed.gov/nsopf <br> Study ID: <br> Password:

If you complete the questionnaire by September 30, 2004, we will send you either a $\mathbf{\$ 3 0}$ check or $\mathbf{\$ 3 0}$ gift certificate from Amazon.com, as a token of our appreciation. Your responses will be kept confidential, will be encrypted during Internet transmission, and will be secured behind firewalls. All identifying information is maintained in a separate file and will never be linked to answers you provide.

On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you for your consideration of this important study.

Sincerely,


Linda Zimbler
NSOPF Project Officer
U.S. Department of Education


Margaret Cahalan, PhD.
NSOPF Project Director
RTI International

Subject: Abbreviated version of U.S. Department of Education Study
Attention: <NAME>

Dear Colleague,
As we approach the end of data collection for the 2004 National Study of Postsecondary Faculty (NSOPF), the U.S. Department of Education wants to ensure that all faculty and instructional staff employed in the 2003 Fall Term are well represented in the study. It is important that you are counted so that we have an accurate representation of the diversity and experience of our nation's postsecondary educators.

In fact, your participation is so critical to the success of the study that we extended the deadline and have created an abbreviated version of the questionnaire.

The current questionnaire takes about 10 minutes to complete. We hope that this reduced time requirement will allow those of you with more demanding schedules to participate in this important study and represent others with similar time constraints.

We still offer two convenient ways to participate. You can visit our web site to answer these questions online in the privacy of your home or office. If you prefer to respond by phone, you can call 1-866-NSOPF04, a toll-free number. To participate or to learn more about the study, log in with the ID and password provided below.
https://surveys.nces.ed.gov/nsopf
Study ID:
Password:

If you complete the questionnaire by October 5, 2004, we will send you either a $\$ 30$ check or $\$ 30$ gift certificate from Amazon.com, as a token of our appreciation. Your responses will be kept confidential, will be encrypted during Internet transmission, and will be secured behind firewalls. All identifying information is maintained in a separate file and will never be linked to answers you provide.

On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you for your consideration of this important study.

Sincerely,
Linda Zimbler
NSOPF Project Officer
U.S. Department of Education

Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

## FINAL REMINDER E-MAIL

Subject: Final Reminder and Deadline Extension for U.S. Department of Education Study
Attention: <NAME>
Dear Colleague,
This final communication to you is to let you know that we have extended the deadline for the 2004 National Study of Postsecondary Faculty (NSOPF) through Tuesday, October 5, 2004. We are extending data collection to achieve a higher response rate. While 75 percent of all eligible sample members have completed the questionnaire, we want to make sure that we have the most accurate representation of our nation's postsecondary educators. Your participation is critical in helping us achieve this goal. Please take 10 minutes out of your busy schedule to complete the questionnaire.

As a reminder, we still offer two convenient ways to participate. You can visit our website to answer these questions online in the privacy of your home or office. If you prefer to respond by phone, you can call 1-866-NSOPF04, a toll-free number. To participate or to learn more about the study, log in with the Study ID and password provided below.

```
https://surveys.nces.ed.gov/nsopf/
Study ID:
Password:
```

If you complete the 10 minute questionnaire, we will send you either a $\$ 30$ check or $\$ 30$ gift certificate from Amazon.com, as a token of our appreciation. Your responses will be kept confidential, will be encrypted during Internet transmission, and will be secured behind firewalls. All identifying information is maintained in a separate file and will never be linked to answers you provide.

On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you for your consideration of this important study.

Linda Zimbler
NSOPF Project Officer
U.S. Department of Education

Margaret Cahalan, Ph.D.
NSOPF Project Director
RTI International

# REFUSALS MAY NOT BE ELIGIBLE LETTER 

## $<$ DATE $>$

NSOPF:04
Endorsed by
American Association for Higher Education

American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges

American Association of State Colleges and Universities
American Association of University Professors

American Council on Education

American Federation of Teachers
Association for Institutional Research

Association of American Colleges and Universities

Association of Catholic Colleges and Universities
Career College Association
The Carnegie Foundation for the Advancement of Teaching
College and University
Professional Association for Human Resources

The College Board
The College Fund/UNCF
Council of Graduate Schools
The Council of Independent Colleges
Hispanic Association of Colleges and Universities
National Association of College and University Business Officers

National Association for Equal Opportunity in Higher Education

National Association of Independent Colleges and Universities
National Association of State Universities and Land-Grant Colleges

National Association of Student Financial Aid Administrators

National Education Association
$<$ FACULTY NAME $>$
<ADDR 1>
<ADDR 2>
<CITY STATE ZIP>

Dear Colleague,
We recently contacted you about an important study for the U.S. Department of Education called the National Study of Postsecondary Faculty (NSOPF). As the end of the study draws near, we are writing to request that you take a few minutes to help us accurately document the records for $<$ INSTITUTION NAME $>$.

While we respect your decision should you ultimately choose not to participate in this study, we have found that other faculty who initially decline to complete the interview do so because they believe they are not eligible to participate based on the sample design. NSOPF is designed to be a comprehensive source of information, encompassing the experiences of many diverse postsecondary staff, including part-time and full-time faculty and instructional staff, and even adjunct staff who provide instruction to students. In order to ensure that the data for this study are as complete and accurate as possible, we would appreciate it if you could help us determine your eligibility for this study by answering just three short questions.

- Were you employed by <INSTITUTION NAME> during the 2003 Fall Term?
- During the 2003 Fall Term at <INSTITUTION NAME>, did you have faculty status as defined by that institution?
- Did you have any instructional duties at <INSTITUTION NAME> during the 2003 Fall Term (such as teaching students in one or more credit or noncredit courses, advising or supervising students' academic activities)?

We understand that faculty and instructional staff lead very busy lives, so we offer two convenient ways to participate. You can visit our web site to answer these questions online in the privacy of your home or office. If you prefer to respond by phone, you can call 1-866-NSOPF04, a toll-free number. For more information about the study, login with the ID and password provided below.

```
https://surveys.nces.ed.gov/nsopf
Study ID:
Password:
```

If you are eligible for the study and choose to complete the questionnaire, we would like to send you either a $\$ 30$ check or gift certificate from Amazon.com. Your responses are very important to the success of this study and will be kept completely confidential. Your answers will be secured behind firewalls and will be encrypted during Internet transmission. All identifying information is maintained in a separate file and will never be linked to answers you provide.

On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you for your consideration of this important study.

Sincerely,


Linda Zimbler NSOPF Project Officer
U.S. Department of Education

Marie Caholaw
Margaret Cahalan, Ph.D. NSOPF Project Director
RTI International

# PARTIALS MAY NOT BE ELIGIBLE LETTER 

$<$ DATE $>$

NSOPF:04
Endorsed by
American Association for Higher Education
American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges
American Association of State Colleges and Universities

American Association of University Professors
American Council on Education

American Federation of Teachers

Association for Institutional Research

Association of American Colleges and Universities

Association of Catholic Colleges and Universities

Career College Association
The Carnegie Foundation for the Advancement of Teaching

College and University Professional Association for Human Resources

The College Board
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National Association of College and University Business Officers

National Association for Equal Opportunity in Higher Education
National Association of Independent Colleges and Universities

National Association of State
Universities and Land-Grant Colleges

National Association of Student Financial Aid Administrators

National Education Association
$<$ FACULTY NAME $>$
<ADDR 1>
<ADDR 2>
<CITY STATE ZIP>

## Dear Colleague,

In reviewing the data for the National Study of Postsecondary Faculty (NSOPF), we observed that some faculty and instructional staff only answered the first one or two questions. We have also received reports from sample members who could not participate because they had difficulty completing the study on the web or did not complete the study because they believed they were not eligible to participate based on the initial questions.

As the end of the study draws near, we are writing to clarify the eligibility criteria for the study and to request that you help us accurately document the records for <INSTITUTION NAME $>$. To that end, we would appreciate it if you would take a few minutes to answer just three short questions that will help us determine your eligibility for this study.

- Were you employed by <INSTITUTION NAME> during the 2003 Fall Term?
- During the 2003 Fall Term at <INSTITUTION NAME>, did you have faculty status as defined by that institution?
- Did you have any instructional duties at <INSTITUTION NAME $>$ during the 2003 Fall Term (such as teaching students in one or more credit or noncredit courses, advising or supervising students' academic activities)?

We understand that faculty and instructional staff lead very busy lives, so we offer two convenient ways to participate. You can visit our web site to answer these questions online in the privacy of your home or office. If you prefer to respond by phone, you can call 1-866NSOPF04, a toll-free number. For more information about the study, login with the ID and password provided below.

```
https://surveys.nces.ed.gov/nsopf
Study ID:
Password:
```

If you are eligible for the study and choose to complete the questionnaire, we would like to send you either a $\$ 30$ check or gift certificate from Amazon.com, as a token of our appreciation. Your responses are very important to the success of this study and will be kept completely confidential. Your answers will be secured behind firewalls and will be encrypted during Internet transmission. All identifying information is maintained in a separate file and will never be linked to answers you provide.

On behalf of the National Center for Education Statistics, U.S. Department of Education, we would like to thank you for your consideration of this important study.

Sincerely,


Linda Zimbler
NSOPF Project Officer
U.S. Department of Education

Maggie Cahalaw
Margaret Cahalan, Ph.D. NSOPF Project Director
RTI International

## Appendix G <br> Training Materials

# NSOPF:04 Telephone Interviewer Training Agenda Day 1 - Saturday, February 28, 2004 

| $9: 00 \mathrm{a}-9: 30 \mathrm{a}$ | Welcome and Introduction (30 min) |
| :--- | :--- |
| $9: 30 \mathrm{a}-9: 45 \mathrm{a}$ | Confidentiality (15 min) |
| $9: 45 \mathrm{a}-10: 25 \mathrm{a}$ | Demonstration Mock (40 min) |
| $10: 25 \mathrm{a}-10: 40 \mathrm{a}$ | Small group discussion of survey/FAQs (15 min) |
| $10: 40 \mathrm{a}-10: 55 \mathrm{a}$ | Break (15 min) |
| $10: 55 \mathrm{a}-12: 25 \mathrm{p}$ | Q x Q Review (90 min) |
| $12: 25 \mathrm{p}-1: 00 \mathrm{p}$ | Lunch Break (35 min) |
| $1: 00 \mathrm{p}-2: 00 \mathrm{p}$ | Round Robin Mock \#1 (60 min) |
| $2: 00 \mathrm{p}-2: 30 \mathrm{p}$ | Open-Ended Coding Practice (30 min) |
| $2: 30 \mathrm{p}-3: 30 \mathrm{p}$ | Refusal Avoidance/Conversion (60min) |
| $3: 30 \mathrm{p}-3: 45 \mathrm{p}$ | Break (15 min) |
| $3: 45 \mathrm{p}-4: 45 \mathrm{p}$ | Contacting/Locating/Front-End (60 min) |
| $4: 45 \mathrm{p}-5: 45 \mathrm{p}$ | Round Robin Mock \#2 (60 min) |
| $5: 45 \mathrm{p}-6: 00 \mathrm{p}$ | FAQ Review |

Day 2 - Sunday, February 29, 2004
$1: 00 \mathrm{p}-1: 15 \mathrm{p} \quad$ FAQ Review (Oral Quiz) (15 min)
$1: 15 \mathrm{p}-2: 00 \mathrm{p} \quad$ Written Exercises ( 45 min )
$2: 00 \mathrm{p}-2: 20 \mathrm{p} \quad$ Written Open-Ended Coding Exercise (20 min)
2:20p-3:05p Additional Contacting/Locating Practice for new TIs ( 45 min )
3:05p-3:20p Break (15 min)
3:20p-3:50p $\quad$ FAQ Certification (30 min)

3:50p-5:00p Certification Interviews (70 min)

Additional Training (on interviewers' first shift after training):
Finish coding exercise ( 20 min )
Individual Mock Interview ( 30 min )

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## Appendix H Quality of Lists

Tables H-1 through H-3 show the comparisons between institution questionnaire counts and tallied faculty list counts. Among the 900 institutions that provided faculty lists and responded to the questionnaire, 740 ( 83 percent) had list counts that were less than 10 percent discrepant. There were a greater number of discrepancies in part-time faculty counts than fulltime faculty counts. Providing a complete and accurate list of part-time faculty is, for most institutions, the most difficult part of the NSOPF data request.

Table H-1. Relative percentage discrepancy between total faculty counts from the institution questionnaire and faculty list: 2004

|  | Number of <br> institutions | Relative percentage discrepancy |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Institution type | 900 | $<-10$ | -10 to 10 | $>10$ |
| Total |  | 60 | 740 | 100 |
| Public doctor's | 170 |  |  |  |
| Public master's | 100 | 10 | 130 | 20 |
| Public bachelor's | 30 | 10 | 90 | 10 |
| Public associate's | 280 | $\#$ | 20 | 10 |
| Public other | 10 | 20 | 230 | 40 |
| Private not-for-profit doctor's | 90 | $\#$ | 10 | $\#$ |
| Private not-for-profit master's | 70 | $\#$ | 80 | 10 |
| Private not-for-profit bachelor's | 110 | 10 | 50 | 10 |
| Private not-for-profit associate's | 10 | 10 | 100 | 10 |
| Private not-for-profit other | 50 | $\#$ | 10 | $\#$ |

\# Rounds to zero.
NOTE: Numbers are rounded to the nearest 10. Detail may not sum to totals because of rounding. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table H-2. Relative percentage discrepancy between part-time faculty counts from the institution and faculty list: 2004

|  | Number of <br> institutions | Relative percentage discrepancy |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Institution type | 900 | $<-10$ | -10 to 10 | $>10$ |  |
| Total |  | 90 | 680 | 120 |  |
|  | 170 |  |  |  |  |
| Public doctor's | 100 | 20 | 120 | 20 |  |
| Public master's | 30 | 10 | 80 | 10 |  |
| Public bachelor's | 280 | $\#$ | 20 | $\#$ |  |
| Public associate's | 10 | 20 | 220 | 40 |  |
| Public other | 90 | 10 | 70 | $\#$ |  |
| Private not-for-profit doctor's | 70 | 10 | 50 | 10 |  |
| Private not-for-profit master's | 110 | 10 | 90 | 10 |  |
| Private not-for-profit bachelor's | 10 | $\#$ | 10 | 20 |  |
| Private not-for-profit associate's | 50 | 10 | 30 | $\#$ |  |
| Private not-for-profit other |  |  |  |  | 10 |

\# Rounds to zero.
NOTE: Numbers are rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table H-3. Relative percentage discrepancy between full-time faculty counts from the institution questionnaire and faculty list: 2004

|  | Number of <br> institutions | Relative percentage discrepancy |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Institution type | 900 | $<-10$ | -10 to 10 | $>10$ |
| Total |  | 80 | 770 | 60 |
|  | 170 |  |  |  |
| Public doctor's | 100 | 20 | 130 | 20 |
| Public master's | 30 | 10 | 90 | $\#$ |
| Public bachelor's | 280 | $\#$ | 20 | $\#$ |
| Public associate's | 10 | 20 | 240 | 20 |
| Public other | 90 | $\#$ | 10 | $\#$ |
| Private not-for-profit doctor's | 70 | 10 | 80 | $\#$ |
| Private not-for-profit master's | 110 | 10 | 60 | $\#$ |
| Private not-for-profit bachelor's | 10 | 10 | 100 | $\#$ |
| Private not-for-profit associate's | 50 | 10 | 10 | $\#$ |
| Private not-for-profit other |  |  | 30 | $\#$ |

\# Rounds to zero.
NOTE: Numbers are rounded to the nearest 10. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Nonresponse Bias Analysis

## I. 1 Overview

The bias in an estimated mean based on respondents, $\bar{y}_{R}$, is the difference between this estimate and the target parameter, $\mu$, which is the mean that would result if a complete census of the target population was conducted and all units responded. This bias can be expressed as follows:

$$
B\left(\bar{y}_{R}\right)=\bar{y}_{R}-\mu
$$

However, for variables that are available from the frame, $\mu$ can be estimated by $\hat{\mu}$ without sampling error, in which case the bias in $\bar{y}_{R}$ can then be estimated by:

$$
\hat{B}\left(\bar{y}_{R}\right)=\bar{y}_{R}-\hat{\mu}
$$

Moreover, an estimate of the population mean based on respondents and nonrespondents can be obtained by:

$$
\hat{\mu}=(1-\hat{\eta}) \bar{y}_{R}+\hat{\eta} \bar{y}_{N R}
$$

where $\hat{\eta}$ is the weighted unit nonresponse rate, based on weights prior to nonresponse adjustment. Consequently, the bias in $\bar{y}_{R}$ can then be estimated by:

$$
\hat{B}\left(\bar{y}_{R}\right)=\hat{\eta}\left(\bar{y}_{R}-\bar{y}_{N R}\right)
$$

That is, the estimate of the nonresponse bias is the difference between the mean for respondents and nonrespondents multiplied by the weighted nonresponse rate, using the design weights prior to nonresponse adjustment.

## I. 2 Unit-level Nonresponse Bias Analysis

A faculty respondent was defined as any sample member who was determined to be eligible for the study and had valid data for the selected set of key analytical variables. As shown in section 3.2.1 (table 13) of the main body of this report, for the 34,330 eligible sample faculty members the unweighted and weighted response rates were both 76 percent. Since the faculty weighted response rate was below 85 percent for virtually all institution types, a nonresponse bias analysis was conducted for faculty members from all institution types. The nonresponse bias was estimated for the variables known for both respondents and nonrespondents within each institution type.

The steps for nonresponse bias analysis included estimating the nonresponse bias and testing (adjusting for multiple comparisons) to determine if the bias was significant at the 5 percent level. Second, nonresponse adjustment factors were computed, as detailed in section 6.2.3, to significantly reduce or eliminate nonresponse bias for variables included in the corresponding models. Third, after the weights were computed, any remaining bias was estimated and statistical tests were performed to determine their significance.

As shown in table I-1, the faculty weighting adjustments have reduced, and in some cases eliminated, bias for faculty members for all institution types. Significant bias was reduced for the variables known for most respondents and nonrespondents, which are considered key analytical
variables and correlated with many of the other variables where bias is measured as a significant difference from zero using the National Center for Education Statistics (NCES) recommended method detailed in section I.1.

Table I-1. Summary of faculty nonresponse bias analysis, overall and by type of institution: 2004

| Nonresponse bias statistics | Nonresponse rate | Relative bias |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Before weight adjustments |  |  | After weight adjustments |  |  |
|  |  | Mean | Median | Percent significant | Mean | Median | Percent significant |
| All faculty | 24.40 | 0.09 | 0.05 | 26.60 | 0.07 | 0.02 | 8.1 |
| Public doctor's | 21.90 | 0.04 | 0.02 | 73.90 | 0.02 | 0.01 | 30.4 |
| Public master's | 21.50 | 0.06 | 0.06 | 13.00 | 0.02 | 0.01 | \# |
| Public bachelor's | 32.60 | 0.09 | 0.07 | 8.70 | 0.16 | 0.10 | 4.3 |
| Public associate's | 26.30 | 0.06 | 0.05 | 21.70 | 0.04 | 0.01 | 4.3 |
| Public other | 26.70 | 0.12 | 0.04 | 100.00 | 0.06 | 0.02 | \# |
| Private not-for-profit doctor's | 31.80 | 0.06 | 0.05 | 56.50 | 0.03 | 0.03 | 21.7 |
| Private not-for-profit master's | 21.50 | 0.07 | 0.07 | 17.40 | 0.04 | 0.03 | 8.7 |
| Private not-for-profit bachelor's | 21.30 | 0.07 | 0.06 | 18.20 | 0.03 | 0.03 | \# |
| Private not-for-profit associate's | 9.00 | 0.25 | 0.15 | 35.00 | 0.12 | 0.05 | 5.0 |
| Private not-for-profit other | 29.40 | 0.08 | 0.03 | 18.20 | 0.14 | 0.08 | 4.5 |

\# Rounds to zero.
NOTE: The percent significant reflects the ratio of biased estimates to biased and unbiased estimates for the items involved in this analysis.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Analogous analyses were conducted for the institution survey where a responding institution was one that had responded to the institution questionnaire. The corresponding institution level results are summarized in table I-2. Here too, the institution weighting adjustments have reduced percent significant bias overall and for all institution types. Note that such analyses were not carried out when computing the institution component weights for the faculty analysis weights, since the weighted response rate for institutions providing lists of faculty and instructional staff exceeded 85 percent.

Table l-2. Summary of institution nonresponse bias analysis, overall and by type of institution: 2004

| Nonresponse bias statistics | Nonresponse rate | Relative bias |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Before weight adjustments |  |  | After weight adjustments |  |  |
|  |  | Mean | Median | Percent significant | Mean | Median | Percent significant |
| All faculty | 15.80 | 0.06 | 0.04 | 7.69 | 0.20 | 0.12 | 7.69 |
| Public, doctor's | 15.30 | 0.06 | 0.05 | 6.25 | 0.09 | 0.07 | 6.25 |
| Public, master's | 10.40 | 0.09 | 0.05 | 18.75 | 0.17 | 0.12 | \# |
| Public, bachelor's | 0.00 | 0.21 | 0.21 | 100.00 | 0.41 | 0.38 | 6.25 |
| Public, associate's | 16.40 | 0.12 | 0.09 | 18.75 | 0.18 | 0.11 | 12.5 |
| Public, other/unknown | 1.10 | 0.20 | 0.00 | 38.46 | 0.52 | 0.22 | 7.69 |
| Private not-for-profit doctor's | 16.30 | 0.08 | 0.06 | 12.50 | 0.15 | 0.13 | 6.25 |
| Private not-for-profit master's | 20.20 | 0.08 | 0.07 | 6.25 | 0.29 | 0.25 | \# |
| Private not-for-profit bachelor's | 22.30 | 0.11 | 0.13 | 13.33 | 0.23 | 0.18 | 6.67 |
| Private not-for-profit associate's | 14.00 | 0.12 | 0.00 | 6.67 | 0.92 | 0.64 | 13.33 |
| Private not-for-profit other/unknown | 23.80 | 0.12 | 0.09 | 100.00 | 0.53 | 0.42 | 12.5 |

\# Rounds to zero.
NOTE: The percent significant reflects the ratio of biased estimates to biased and unbiased estimates. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

## I. 3 Item-Level Bias Analysis

For items with less than 85 percent weighted response rate, respondents and nonrespondents are compared on the sampling frame and/or questionnaire variables when data on respondents and nonrespondents were available. For this purpose, item response rates (RRI) were calculated as the ratio of the number of respondents for whom an in-scope response was obtained ( $I^{\mathrm{x}}$ for item $x$ ) to the number of unit level respondents $(I)$ minus the number of respondents with a valid skip item for item $x\left(V^{\star}\right)$, or:

$$
R R I^{x}=\frac{I^{x}}{I-V^{x}}
$$

A faculty member was defined to be an item respondent for an analytic variable if the given faculty member had data for that variable, observed or deduced via logical imputation. Table I-3 provides a summary of response rates for variables with a response rate less than 85 percent-overall or within an institution type. A nonresponse bias analysis was conducted for these items, results of which are summarized in table I-4. For these items, the nonresponse bias was estimated for variables known for both respondents and nonrespondents and tested (adjusting for multiple comparisons) to determine if the bias was significant at the 5 percent level.

With the exception of the income items, which were expected to have higher rates of refusal due to their sensitive nature, the primary reason item nonresponse exceeded 15 percent for these items is that each applies to a relatively small subset of respondents (i.e., small denominator) and none of these items were asked on the abbreviated instrument, which was administered to about 1,600 responding faculty members.

The Q37 items were presented as a matrix that asked 6 questions about each of the classes taught by the respondents. The rate of nonresponse increased for each subsequent class described, due primarily to the smaller number of respondents to whom the question applied, relative to the static number of respondents who completed the abbreviated instrument and were not asked this question.

Income paid per course, credit unit, or term (Q68) was missing for 26 percent of respondents to whom this item applied. This item was asked only of those who indicated their salary was not based on a 9- or 10-month, or 11- or 12-month contract. Of those who provided the basis of their pay (course, credit hour, academic term [Q68]), a follow-up question (Q69) asked for the amount of income paid per course, credit unit, or term. This item was missing for 36 percent of respondents to whom this item applied.

Table l-3. Faculty item response rates for items with < 85 percent response rate for any institution type before weight adjustments, overall and by institution type: 2004

| Variable | Overall | Public |  |  |  |  | Private, not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q31A | 88.7 | 90.5 | 90.9 | 81.9 | 88.3 | 89.9 | 87.8 | 87.8 | 86.4 | 98.9 | 80.7 |
| Q31B | 88.7 | 90.5 | 89.9 | 81.3 | 88.2 | 89.9 | 88.1 | 88.3 | 87.0 | 98.0 | 82.1 |
| Q31C | 90.0 | 91.3 | 90.8 | 83.4 | 90.0 | 93.3 | 89.3 | 90.3 | 87.7 | 98.1 | 84.3 |
| Q31D | 90.0 | 91.2 | 90.9 | 81.3 | 89.8 | 92.3 | 89.6 | 90.4 | 87.7 | 97.9 | 84.0 |
| Q32A | 91.2 | 92.4 | 92.2 | 83.5 | 91.1 | 92.5 | 91.0 | 92.1 | 89.0 | 99.2 | 84.3 |
| Q32B | 91.2 | 92.4 | 92.2 | 83.5 | 91.1 | 92.5 | 91.1 | 92.0 | 89.0 | 99.2 | 84.3 |
| Q32C | 91.3 | 92.4 | 92.2 | 83.5 | 91.2 | 92.5 | 91.0 | 92.0 | 89.0 | 99.2 | 84.3 |
| Q32D | 91.2 | 92.4 | 92.2 | 83.5 | 91.1 | 92.5 | 91.0 | 92.1 | 89.0 | 99.2 | 84.3 |
| Q35A1 | 91.6 | 92.6 | 92.5 | 83.6 | 91.6 | 93.5 | 91.4 | 92.5 | 89.4 | 99.2 | 85.4 |
| Q35A2 | 91.6 | 92.5 | 92.5 | 83.5 | 91.6 | 93.5 | 91.4 | 92.5 | 89.3 | 99.2 | 85.4 |
| Q35B | 90.4 | 91.6 | 91.7 | 81.9 | 90.1 | 93.0 | 90.4 | 91.8 | 88.8 | 94.4 | 84.2 |
| Q35C | 90.5 | 91.5 | 91.7 | 82.4 | 90.0 | 93.0 | 90.5 | 91.4 | 88.6 | 97.8 | 84.5 |
| Q36 | 89.9 | 90.2 | 91.7 | 82.4 | 89.9 | 93.2 | 88.3 | 91.6 | 88.3 | 99.2 | 83.6 |
| Q37A1 | 89.0 | 89.1 | 90.9 | 82.4 | 89.0 | 91.6 | 86.7 | 91.4 | 87.9 | 99.1 | 82.9 |
| Q37A2 | 84.5 | 83.5 | 88.6 | 78.7 | 84.6 | 89.1 | 78.4 | 87.6 | 84.4 | 99.0 | 73.7 |
| Q37A3 | 78.0 | 69.9 | 85.6 | 72.1 | 79.5 | 87.3 | 61.5 | 82.6 | 79.4 | 98.8 | 63.7 |
| Q37A4 | 67.7 | 47.6 | 76.3 | 64.7 | 73.5 | 81.6 | 33.9 | 72.2 | 64.8 | 98.8 | 52.7 |
| Q37A5 | 51.4 | 25.5 | 50.9 | 35.2 | 65.0 | 59.7 | 14.3 | 43.8 | 40.4 | 98.1 | 41.3 |
| Q37B1 | 87.2 | 86.2 | 91.1 | 81.9 | 88.3 | 91.6 | 79.8 | 90.3 | 86.7 | 99.1 | 80.4 |
| Q37B2 | 83.4 | 81.2 | 88.9 | 78.0 | 84.2 | 89.1 | 74.2 | 87.2 | 83.2 | 99.0 | 72.9 |
| Q37B3 | 77.0 | 67.3 | 85.9 | 72.1 | 79.1 | 87.3 | 57.5 | 82.0 | 78.3 | 98.8 | 62.1 |
| Q37B4 | 66.9 | 45.1 | 76.6 | 64.6 | 73.0 | 81.6 | 30.6 | 71.9 | 64.3 | 98.8 | 50.8 |
| Q37B5 | 50.7 | 23.9 | 51.3 | 35.5 | 64.4 | 59.7 | 13.0 | 42.3 | 39.2 | 98.1 | 41.0 |
| Q37C1 | 89.1 | 89.1 | 90.9 | 81.6 | 89.2 | 91.6 | 87.0 | 91.3 | 88.0 | 99.1 | 82.2 |
| Q37C2 | 84.3 | 83.3 | 88.8 | 77.9 | 84.5 | 89.1 | 77.9 | 87.6 | 84.2 | 98.7 | 72.8 |
| Q37C3 | 77.7 | 69.5 | 85.3 | 71.2 | 79.4 | 87.3 | 61.6 | 82.5 | 79.4 | 98.3 | 62.8 |
| Q37C4 | 67.5 | 47.2 | 76.5 | 63.9 | 73.3 | 81.6 | 34.1 | 72.4 | 64.8 | 97.9 | 51.3 |
| Q37C5 | 51.1 | 25.3 | 51.2 | 35.0 | 64.3 | 59.7 | 14.7 | 43.0 | 39.9 | 98.1 | 41.3 |
| Q37D1 | 88.7 | 88.6 | 90.9 | 81.8 | 88.9 | 91.6 | 86.0 | 90.9 | 87.8 | 99.1 | 81.9 |
| Q37D2 | 84.3 | 83.2 | 88.6 | 77.9 | 84.3 | 89.1 | 77.9 | 87.2 | 84.4 | 98.9 | 73.2 |
| Q37D3 | 77.7 | 70.0 | 85.4 | 71.0 | 79.4 | 87.3 | 61.0 | 81.9 | 79.5 | 98.8 | 63.0 |
| Q37D4 | 67.5 | 47.4 | 76.5 | 63.4 | 73.3 | 81.6 | 33.7 | 72.3 | 65.1 | 98.8 | 51.1 |
| Q37D5 | 51.2 | 25.3 | 51.2 | 35.7 | 64.4 | 59.7 | 14.5 | 43.6 | 40.4 | 98.1 | 41.1 |

[^45]Table I-3. Faculty item response rates for items with < 85 percent response rate for any institution type before weight adjustments, overall and by institution type-Continued

| Variable | Overall | Public |  |  |  |  | Private, not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q37E1 | 89.5 | 89.5 | 91.6 | 82.4 | 89.9 | 93.2 | 87.2 | 91.6 | 88.1 | 99.2 | 81.8 |
| Q37E2 | 84.3 | 82.4 | 87.8 | 77.0 | 85.8 | 91.1 | 77.0 | 86.8 | 83.9 | 99.0 | 73.1 |
| Q37E3 | 78.3 | 69.7 | 85.3 | 71.0 | 80.8 | 89.7 | 62.4 | 82.3 | 78.9 | 98.9 | 63.1 |
| Q37E4 | 68.1 | 47.6 | 76.7 | 63.4 | 74.5 | 84.9 | 34.2 | 71.9 | 65.1 | 98.8 | 51.4 |
| Q37E5 | 52.0 | 25.4 | 51.0 | 35.1 | 66.3 | 67.1 | 15.2 | 43.4 | 40.3 | 98.1 | 39.9 |
| Q37F1 | 89.7 | 90.0 | 91.6 | 82.0 | 89.8 | 93.2 | 87.9 | 91.5 | 88.0 | 99.2 | 83.3 |
| Q37F2 | 85.2 | 84.2 | 89.2 | 78.8 | 85.7 | 91.1 | 78.8 | 87.6 | 84.6 | 97.9 | 74.7 |
| Q37F3 | 78.7 | 71.5 | 86.0 | 72.5 | 80.3 | 89.7 | 62.6 | 82.2 | 79.3 | 98.9 | 65.1 |
| Q37F4 | 68.6 | 49.7 | 77.0 | 64.8 | 74.0 | 84.9 | 35.6 | 72.7 | 65.3 | 98.8 | 53.9 |
| Q37F5 | 52.6 | 28.4 | 51.1 | 35.9 | 65.6 | 67.1 | 17.4 | 45.0 | 40.4 | 98.1 | 43.3 |
| Q38A | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q38B | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q38C | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q38D | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q38E | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q38F | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q38G | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q38H | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q381 | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q38J | 87.0 | 84.1 | 90.3 | 81.6 | 89.5 | 92.8 | 77.4 | 89.0 | 87.4 | 99.2 | 72.6 |
| Q39 | 92.2 | 93.5 | 92.8 | 84.5 | 92.0 | 94.6 | 92.0 | 92.9 | 89.4 | 99.2 | 86.5 |
| Q41 | 92.0 | 93.2 | 92.5 | 84.7 | 91.9 | 94.6 | 91.9 | 92.7 | 89.3 | 99.2 | 86.1 |
| Q46 | 91.6 | 92.7 | 92.5 | 83.9 | 91.7 | 93.5 | 91.5 | 92.5 | 88.9 | 99.2 | 85.3 |
| Q47A1 | 91.5 | 92.6 | 92.4 | 83.7 | 91.6 | 93.5 | 91.2 | 92.5 | 88.9 | 99.2 | 85.3 |
| Q47A2 | 91.6 | 92.6 | 92.4 | 83.5 | 91.7 | 93.5 | 91.1 | 92.6 | 89.3 | 99.2 | 85.2 |
| Q47A3 | 91.6 | 92.5 | 92.3 | 83.5 | 91.7 | 93.5 | 91.2 | 92.5 | 89.3 | 99.2 | 85.3 |
| Q47B1 | 91.4 | 92.5 | 92.0 | 83.6 | 91.5 | 93.5 | 91.2 | 92.4 | 88.7 | 99.2 | 84.8 |
| Q47B2 | 91.5 | 92.4 | 92.2 | 83.5 | 91.7 | 93.5 | 90.9 | 92.5 | 89.3 | 99.2 | 84.9 |
| Q47B3 | 91.5 | 92.4 | 92.3 | 83.5 | 91.7 | 93.5 | 91.1 | 92.5 | 89.3 | 99.2 | 85.2 |
| Q48 | 91.2 | 92.1 | 92.2 | 83.4 | 91.3 | 93.5 | 90.6 | 92.2 | 88.8 | 99.1 | 84.4 |
| Q49 | 91.1 | 92.0 | 92.2 | 83.1 | 91.3 | 93.5 | 90.6 | 92.2 | 88.8 | 99.1 | 84.5 |
| Q50 | 91.1 | 92.0 | 92.2 | 83.1 | 91.3 | 93.5 | 90.4 | 92.1 | 88.8 | 99.1 | 84.4 |
| Q51 | 91.1 | 92.0 | 92.2 | 83.1 | 91.2 | 93.5 | 90.5 | 92.0 | 88.7 | 99.1 | 84.4 |

See notes at end of table.

Table l-3. Faculty item response rates for items with < 85 percent response rate for any institution type before weight adjustments, overall and by institution type-Continued

| Variable | Overall | Public |  |  |  |  | Private, not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q52AA | 91.1 | 91.9 | 91.9 | 83.1 | 91.1 | 93.5 | 90.6 | 91.9 | 89.0 | 99.1 | 84.8 |
| Q52AB | 91.0 | 91.9 | 91.8 | 83.1 | 91.1 | 93.5 | 90.6 | 91.7 | 89.0 | 99.1 | 84.1 |
| Q52AC | 91.0 | 91.9 | 91.8 | 83.1 | 91.1 | 93.5 | 90.6 | 91.9 | 88.7 | 99.1 | 84.6 |
| Q52AD | 91.0 | 91.9 | 91.8 | 83.6 | 91.1 | 93.5 | 90.6 | 91.9 | 88.9 | 99.1 | 84.6 |
| Q52AE | 91.0 | 91.9 | 91.9 | 83.0 | 91.0 | 93.5 | 90.6 | 91.9 | 88.9 | 99.1 | 85.0 |
| Q52AF | 91.0 | 91.9 | 91.9 | 83.4 | 91.1 | 93.5 | 90.5 | 91.9 | 88.9 | 99.1 | 85.0 |
| Q52AG | 91.0 | 91.8 | 91.8 | 83.4 | 91.1 | 93.5 | 90.7 | 91.9 | 89.0 | 99.1 | 84.8 |
| Q52BA | 90.9 | 91.8 | 91.7 | 83.1 | 91.0 | 93.5 | 90.4 | 91.8 | 88.9 | 99.1 | 84.6 |
| Q52BB | 90.8 | 91.7 | 91.5 | 83.1 | 91.0 | 93.5 | 90.5 | 91.5 | 88.8 | 99.1 | 84.1 |
| Q52BC | 90.8 | 91.6 | 91.6 | 83.1 | 91.1 | 93.5 | 90.3 | 91.7 | 88.7 | 99.1 | 84.6 |
| Q52BD | 90.8 | 91.6 | 91.7 | 83.4 | 91.0 | 93.5 | 90.4 | 91.7 | 88.8 | 99.1 | 84.5 |
| Q52BE | 90.7 | 91.5 | 91.7 | 82.6 | 90.8 | 93.5 | 90.1 | 91.5 | 88.7 | 99.1 | 85.0 |
| Q52BF | 91.0 | 91.8 | 91.7 | 83.4 | 91.1 | 93.5 | 90.2 | 91.8 | 88.9 | 99.1 | 84.7 |
| Q52BG | 91.0 | 91.7 | 91.8 | 83.4 | 91.1 | 93.5 | 90.6 | 91.8 | 88.9 | 99.1 | 84.8 |
| Q53 | 91.3 | 92.2 | 92.2 | 83.2 | 91.5 | 93.5 | 90.7 | 91.8 | 88.9 | 99.2 | 85.0 |
| Q55 | 91.1 | 92.0 | 92.1 | 82.8 | 91.3 | 93.5 | 90.6 | 91.7 | 88.8 | 99.2 | 85.0 |
| Q56 | 84.6 | 89.4 | 88.1 | 73.9 | 72.1 | 89.6 | 87.4 | 84.7 | 82.9 | 98.4 | 72.8 |
| Q61A | 89.2 | 89.2 | 91.0 | 82.0 | 89.9 | 94.5 | 87.0 | 89.3 | 87.1 | 99.1 | 83.6 |
| Q61B | 87.4 | 87.3 | 89.3 | 82.0 | 87.9 | 93.3 | 84.3 | 88.1 | 86.2 | 99.1 | 81.8 |
| Q61C | 88.4 | 88.0 | 89.9 | 81.1 | 89.3 | 94.5 | 85.9 | 88.9 | 87.0 | 99.1 | 82.8 |
| Q61D | 85.9 | 85.9 | 87.8 | 80.5 | 86.6 | 92.7 | 82.9 | 85.6 | 84.4 | 99.0 | 80.0 |
| Q62A | 90.8 | 91.5 | 92.0 | 82.8 | 91.0 | 91.7 | 90.3 | 91.5 | 88.6 | 99.1 | 84.5 |
| Q62B | 90.5 | 91.4 | 91.5 | 82.8 | 90.8 | 93.5 | 89.5 | 91.3 | 88.2 | 99.0 | 84.1 |
| Q62C | 85.7 | 89.7 | 88.3 | 76.1 | 83.0 | 90.1 | 87.1 | 83.1 | 83.7 | 97.3 | 74.6 |
| Q62D | 90.7 | 91.6 | 92.1 | 82.8 | 90.7 | 93.5 | 90.0 | 91.4 | 88.4 | 99.1 | 84.9 |
| Q64 | 90.3 | 91.2 | 91.4 | 81.8 | 90.1 | 93.3 | 90.0 | 91.2 | 88.1 | 99.2 | 83.8 |
| Q65 | 89.8 | 90.8 | 91.1 | 81.2 | 89.6 | 88.9 | 89.6 | 91.0 | 87.4 | 98.6 | 83.4 |
| Q66A | 82.0 | 83.7 | 84.8 | 79.3 | 82.5 | 84.2 | 77.6 | 83.7 | 79.4 | 90.7 | 73.1 |
| Q66B | 84.3 | 85.8 | 85.9 | 80.3 | 84.6 | 86.0 | 81.8 | 85.7 | 81.2 | 94.8 | 76.5 |
| Q66C | 79.3 | 81.8 | 80.2 | 75.7 | 78.0 | 74.0 | 78.0 | 80.9 | 78.0 | 91.5 | 71.5 |
| Q66D | 79.4 | 81.7 | 80.5 | 76.0 | 78.4 | 74.7 | 77.7 | 81.0 | 78.0 | 91.9 | 71.6 |
| Q66E | 79.1 | 81.6 | 80.2 | 75.4 | 77.9 | 74.5 | 77.6 | 80.5 | 77.8 | 91.7 | 70.4 |
| Q66F | 82.6 | 84.1 | 84.0 | 78.9 | 82.9 | 84.7 | 79.8 | 83.1 | 80.4 | 94.7 | 74.4 |

See notes at end of table.

Table l-3. Faculty item response rates for items with < 85 percent response rate for any institution type before weight adjustments, overall and by institution type-Continued

| Variable | Overall | Public |  |  |  |  | Private, not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q67 | 90.4 | 91.5 | 91.7 | 82.7 | 90.6 | 92.5 | 89.1 | 91.4 | 88.3 | 99.1 | 83.1 |
| Q68 | 74.3 | 56.3 | 71.2 | 59.7 | 83.4 | 76.4 | 60.0 | 81.4 | 64.6 | 96.2 | 69.8 |
| Q69 | 64.5 | 46.1 | 65.5 | 45.8 | 72.2 | 64.7 | 47.8 | 74.9 | 58.0 | 91.4 | 61.8 |
| Q70B | 83.8 | 85.5 | 85.0 | 77.3 | 83.6 | 89.7 | 80.1 | 84.3 | 82.5 | 95.9 | 77.9 |
| Q82A | 89.2 | 89.9 | 90.1 | 81.9 | 89.7 | 90.9 | 87.6 | 89.6 | 87.4 | 98.9 | 82.7 |
| Q82B | 87.2 | 85.5 | 88.2 | 78.9 | 89.8 | 93.3 | 83.1 | 89.4 | 85.9 | 98.8 | 82.2 |
| Q82C | 86.9 | 88.2 | 88.0 | 78.5 | 86.9 | 87.5 | 85.3 | 87.0 | 86.1 | 98.6 | 80.1 |
| Q82D | 85.1 | 86.5 | 86.1 | 76.4 | 85.1 | 84.5 | 83.4 | 85.0 | 84.2 | 96.8 | 78.0 |
| Q83 | 89.9 | 90.8 | 90.9 | 82.5 | 90.3 | 92.6 | 88.2 | 90.7 | 87.3 | 99.1 | 83.7 |

NOTE: None of the items with less than 85 percent response rate were included in the abbreviated questionnaire, which consisted of items 1-28 and $71-81$.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004


Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | All faculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q32D | Percent time spent on other unspecified activities |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 56.52 |
| Q35A1 | Number of classes taught, credit |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q35A2 | Number of classes taught, noncredit |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q35B | Number of classes taught, remedial |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |
| Q35C | Number of classes taught, distance education |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |
| Q36 | Teaching assistant in any credit class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |
| Q37A1 | Number of weeks taught, 1st credit class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |
| Q37A2 | Number of weeks taught, 2nd credit class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.03 | 0.04 | $\dagger$ | 0.03 | 0.10 | $\dagger$ | 0.11 | $\dagger$ | 0.03 | $\dagger$ | 0.06 |
| Median estimated bias |  | 0.03 | 0.03 | $\dagger$ | 0.03 | 0.06 | $\dagger$ | 0.08 | $\dagger$ | 0.03 | $\dagger$ | 0.04 |
| Percent significant bias |  | 45.45 | 43.48 | $\dagger$ | 13.04 | 13.04 | $\dagger$ | 17.39 | $\dagger$ | 21.74 | $\dagger$ | 56.52 |

See notes at end of table.

Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | $\begin{array}{r} \text { All } \\ \text { faculty } \end{array}$ | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q37A3 | Number of weeks taught, 3rd credit class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.06 | 0.08 | $\dagger$ | 0.05 | 0.14 | $\dagger$ | 0.18 | 0.08 | 0.06 | $\dagger$ | 0.10 |
| Median estimated bias |  | 0.05 | 0.05 | $\dagger$ | 0.04 | 0.16 | $\dagger$ | 0.14 | 0.07 | 0.05 | $\dagger$ | 0.06 |
| Percent significant bias |  | 57.58 | 47.83 | $\dagger$ | 21.74 | 8.70 | $\dagger$ | 17.39 | 43.48 | 21.74 | $\dagger$ | 60.87 |
| Q37A4 | Number of weeks taught, 4th credit class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.12 | 0.17 | 0.18 | 0.10 | 0.19 | 0.09 | 0.28 | 0.17 | 0.12 | $\dagger$ | 0.12 |
| Median estimated bias |  | 0.10 | 0.14 | 0.16 | 0.08 | 0.13 | 0.07 | 0.25 | 0.16 | 0.10 | $\dagger$ | 0.08 |
| Percent significant bias |  | 60.61 | 52.17 | 13.04 | 26.09 | 13.04 | 30.43 | 26.09 | 17.39 | 26.09 | $\dagger$ | 60.87 |
| Q37A5 | Number of weeks taught, 5th credit class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.21 | 0.27 | 0.24 | 0.23 | 0.39 | 0.13 | 0.58 | 0.26 | 0.26 | $\dagger$ | 0.21 |
| Median estimated bias |  | 0.19 | 0.26 | 0.22 | 0.20 | 0.30 | 0.11 | 0.60 | 0.25 | 0.26 | $\dagger$ | 0.20 |
| Percent significant bias |  | 48.48 | 30.43 | 4.35 | 30.43 | 8.70 | 30.43 | 34.78 | 17.39 | 21.74 | $\dagger$ | 65.22 |
| Q37B1 | Number of credit hours, 1st class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |
| Q37B2 | Number of credit hours, 2nd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.04 | 0.05 | $\dagger$ | 0.03 | 0.10 | $\dagger$ | 0.12 | $\dagger$ | 0.04 | $\dagger$ | 0.05 |
| Median estimated bias |  | 0.03 | 0.03 | $\dagger$ | 0.03 | 0.06 | $\dagger$ | 0.09 | $\dagger$ | 0.04 | $\dagger$ | 0.04 |
| Percent significant bias |  | 51.52 | 47.83 | $\dagger$ | 13.04 | 13.04 | $\dagger$ | 17.39 | $\dagger$ | 26.09 | $\dagger$ | 56.52 |
| Q37B3 | Number of credit hours, 3rd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.07 | 0.09 | $\dagger$ | 0.05 | 0.14 | $\dagger$ | 0.17 | 0.09 | 0.06 | $\dagger$ | 0.09 |
| Median estimated bias |  | 0.05 | 0.07 | $\dagger$ | 0.04 | 0.16 | $\dagger$ | 0.13 | 0.08 | 0.05 | $\dagger$ | 0.04 |
| Percent significant bias |  | 57.58 | 47.83 | $\dagger$ | 17.39 | 8.70 | $\dagger$ | 17.39 | 47.83 | 26.09 | $\dagger$ | 60.87 |
| Q37B4 | Number of credit hours, 4th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.13 | 0.19 | 0.17 | 0.10 | 0.20 | 0.09 | 0.28 | 0.17 | 0.13 | $\dagger$ | 0.12 |
| Median estimated bias |  | 0.11 | 0.16 | 0.16 | 0.08 | 0.13 | 0.08 | 0.25 | 0.15 | 0.10 | $\dagger$ | 0.08 |
| Percent significant bias |  | 60.61 | 52.17 | 13.04 | 26.09 | 13.04 | 34.78 | 26.09 | 17.39 | 26.09 | $\dagger$ | 60.87 |
| Q37B5 | Number of credit hours, 5th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.21 | 0.30 | 0.24 | 0.23 | 0.39 | 0.13 | 0.58 | 0.27 | 0.28 | $\dagger$ | 0.21 |
| Median estimated bias |  | 0.19 | 0.27 | 0.22 | 0.20 | 0.30 | 0.10 | 0.60 | 0.28 | 0.27 | $\dagger$ | 0.20 |
| Percent significant bias |  | 51.52 | 43.48 | 4.35 | 30.43 | 13.04 | 30.43 | 34.78 | 21.74 | 21.74 | $\dagger$ | 65.22 |

Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | All faculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q37C1 | Number of hours taught per week, 1st class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 56.52 |
| Q37C2 | Number of hours taught per week, 2nd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.03 | 0.04 | $\dagger$ | 0.03 | 0.10 | $\dagger$ | 0.11 | $\dagger$ | 0.04 | $\dagger$ | 0.06 |
| Median estimated bias |  | 0.03 | 0.03 | $\dagger$ | 0.03 | 0.06 | $\dagger$ | 0.08 | $\dagger$ | 0.03 | $\dagger$ | 0.04 |
| Percent significant bias |  | 45.45 | 43.48 | $\dagger$ | 13.04 | 13.04 | $\dagger$ | 17.39 | $\dagger$ | 26.09 | $\dagger$ | 43.48 |
| Q37C3 | Number of hours taught per week, 3rd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.06 | 0.08 | $\dagger$ | 0.05 | 0.14 | $\dagger$ | 0.17 | 0.08 | 0.06 | $\dagger$ | 0.09 |
| Median estimated bias |  | 0.05 | 0.05 | $\dagger$ | 0.04 | 0.16 | $\dagger$ | 0.13 | 0.07 | 0.04 | $\dagger$ | 0.06 |
| Percent significant bias |  | 57.58 | 47.83 | $\dagger$ | 21.74 | 8.70 | $\dagger$ | 17.39 | 43.48 | 21.74 | $\dagger$ | 56.52 |
| Q37C4 | Number of hours taught per week, 4th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.12 | 0.17 | 0.18 | 0.09 | 0.19 | 0.09 | 0.27 | 0.16 | 0.12 | $\dagger$ | 0.12 |
| Median estimated bias |  | 0.10 | 0.14 | 0.17 | 0.09 | 0.13 | 0.08 | 0.22 | 0.13 | 0.10 | $\dagger$ | 0.06 |
| Percent significant bias |  | 60.61 | 52.17 | 17.39 | 26.09 | 8.70 | 30.43 | 26.09 | 17.39 | 26.09 | $\dagger$ | 26.09 |
| Q37C5 | Number of hours taught per week, 5 th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.21 | 0.27 | 0.24 | 0.23 | 0.37 | 0.13 | 0.57 | 0.25 | 0.27 | $\dagger$ | 0.21 |
| Median estimated bias |  | 0.19 | 0.25 | 0.22 | 0.19 | 0.30 | 0.10 | 0.60 | 0.26 | 0.25 | $\dagger$ | 0.20 |
| Percent significant bias |  | 51.52 | 34.78 | 4.35 | 30.43 | 13.04 | 34.78 | 34.78 | 26.09 | 17.39 | $\dagger$ | 65.22 |
| Q37D1 | Number of students, 1st class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 56.52 |
| Q37D2 | Number of students, 2nd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.03 | 0.04 | $\dagger$ | 0.03 | 0.10 | $\dagger$ | 0.12 | $\dagger$ | 0.04 | $\dagger$ | 0.07 |
| Median estimated bias |  | 0.03 | 0.02 | $\dagger$ | 0.03 | 0.06 | $\dagger$ | 0.09 | $\dagger$ | 0.03 | $\dagger$ | 0.03 |
| Percent significant bias |  | 45.45 | 43.48 | $\dagger$ | 13.04 | 13.04 | $\dagger$ | 17.39 | $\dagger$ | 26.09 | $\dagger$ | 56.52 |
| Q37D3 | Number of students, 3rd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.06 | 0.08 | $\dagger$ | 0.05 | 0.14 | $\dagger$ | 0.18 | 0.08 | 0.06 | $\dagger$ | 0.08 |
| Median estimated bias |  | 0.05 | 0.04 | $\dagger$ | 0.05 | 0.16 | $\dagger$ | 0.15 | 0.06 | 0.05 | $\dagger$ | 0.05 |
| Percent significant bias |  | 54.55 | 47.83 | $\dagger$ | 17.39 | 13.04 | $\dagger$ | 17.39 | 47.83 | 21.74 | $\dagger$ | 60.87 |

See notes at end of table.

Table I-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | faculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q37D4 | Number of students, 4th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.12 | 0.17 | 0.17 | 0.10 | 0.20 | 0.09 | 0.28 | 0.16 | 0.12 | $\dagger$ | 0.12 |
| Median estimated bias |  | 0.10 | 0.14 | 0.15 | 0.08 | 0.12 | 0.08 | 0.25 | 0.17 | 0.10 | $\dagger$ | 0.08 |
| Percent significant bias |  | 60.61 | 52.17 | 13.04 | 21.74 | 13.04 | 30.43 | 26.09 | 17.39 | 26.09 | $\dagger$ | 60.87 |
| Q37D5 | Number of students, 5th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.21 | 0.28 | 0.24 | 0.23 | 0.38 | 0.13 | 0.57 | 0.27 | 0.27 | $\dagger$ | 0.21 |
| Median estimated bias |  | 0.19 | 0.26 | 0.22 | 0.20 | 0.31 | 0.10 | 0.60 | 0.26 | 0.26 | $\dagger$ | 0.20 |
| Percent significant bias |  | 51.52 | 39.13 | 4.35 | 30.43 | 13.04 | 30.43 | 34.78 | 21.74 | 21.74 | $\dagger$ | 65.22 |
| Q37E1 | Primary level of students, 1st class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |
| Q37E2 | Primary level of students, 2nd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.03 | 0.04 | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | 0.11 | $\dagger$ | 0.04 | $\dagger$ | 0.05 |
| Median estimated bias |  | 0.02 | 0.02 | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | 0.08 | $\dagger$ | 0.03 | $\dagger$ | 0.02 |
| Percent significant bias |  | 45.45 | 43.48 | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | 39.13 | $\dagger$ | 21.74 | $\dagger$ | 56.52 |
| Q37E3 | Primary level of students, 3rd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.06 | 0.08 | $\dagger$ | 0.05 | 0.12 | $\dagger$ | 0.17 | 0.09 | 0.05 | $\dagger$ | 0.07 |
| Median estimated bias |  | 0.04 | 0.05 | $\dagger$ | 0.03 | 0.15 | $\dagger$ | 0.13 | 0.08 | 0.04 | $\dagger$ | 0.06 |
| Percent significant bias |  | 57.58 | 52.17 | $\dagger$ | 21.74 | 8.70 | $\dagger$ | 34.78 | 43.48 | 21.74 | $\dagger$ | 60.87 |
| Q37E4 | Primary level of students, 4th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.12 | 0.17 | 0.16 | 0.10 | 0.18 | 0.09 | 0.27 | 0.17 | 0.11 | $\dagger$ | 0.11 |
| Median estimated bias |  | 0.09 | 0.12 | 0.15 | 0.07 | 0.12 | 0.07 | 0.20 | 0.18 | 0.08 | $\dagger$ | 0.07 |
| Percent significant bias |  | 63.64 | 43.48 | 8.70 | 26.09 | 13.04 | 34.78 | 39.13 | 13.04 | 26.09 | $\dagger$ | 60.87 |
| Q37E5 | Primary level of students, 5th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.21 | 0.26 | 0.22 | 0.23 | 0.35 | 0.13 | 0.56 | 0.29 | 0.24 | $\dagger$ | 0.19 |
| Median estimated bias |  | 0.19 | 0.26 | 0.14 | 0.21 | 0.30 | 0.10 | 0.60 | 0.26 | 0.24 | $\dagger$ | 0.12 |
| Percent significant bias |  | 51.52 | 34.78 | 4.35 | 30.43 | 8.70 | 34.78 | 65.22 | 26.09 | 17.39 | $\dagger$ | 65.22 |
| Q37F1 | Teaching assistant, 1st class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |

[^46]Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | All faculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q37F2 | Teaching assistant, 2nd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.08 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | 0.05 | $\dagger$ | 0.07 |
| Median estimated bias |  | $\dagger$ | 0.02 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | 0.03 | $\dagger$ | 0.06 |
| Percent significant bias |  | $\dagger$ | 43.48 | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | 39.13 | $\dagger$ | 17.39 | $\dagger$ | 13.04 |
| Q37F3 | Teaching assistant, 3rd class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.06 | 0.08 | $\dagger$ | 0.05 | 0.13 | $\dagger$ | 0.17 | 0.09 | 0.06 | $\dagger$ | 0.08 |
| Median estimated bias |  | 0.04 | 0.05 | $\dagger$ | 0.04 | 0.15 | $\dagger$ | 0.13 | 0.07 | 0.06 | $\dagger$ | 0.04 |
| Percent significant bias |  | 54.55 | 47.83 | $\dagger$ | 17.39 | 8.70 | $\dagger$ | 34.78 | 30.43 | 26.09 | $\dagger$ | 60.87 |
| Q37F4 | Teaching assistant, 4th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.11 | 0.17 | 0.17 | 0.09 | 0.19 | 0.09 | 0.27 | 0.16 | 0.12 | $\dagger$ | 0.12 |
| Median estimated bias |  | 0.09 | 0.14 | 0.14 | 0.07 | 0.13 | 0.07 | 0.20 | 0.15 | 0.11 | $\dagger$ | 0.10 |
| Percent significant bias |  | 57.58 | 52.17 | 13.04 | 17.39 | 13.04 | 34.78 | 39.13 | 17.39 | 21.74 | $\dagger$ | 60.87 |
| Q37F5 | Teaching assistant, 5th class |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.20 | 0.26 | 0.20 | 0.23 | 0.37 | 0.13 | 0.56 | 0.26 | 0.26 | $\dagger$ | 0.19 |
| Median estimated bias |  | 0.19 | 0.21 | 0.15 | 0.20 | 0.32 | 0.10 | 0.65 | 0.20 | 0.27 | $\dagger$ | 0.15 |
| Percent significant bias |  | 51.52 | 34.78 | 8.70 | 30.43 | 13.04 | 30.43 | 65.22 | 8.70 | 21.74 | $\dagger$ | 65.22 |
| Q38A | Undergrad class, multiple choice midterm/final exams |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |
| Q38B | Undergrad class, essay midterm/final exams |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |
| Q38C | Undergrad class, short answer midterm/final exams |  |  |  |  |  |  |  | + | + | + |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |

[^47]Table I-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | $\begin{array}{r} \text { All } \\ \text { faculty } \end{array}$ | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q38D | Undergrad class, term/research papers |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | † | $\dagger$ | 8.70 |
| Q38E | Undergrad class, multiple drafts of written work |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |
| Q38F | Undergrad class, oral presentations |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |
| Q38G | Undergrad class, group projects |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |
| Q38H | Undergrad class, student evaluations of each others' work |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |
| Q381 | Undergrad class, laboratory/shop/studio assignments |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |
| Q38J | Undergrad class, service learn/co-op interactions with business |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.04 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | 0.10 |
| Median estimated bias |  | $\dagger$ | 0.03 | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 |
| Percent significant bias |  | $\dagger$ | 65.22 | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 47.83 | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |

Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

|  |  | All faculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | Variable label |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q39 | Web site for any instructional duties |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q41 | Hours per week, e-mailing students |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q46 | Individual instruction, any |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |


| - Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\rightharpoonup}{\boldsymbol{\rightharpoonup}}$ ( Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q47A2 | Individual instruction, number graduate students |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q47A3 | Individual instruction, number first-professional students |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q47B1 | Individual instruction, hours with undergraduates |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |

Table I-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | All faculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q47B2 | Individual instruction, hours with graduate students |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |

Mean estimated bias Median estimated bias hours instru professional students

Median estimated bias
Percent significant bias
Q48
Mean estimated bias
Median estimated bias
Percent significant bias

Hours per week, thesis/ dissertation committees

Median estimated bias Percent significant bias issertation committees Q49
Mean estimated bias
Median estimated bias
Percent significant bia
Q50

Mean estimated bias
Median estimated bias
Percent significant bias
Hours per week,
administrative committees

Hours per week, with advisees
Q51

Mean estimated bias
Median estimated bias Percent significant bias

Hours per week, office hours

| Q52AA | Career articles, refereed <br> journals |
| :--- | :--- |
| Mean estimated bias |  |
| Median estimated bias |  |
| Percent significant bias |  |


| $\dagger$ | $\dagger$ | $\dagger$ | 0.06 |
| :--- | :--- | :--- | ---: |
| $\dagger$ | $\dagger$ | $\dagger$ | 0.06 |
| $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |
|  |  |  |  |
|  |  |  |  |
| $\dagger$ | $\dagger$ | $\dagger$ | 0.07 |
| $\dagger$ | $\dagger$ | $\dagger$ | 0.06 |
| $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |

[^48]Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | $\begin{array}{r} \text { All } \\ \text { faculty } \end{array}$ | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q52AB | Career articles, nonrefereed journals |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |
| Q52AC | Career book reviews, chapters, creative works |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | + | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |
| Q52AD | Career books, textbooks, reports |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |
| Q52AE | Career presentations |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | † | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q52AF | Career exhibitions, performances |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q52AG | Career patents, computer software |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |
| Q52BA | Recent articles, refereed journals |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 56.52 |
| Q52BB | Recent articles, nonrefereed journals |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 56.52 |

See notes at end of table.

Table I-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | $\begin{array}{r} \text { All } \\ \text { faculty } \end{array}$ | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q52BC | Recent book reviews, chapters, creative works |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | + | $\dagger$ | $\dagger$ | 0.02 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 56.52 |
| Q52BD | Recent books, textbooks, reports |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 56.52 |
| Q52BE | Recent presentations |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q52BF | Recent exhibitions, performances |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.02 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 56.52 |
| Q52BG | Recent patents, computer software |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\dagger$ | $\dagger$ | $\dagger$ | $0.07$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |  |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | $0.06$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |
| Q53 | Scholarly activity, any |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q55 | Scholarly activity, any funded |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Q56 | Scholarly activity, description |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.04 | $\dagger$ | $\dagger$ | 0.03 | 0.11 | $\dagger$ | $\dagger$ | 0.02 | 0.04 | $\dagger$ | 0.09 |
| Median estimated bias |  | 0.04 | $\dagger$ | $\dagger$ | 0.03 | 0.07 | $\dagger$ | $\dagger$ | 0.01 | 0.03 | $\dagger$ | 0.05 |
| Percent significant bias |  | 48.48 | $\dagger$ | $\dagger$ | 17.39 | 8.70 | $\dagger$ | $\dagger$ | 30.43 | 26.09 | $\dagger$ | 60.87 |

[^49]Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | All faculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q61A | Satisfaction with authority to make decisions |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |
| Q61B | Satisfaction with technology-based activities |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 26.09 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 4.35 |
| Q61C | Satisfaction with equipment/facilities |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 21.74 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |
| Q61D | Satisfaction with institutional support for teaching improvement |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | 0.04 | $\dagger$ | 0.05 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | 0.02 | $\dagger$ | 0.04 | $\dagger$ | 0.04 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | 34.78 | $\dagger$ | 13.04 | $\dagger$ | 4.35 |
| Q62A | Satisfaction with workload |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |
| Q62B | Satisfaction with salary |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |
| Q62C | Satisfaction with benefits |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.09 | 0.03 | $\dagger$ | $\dagger$ | 0.04 | 0.04 | $\dagger$ | 0.06 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | 0.02 | $\dagger$ | $\dagger$ | 0.03 | 0.03 | $\dagger$ | 0.04 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 26.09 | 17.39 | $\dagger$ | $\dagger$ | 21.74 | 21.74 | $\dagger$ | 17.39 |
| Q62D | Satisfaction with job overall |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 |

See notes at end of table.

Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | All faculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q64 | Retired from another position |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |
| Q65 | Retire from all paid employment, planned age |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.04 | 0.05 | 0.11 | 0.07 | 0.12 | 0.04 | 0.18 | 0.08 | 0.06 | 0.08 | 0.14 |
| Median estimated bias |  | 0.03 | 0.03 | 0.10 | 0.05 | 0.10 | 0.04 | 0.14 | 0.05 | 0.05 | 0.07 | 0.08 |
| Percent significant bias |  | 18.18 | 34.78 | 17.39 | 4.35 | 8.70 | 17.39 | 21.74 | 13.04 | 13.04 | 21.74 | 17.39 |
| Q66A | Amount of income from basic salary from institution |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.03 | 0.03 | 0.06 | 0.03 | 0.07 | 0.03 | 0.09 | 0.03 | 0.04 | $\dagger$ | 0.06 |
| Median estimated bias |  | 0.02 | 0.01 | 0.05 | 0.02 | 0.05 | 0.02 | 0.06 | 0.02 | 0.02 | $\dagger$ | 0.04 |
| Percent significant bias |  | 39.39 | 47.83 | 17.39 | 13.04 | 8.70 | 26.09 | 13.04 | 34.78 | 17.39 | $\dagger$ | 30.43 |
| Q66B | Amount of income from other income from institution |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.02 | $\dagger$ | $\dagger$ | 0.03 | 0.06 | $\dagger$ | 0.08 | $\dagger$ | 0.04 | $\dagger$ | 0.06 |
| Median estimated bias |  | 0.02 | $\dagger$ | $\dagger$ | 0.02 | 0.05 | $\dagger$ | 0.06 | $\dagger$ | 0.02 | $\dagger$ | 0.04 |
| Percent significant bias |  | 42.42 | $\dagger$ | $\dagger$ | 13.04 | 8.70 | $\dagger$ | 13.04 | $\dagger$ | 4.35 | $\dagger$ | 26.09 |
| Q66C | Amount of income from other academic institution |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.03 | 0.03 | 0.06 | 0.03 | 0.07 | 0.03 | 0.09 | 0.04 | 0.04 | $\dagger$ | 0.07 |
| Median estimated bias |  | 0.02 | 0.02 | 0.05 | 0.03 | 0.03 | 0.02 | 0.07 | 0.03 | 0.02 | $\dagger$ | 0.03 |
| Percent significant bias |  | 30.30 | 39.13 | 8.70 | 13.04 | 13.04 | 26.09 | 13.04 | 17.39 | 17.39 | $\dagger$ | 21.74 |
| Q66D | Amount of income from consulting or freelance work |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.03 | 0.03 | 0.06 | 0.03 | 0.07 | 0.03 | 0.08 | 0.04 | 0.04 | $\dagger$ | 0.06 |
| Median estimated bias |  | 0.02 | 0.01 | 0.06 | 0.02 | 0.04 | 0.02 | 0.04 | 0.03 | 0.03 | $\dagger$ | 0.05 |
| Percent significant bias |  | 33.33 | 34.78 | 8.70 | 13.04 | 13.04 | 21.74 | 13.04 | 17.39 | 8.70 | $\dagger$ | 21.74 |
| Q66E | Amount of income from other employment |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.03 | 0.03 | 0.06 | 0.03 | 0.07 | 0.03 | 0.08 | 0.04 | 0.04 | $\dagger$ | 0.06 |
| Median estimated bias |  | 0.02 | 0.01 | 0.05 | 0.02 | 0.04 | 0.02 | 0.06 | 0.03 | 0.03 | $\dagger$ | 0.04 |
| Percent significant bias |  | 30.30 | 34.78 | 4.35 | 13.04 | 8.70 | 21.74 | 13.04 | 17.39 | 13.04 | $\dagger$ | 21.74 |

[^50]Table I-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | All faculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q66F | Amount of income from other unspecified sources |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.03 | 0.02 | 0.06 | 0.03 | 0.07 | 0.03 | 0.07 | 0.04 | 0.04 | $\dagger$ | 0.06 |
| Median estimated bias |  | 0.02 | 0.02 | 0.05 | 0.02 | 0.05 | 0.02 | 0.06 | 0.03 | 0.03 | $\dagger$ | 0.04 |
| Percent significant bias |  | 48.48 | 47.83 | 13.04 | 8.70 | 8.70 | 21.74 | 13.04 | 34.78 | 4.35 | $\dagger$ | 26.09 |
| Q67 | Type of contract, length of unit |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.06 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 4.35 |
| Q68 | Income paid per course/ credit unit or term |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.11 | 0.15 | 0.14 | 0.15 | 0.35 | 0.09 | 0.24 | 0.18 | 0.11 | $\dagger$ | 0.15 |
| Median estimated bias |  | 0.07 | 0.12 | 0.09 | 0.07 | 0.37 | 0.03 | 0.20 | 0.12 | 0.07 | $\dagger$ | 0.07 |
| Percent significant bias |  | 39.39 | 43.48 | 17.39 | 17.39 | 8.70 | 30.43 | 39.13 | 43.48 | 17.39 | $\dagger$ | 26.09 |
| Q69 | Amount of income paid per course/credit unit or term |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.13 | 0.20 | 0.17 | 0.17 | 0.37 | 0.11 | 0.28 | 0.28 | 0.13 | $\dagger$ | 0.18 |
| Median estimated bias |  | 0.08 | 0.14 | 0.14 | 0.07 | 0.39 | 0.05 | 0.28 | 0.18 | 0.08 | $\dagger$ | 0.10 |
| Percent significant bias |  | 42.42 | 52.17 | 13.04 | 26.09 | 100.00 | 39.13 | 30.43 | 47.83 | 17.39 | $\dagger$ | 21.74 |
| Q70B | Amount of total household income (range) |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.02 | $\dagger$ | $\dagger$ | 0.03 | 0.08 | $\dagger$ | 0.08 | 0.03 | 0.03 | $\dagger$ | 0.06 |
| Median estimated bias |  | 0.02 | $\dagger$ | $\dagger$ | 0.03 | 0.07 | $\dagger$ | 0.07 | 0.03 | 0.02 | $\dagger$ | 0.04 |
| Percent significant bias |  | 42.42 | $\dagger$ | $\dagger$ | 13.04 | 17.39 | $\dagger$ | 26.09 | 17.39 | 13.04 | $\dagger$ | 21.74 |
| Q82A | Opinion: teaching is rewarded |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |
| Q82B | Opinion: part-time faculty treated fairly |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | 39.13 | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |

See notes at end of table.

Table l-4. Summary of faculty item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004Continued

| Variable | Variable label | Allfaculty | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| Q82C | Opinion: female faculty treated fairly |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 13.04 |
| Q82D | Opinion: racial minorities treated fairly |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.08 | $\dagger$ | 0.06 | 0.02 | $\dagger$ | 0.04 | $\dagger$ | 0.06 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | 0.07 | 0.02 | $\dagger$ | 0.04 | $\dagger$ | 0.05 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | 4.35 | 34.78 | $\dagger$ | 17.39 | $\dagger$ | 17.39 |
| Q83 | Opinion about choosing an academic career again |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 17.39 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | 8.70 |

$\dagger$ Not applicabicant bia
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Similarly, an institution was defined to be an item respondent for an analytic variable if the given institution had data for that variable, observed or deduced via logical imputation. Table I-5 provides a summary of response rates for all institution items, overall and by institution type. For variables with a response rate less than 85 percent-overall or within an institution type-a nonresponse bias analysis was conducted, results of which are summarized in table I-6. Analogous to the faculty item nonresponse bias analysis, for these items the nonresponse bias was estimated for variables known for both respondents and nonrespondents and tested (adjusting for multiple comparisons) to determine if the bias was significant at the 5 percent level.

Two of the 90 items had an overall response rate of less than 85 percent. Item 7E2 of the institution questionnaire was asked only if the institution reported having offered early or phased retirement to any tenured full-time faculty or instructional staff (item 7E). Apparently, the number of full-time faculty and instructional staff who took early or phased retirement in the previous 5 years was difficult for some institutions to quantify. Asking about a single academic year may yield a lower rate of nonresponse.

Item 15 BG was asked if the institution reported having a cafeteria-style plan benefit for all or some part-time faculty and instructional staff (item 15AG). Only a small percentage of schools offer this benefit to part-time staff, and a relatively high percentage of schools were not sure whether this benefit was offered. Hence the high nonresponse on this nested question asking whether the benefit was subsidized is due almost entirely to the nonresponse on the gate question, coupled with the small number of schools to which the nested item applied.

Table l-5. Institution item response rates for items with <85 percent response rate for any institution type before weight adjustment, overall and by institution type: 2004


SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table I-6. Summary of institution item nonresponse bias analysis before weight adjustments, overall and by institution type: 2004

| Variable | Variable label | $\begin{array}{r} \text { All } \\ \text { faculty } \end{array}$ | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| 12A | Full-time numbers: faculty, fall 2002 |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 12.50 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 12B | Full-time numbers: changed from part to full time, 2002-03 |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 12.50 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| I2C | Full-time numbers: hired, 2002-03 |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 12.50 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| I2D | Full-time numbers: retired, 2002-03 |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 12.50 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| I2E | Full-time numbers: left for other reasons, 2002-03 |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 12.50 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| I2F | Full-time numbers: changed from full to part time, 2002-03 |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.04 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.03 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 12.50 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 14 | Full-time tenure: number considered for tenure, 2002-03 |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 6.25 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 15 | Full-time tenure: number granted tenure, 2002-03 |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 6.25 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |


| Variable | Variable label | $\begin{array}{r} \text { All } \\ \text { faculty } \\ \hline \end{array}$ | Public |  |  |  |  | Private not-for-profit |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Doctor's | Master's | Bachelor's | Associate's | Other | Doctor's | Master's | Bachelor's | Associate's | Other |
| 17A | Full-time tenure: changed tenure policy |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | \# | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 25.00 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 17B | Full-time tenure: more stringent tenure standards |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | \# | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 25.00 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 17 C | Full-time tenure: downsized tenured faculty |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | \# | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 25.00 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 17D | Full-time tenure: replaced tenured with fixed term |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | \# | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 25.00 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 17E | Full-time tenure: offered early retirement |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 0.01 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | \# | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | 25.00 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 17E2 | Full-time tenure: number early retirees, last 5 years |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | 0.13 | 0.09 | 0.01 | 0.17 | 0.50 | 0.14 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | 0.10 | 0.07 | \# | 0.22 | 0.42 | 0.07 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | 7.69 | 6.25 | \# | 6.25 | 12.50 | 12.50 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| 19 | Full-time faculty: positions sought to fill, fall 2003 |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | 0.08 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | 0.05 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | 6.25 | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| I15BA | Part-time benefit: medical insurance subsidized |  |  |  |  |  |  |  |  |  |  |  |
| Mean estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | \# | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Median estimated bias |  | $\dagger$ | $\dagger$ | $\dagger$ | \# | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |
| Percent significant bias |  | $\dagger$ | $\dagger$ | $\dagger$ | \# | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ | $\dagger$ |

See notes at end of table.


## I. 4 Bias Reduction due to Imputation

Bias resulting from missing data can occur at the unit level due to differential nonresponse or undercoverage, while bias at the item level is often due to unanswered questions or inconsistent responses that are typically set to missing once they fail edit checks. Section I. 2 described measures taken to reduce bias due to unit nonresponse, while this section evaluates how well the imputation succeeded in reducing bias for items with a weighted response rate of less than 85 percent (using weights prior to nonresponse adjustment) by estimating bias before and after imputation. For continuous variables, the estimated bias was calculated as the mean before imputation minus the mean after imputation. For categorical variables, the estimated bias was computed for each category as the percentage of faculty members in that category before imputation minus the corresponding percentage after imputation. The estimated bias was then tested (adjusting for multiple comparisons) to determine if the bias was significant at the 5 percent level. A categorical variable was considered significantly biased if the bias for any of its categories was significant. The results for faculty items are shown in table I-7 for continuous variables and table I-8 for categorical variables.

Table l-7. Faculty item nonresponse bias analysis for continuous variables, before and after imputation: 2004

| Item | Mean |  | Bias |  | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Before imputation | After imputation | Estimated | Relative |  |
| Q37A2 | 13.68 | 13.65 | 0.03 | 0.002 | N |
| Q37A3 | 13.80 | 13.73 | 0.07 | 0.005 | Y |
| Q37A4 | 13.73 | 13.64 | 0.10 | 0.007 | Y |
| Q37A5 | 13.68 | 13.52 | 0.16 | 0.012 | Y |
| Q37B2 | 3.05 | 3.06 | 0.00 | -0.001 | N |
| Q37B3 | 2.95 | 2.94 | 0.01 | 0.002 | N |
| Q37B4 | 2.81 | 2.80 | 0.01 | 0.003 | N |
| Q37B5 | 2.70 | 2.69 | 0.01 | 0.004 | N |
| Q37C2 | 3.94 | 3.95 | -0.01 | -0.003 | N |
| Q37C3 | 3.85 | 3.88 | -0.03 | -0.008 | N |
| Q37C4 | 3.85 | 3.83 | 0.02 | 0.005 | N |
| Q37C5 | 3.95 | 3.99 | -0.04 | -0.010 | N |
| Q37D2 | 25.36 | 25.42 | -0.06 | -0.002 | N |
| Q37D3 | 23.37 | 23.32 | 0.05 | 0.002 | N |
| Q37D4 | 22.65 | 22.82 | -0.17 | -0.008 | N |
| Q37D5 | 21.40 | 21.75 | -0.36 | -0.016 | N |
| Q65 | 66.13 | 66.36 | -0.23 | -0.004 | Y |
| Q66A | 43,383.00 | 42,799.04 | 583.90 | 0.014 | Y |
| Q66B | 3,210.20 | 3,220.17 | -9.93 | -0.003 | N |
| Q66C | 2,631.30 | 2,819.71 | -188.39 | -0.067 | Y |
| Q66D | 2,602.80 | 2,509.66 | 93.17 | 0.037 | Y |
| Q66E | 11,247.00 | 10,760.89 | 486.00 | 0.045 | Y |
| Q66F | 6,480.60 | 6,499.25 | -18.68 | -0.003 | N |
| Q69 | 1,921.30 | 1,978.28 | -56.95 | -0.029 | N |

NOTE: None of the items with less than 85 percent response rate were included in the abbreviated questionnaire, which consisted of items 1-28 and 71-81.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table l-8. Faculty item nonresponse bias analysis for categorical variables, before and after imputation: 2004

| Item | Response Category ${ }^{1}$ | Percent distribution |  | Bias |  | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Before | After | Estimated | Relative |  |
| Q37E2 | 1 | 82.09 | 81.60 | 0.49 | 0.01 | Y |
| Q37E2 | 2 | 14.21 | 14.29 | -0.08 | -0.01 | N |
| Q37E2 | 3 | 3.70 | 4.11 | -0.41 | -0.10 | Y |
| Q37E3 | 1 | 84.51 | 84.38 | 0.13 | 0.00 | N |
| Q37E3 | 2 | 12.58 | 12.42 | 0.16 | 0.01 | N |
| Q37E3 | 3 | 2.91 | 3.20 | -0.29 | -0.09 | Y |
| Q37E4 | 1 | 88.25 | 87.78 | 0.47 | 0.01 | N |
| Q37E4 | 2 | 9.27 | 9.33 | -0.06 | -0.01 | N |
| Q37E4 | 3 | 2.48 | 2.89 | -0.41 | -0.14 | Y |
| Q37E5 | 1 | 91.09 | 90.09 | 1.00 | 0.01 | Y |
| Q37E5 | 2 | 6.30 | 6.59 | -0.29 | -0.04 | N |
| Q37E5 | 3 | 2.61 | 3.32 | -0.71 | -0.21 | Y |
| Q37F3 | 0 | 91.17 | 90.83 | 0.33 | 0.00 | Y |
| Q37F3 | 1 | 8.83 | 9.17 | -0.33 | -0.04 | Y |
| Q37F4 | 0 | 92.03 | 91.94 | 0.08 | 0.00 | N |
| Q37F4 | 1 | 7.97 | 8.06 | -0.08 | -0.01 | N |
| Q37F5 | 0 | 92.60 | 91.98 | 0.62 | 0.01 | Y |
| Q37F5 | 1 | 7.40 | 8.02 | -0.62 | -0.08 | Y |
| Q56 | 1 | 42.74 | 42.78 | -0.03 | 0.00 | N |
| Q56 | 2 | 21.82 | 21.50 | 0.32 | 0.01 | N |
| Q56 | 3 | 10.76 | 10.64 | 0.13 | 0.01 | N |
| Q56 | 4 | 15.42 | 15.56 | -0.15 | -0.01 | N |
| Q56 | 5 | 9.26 | 9.52 | -0.26 | -0.03 | N |
| Q68 | 1 | 37.81 | 36.87 | 0.95 | 0.03 | Y |
| Q68 | 2 | 33.54 | 33.17 | 0.38 | 0.01 | N |
| Q68 | 3 | 8.92 | 9.36 | -0.44 | -0.05 | Y |
| Q68 | 4 | 19.73 | 20.61 | -0.89 | -0.04 | Y |
| Q70B | 1 | 3.01 | 2.71 | 0.30 | 0.11 | Y |
| Q70B | 2 | 11.87 | 11.21 | 0.66 | 0.06 | Y |
| Q70B | 3 | 22.09 | 21.54 | 0.55 | 0.03 | Y |
| Q70B | 4 | 20.24 | 20.61 | -0.37 | -0.02 | N |
| Q70B | 5 | 24.91 | 25.66 | -0.75 | -0.03 | Y |
| Q70B | 6 | 9.55 | 9.91 | -0.36 | -0.04 | Y |
| Q70B | 7 | 6.24 | 6.22 | 0.02 | 0.00 | N |
| Q70B | 8 | 2.10 | 2.14 | -0.04 | -0.02 | N |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

The above analyses were repeated for institution items as well, the analogous results of which are summarize in tables I-9 and I-10. Again, for continuous variables, the estimated bias was calculated as the mean before imputation minus the mean after imputation, while for categorical variables, the estimated bias was computed for each category as the percentage of institutions in that category before imputation minus the corresponding percentage after
imputation. The estimated bias was then tested (adjusting for multiple comparisons) to determine if the bias was significant at the 5 percent level.

Table I-9. Institution item nonresponse bias analysis for continuous variables, before and after imputation: 2004

| Variable | Mean |  | Bias |  | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Before Imputation | After Imputation | Estimated | Relative |  |
| Q37A2 | 13.68 | 13.65 | 0.03 | 0.00 | N |
| Q37A3 | 13.80 | 13.73 | 0.07 | 0.01 | Y |
| Q37A4 | 13.73 | 13.64 | 0.10 | 0.01 | Y |
| Q37A5 | 13.68 | 13.52 | 0.16 | 0.01 | Y |
| Q37B2 | 3.05 | 3.06 | 0.00 | 0.00 | N |
| Q37B3 | 2.95 | 2.94 | 0.01 | 0.00 | N |
| Q37B4 | 2.81 | 2.80 | 0.01 | 0.00 | N |
| Q37B5 | 2.70 | 2.69 | 0.01 | 0.00 | N |
| Q37C2 | 3.94 | 3.95 | -0.01 | 0.00 | N |
| Q37C3 | 3.85 | 3.88 | -0.03 | -0.01 | N |
| Q37C4 | 3.85 | 3.83 | 0.02 | 0.01 | N |
| Q37C5 | 3.95 | 3.99 | -0.04 | -0.01 | N |
| Q37D2 | 25.36 | 25.42 | -0.06 | 0.00 | N |
| Q37D3 | 23.37 | 23.32 | 0.05 | 0.00 | N |
| Q37D4 | 22.65 | 22.82 | -0.17 | -0.01 | N |
| Q37D5 | 21.40 | 21.75 | -0.36 | -0.02 | N |
| Q65 | 66.13 | 66.36 | -0.23 | 0.00 | Y |
| Q66A | 43383.00 | 42799.04 | 583.90 | 0.01 | Y |
| Q66B | 3210.20 | 3220.17 | -9.93 | 0.00 | N |
| Q66C | 2631.30 | 2819.71 | -188.39 | -0.07 | Y |
| Q66D | 2602.80 | 2509.66 | 93.17 | 0.04 | Y |
| Q66E | 11247.00 | 10760.89 | 486.00 | 0.05 | Y |
| Q66F | 6480.60 | 6499.25 | -18.68 | 0.00 | N |
| Q69 | 1921.30 | 1978.28 | -56.95 | -0.03 | N |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table I-10. Institution item nonresponse bias analysis for categorical variables, before and after imputation: 2004

| Variable | Category | Percent distribution |  | Bias |  | Significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Before Imputation | After Imputation | Estimated | Relative |  |
| Q15 | 1 | 70.23 | 68.96 | 1.27 | 0.02 | Y |
| Q15 | 2 | 10.17 | 11.67 | -1.50 | -0.13 | Y |
| Q15 | 3 | 19.60 | 19.37 | 0.23 | 0.01 | N |
| Q37E2 | 1 | 82.09 | 81.60 | 0.49 | 0.01 | Y |
| Q37E2 | 2 | 14.21 | 14.29 | -0.08 | -0.01 | N |
| Q37E2 | 3 | 3.70 | 4.11 | -0.41 | -0.10 | Y |
| Q37E3 | 1 | 84.51 | 84.38 | 0.13 | 0.00 | N |
| Q37E3 | 2 | 12.58 | 12.42 | 0.16 | 0.01 | N |
| Q37E3 | 3 | 2.91 | 3.20 | -0.29 | -0.09 | Y |
| Q37E4 | 1 | 88.25 | 87.78 | 0.47 | 0.01 | N |
| Q37E4 | 2 | 9.27 | 9.33 | -0.06 | -0.01 | N |
| Q37E4 | 3 | 2.48 | 2.89 | -0.41 | -0.14 | Y |
| Q37E5 | 1 | 91.09 | 90.09 | 1.00 | 0.01 | Y |
| Q37E5 | 2 | 6.30 | 6.59 | -0.29 | -0.04 | N |
| Q37E5 | 3 | 2.61 | 3.32 | -0.71 | -0.21 | Y |
| Q37F2 | 0 | 88.48 | 88.04 | 0.44 | 0.01 | Y |
| Q37F2 | 1 | 11.52 | 11.96 | -0.44 | -0.04 | Y |
| Q37F3 | 0 | 91.17 | 90.83 | 0.33 | 0.00 | Y |
| Q37F3 | 1 | 8.83 | 9.17 | -0.33 | -0.04 | Y |
| Q37F4 | 0 | 92.03 | 91.94 | 0.08 | 0.00 | N |
| Q37F4 | 1 | 7.97 | 8.06 | -0.08 | -0.01 | N |
| Q37F5 | 0 | 92.60 | 91.98 | 0.62 | 0.01 | Y |
| Q37F5 | 1 | 7.40 | 8.02 | -0.62 | -0.08 | Y |
| Q56 | 1 | 42.74 | 42.78 | -0.03 | 0.00 | N |
| Q56 | 2 | 21.82 | 21.50 | 0.32 | 0.01 | N |
| Q56 | 3 | 10.76 | 10.64 | 0.13 | 0.01 | N |
| Q56 | 4 | 15.42 | 15.56 | -0.15 | -0.01 | N |
| Q56 | 5 | 9.26 | 9.52 | -0.26 | -0.03 | N |
| Q68 | 1 | 37.81 | 36.87 | 0.95 | 0.03 | Y |
| Q68 | 2 | 33.54 | 33.17 | 0.38 | 0.01 | N |
| Q68 | 3 | 8.92 | 9.36 | -0.44 | -0.05 | Y |
| Q68 | 4 | 19.73 | 20.61 | -0.89 | -0.04 | Y |
| Q70B | 1 | 3.01 | 2.71 | 0.30 | 0.11 | Y |
| Q70B | 2 | 11.87 | 11.21 | 0.66 | 0.06 | Y |
| Q70B | 3 | 22.09 | 21.54 | 0.55 | 0.03 | Y |
| Q70B | 4 | 20.24 | 20.61 | -0.37 | -0.02 | N |
| Q70B | 5 | 24.91 | 25.66 | -0.75 | -0.03 | Y |
| Q70B | 6 | 9.55 | 9.91 | -0.36 | -0.04 | Y |
| Q70B | 7 | 6.24 | 6.22 | 0.02 | 0.00 | N |
| Q70B | 8 | 2.10 | 2.14 | -0.04 | -0.02 | N |
| Q82D | 1 | 58.09 | 57.76 | 0.33 | 0.01 | N |
| Q82D | 2 | 33.87 | 34.09 | -0.22 | -0.01 | N |
| Q82D | 3 | 6.06 | 6.16 | -0.11 | -0.02 | N |
| Q82D | 4 | 1.99 | 1.99 | 0.00 | 0.00 | N |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

## I. 5 Temporal Analysis

Additionally, potential bias due to nonresponse was assessed by comparing the data obtained from those who responded earlier in the field period against late respondents. Specifically, the pattern of mean response in reference to the date surveys were secured was modeled for various faculty subdomains for each of the following institution sectors:

- two-year institutions;
- four-year doctoral institutions; and
- four-year non-doctoral institutions.

Moreover, these response patterns were modeled at the overall level regardless of institution sector as well.

For this purpose, the length of the field period was divided into the following mutually exclusive and exhaustive nine milestones:

- before the early response incentive period ended-day 1 to day 28 ;
- day 29 to day 60;
- day 61 to day 90 ;
- day 91 to day 120 ;
- day 121 to day 150 ;
- day 151 to day 180 ;
- day 181 to day 210 ;
- day 211 to day 240; and
- beyond day 240 -when the abbreviated questionnaire was administered after September 14, 2004.

Subsequently, the pattern of mean response was modeled for subdomains of faculty and instructional staff by institution sector and overall including:

- percentage of full-time faculty whose principal activity is teaching;
- percentage of full-time faculty whose highest degree is a Ph.D.;
- percentage of part-time faculty whose highest degree is a Ph.D.;
- mean age of full-time faculty;
- percentage of faculty responding via computer assisted telephone interview (CATI);
- percentage of faculty responding via the Web;
- percentage of male faculty; and
- percentage of female faculty.

The mean response rates remain monotonous across time in virtually all cases. In particular, these rates display few or no fluctuations between the early and late field periods.

Table I-11 displays the faculty response over time based on institution type and classification; table I-12 displays responses based on mean age and income.

Since no significant differences were found at the nominal 5 percent level, this suggests that no discernible bias has been introduced by securing survey responses late in the field period. The only differences that were significant were those comparing percentages of faculty responding via CATI or the Web at the beginning to those at the last period of data collection. Figures I-1 and I-2 provide a visual summary of the results for CATI and Web responses; on each graph the plotted lines reflect the cumulative mean response rates (unweighted) for the specific subdomain of faculty members, overall and by institution sector. However, such differences are intuitive, as during the first part of the field period (day 1 to 28) faculty members were offered incentives to complete the survey via the Web and no outbound calls were made to secure responses by CATI.

Table l-11. Cumulative faculty response rates by faculty and institution characteristics, by date: 2004

| Faculty/institution type | Response time in days |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | < $=28$ | <=60 | <=90 | <=120 | <=150 | <=180 | <=210 | <=240 | SEP14+ |
| Full-time faculty whose principal activity is teaching |  |  |  |  |  |  |  |  |  |
| 2-year | 82.1 | 84.8 | 82.2 | 83.9 | 87.5 | 93.8 | 92.3 | 100.0 | 88.6 |
| Doctoral | 51.8 | 53.1 | 50.3 | 47.9 | 48.4 | 39.7 | 47.6 | 22.2 | 52.1 |
| Nondoctoral | 80.0 | 78.3 | 78.4 | 83.5 | 70.4 | 61.1 | 100.0 | 100.0 | 82.9 |
| Overall | 63.5 | 65.4 | 62.6 | 62.2 | 61.1 | 53.3 | 71.4 | 63.2 | 67.1 |
| Full-time faculty whose highest degree is a Ph.D. |  |  |  |  |  |  |  |  |  |
| 2-year | 53.9 | 44.2 | 34.5 | 28.2 | 26.5 | 12.9 | 24.5 | 20.0 | 34.9 |
| Doctoral | 83.1 | 76.3 | 70.1 | 67.8 | 61.5 | 52.7 | 53.8 | 52.9 | 68.0 |
| Nondoctoral | 74.5 | 60.9 | 55.0 | 55.2 | 45.4 | 32.7 | 34.8 | 60.0 | 57.7 |
| Overall | 74.8 | 63.4 | 56.0 | 52.8 | 45.5 | 31.8 | 36.5 | 40.4 | 55.6 |
| Part-time faculty whose highest degree is a Ph.D. |  |  |  |  |  |  |  |  |  |
| 2-year | 46.1 | 55.8 | 65.5 | 71.8 | 73.5 | 87.1 | 75.5 | 80.0 | 65.1 |
| Doctoral | 16.9 | 23.7 | 29.9 | 32.2 | 38.5 | 47.3 | 46.2 | 47.1 | 32.0 |
| Nondoctoral | 25.5 | 39.1 | 45.0 | 44.8 | 54.6 | 67.3 | 65.2 | 40.0 | 42.3 |
| Overall | 25.2 | 36.6 | 44.0 | 47.2 | 54.5 | 68.2 | 63.5 | 59.6 | 44.4 |
| Full-time faculty who teach undergraduates |  |  |  |  |  |  |  |  |  |
| 2-year | 97.4 | 97.0 | 95.3 | 99.1 | 98.2 | 100.0 | 100.0 | 100.0 | 96.4 |
| Doctoral | 67.7 | 67.0 | 65.7 | 64.9 | 60.6 | 62.1 | 71.4 | 55.6 | 74.7 |
| Nondoctoral | 93.9 | 93.2 | 95.3 | 93.7 | 92.6 | 88.9 | 100.0 | 100.0 | 85.8 |
| Overall | 78.8 | 79.2 | 78.0 | 77.3 | 75.1 | 73.9 | 85.7 | 78.9 | 81.7 |
| Full-time faculty whose highest degree is a Ph.D. |  |  |  |  |  |  |  |  |  |
| 2-year | 18.6 | 18.3 | 14.2 | 14.3 | 16.1 | 12.5 | 15.4 | 25.0 | 17.5 |
| Doctoral | 71.2 | 67.6 | 65.3 | 65.1 | 62.6 | 70.7 | 57.1 | 33.3 | 65.6 |
| Nondoctoral | 64.7 | 61.7 | 58.2 | 62.7 | 55.6 | 61.1 | 87.5 | 83.3 | 57.1 |
| Overall | 61.6 | 56.5 | 54.3 | 56.1 | 51.3 | 58.7 | 50.0 | 47.4 | 54.4 |
| Part-time faculty whose highest degree is a Ph.D. |  |  |  |  |  |  |  |  |  |
| 2-year | 9.8 | 8.4 | 6.2 | 9.8 | 11.0 | 13.0 | 10.0 | 18.8 | 9.7 |
| Doctoral | 30.0 | 31.5 | 27.4 | 28.0 | 21.6 | 15.4 | 27.8 | 25.0 | 35.1 |
| Nondoctoral | 21.5 | 19.9 | 20.7 | 22.7 | 24.6 | 16.2 | 26.7 | 75.0 | 25.6 |
| Overall | 20.1 | 18.4 | 16.4 | 18.3 | 17.0 | 14.2 | 17.8 | 28.6 | 21.8 |

[^51]Table l-11. Cumulative faculty response rates by faculty and institution characteristics, by date: 2004-Continued

| Faculty/institution type | Response time in days |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | <=28 | <=60 | <=90 | <=120 | <=150 | <=180 | <=210 | < $=240$ | SEP14+ |
| Full-time faculty who are tenured |  |  |  |  |  |  |  |  |  |
| 2-year | 44.1 | 52.4 | 46.2 | 53.6 | 42.9 | 62.5 | 46.2 | 75.0 | 53.0 |
| Doctoral | 45.6 | 51.8 | 45.3 | 45.0 | 45.8 | 51.7 | 52.4 | 22.2 | 52.1 |
| Nondoctoral | 42.5 | 46.4 | 43.7 | 42.4 | 27.8 | 38.9 | 75.0 | 66.7 | 47.1 |
| Overall | 44.6 | 50.6 | 45.1 | 45.8 | 41.5 | 51.1 | 54.8 | 47.4 | 50.9 |
| Full-time faculty who are Hispanic |  |  |  |  |  |  |  |  |  |
| 2-year | 9.6 | 12.2 | 15.4 | 10.7 | 14.3 | 12.5 | 7.7 | 9.6 | 12.2 |
| Doctoral | 5.1 | 4.6 | 4.6 | 7.6 | 5.8 | 6.9 | 0.0 | 5.1 | 4.6 |
| Nondoctoral | 4.1 | 4.8 | 7.0 | 6.3 | 3.7 | 0.0 | 0.0 | 4.1 | 4.8 |
| Overall | 5.5 | 6.2 | 7.2 | 7.8 | 7.2 | 6.5 | 2.4 | 5.5 | 6.2 |
| Part-time faculty who are Hispanic |  |  |  |  |  |  |  |  |  |
| 2-year | 10.8 | 12.4 | 12.8 | 11.2 | 5.2 | 9.3 | 10.0 | 10.8 | 12.4 |
| Doctoral | 6.0 | 7.6 | 8.3 | 8.8 | 8.2 | 3.8 | 5.6 | 6.0 | 7.6 |
| Nondoctoral | 4.8 | 5.4 | 1.7 | 3.9 | 7.7 | 2.7 | 6.7 | 4.8 | 5.4 |
| Overall | 7.5 | 9.1 | 8.7 | 8.9 | 6.6 | 6.6 | 8.2 | 7.5 | 9.1 |
| Full-time faculty who are Asian |  |  |  |  |  |  |  |  |  |
| 2-year | 5.7 | 4.9 | 6.5 | 3.6 | 10.7 | 6.3 | 7.7 | 25.0 | 4.2 |
| Doctoral | 8.0 | 7.5 | 8.5 | 9.6 | 9.0 | 10.3 | 14.3 | 0.0 | 11.2 |
| Nondoctoral | 5.6 | 4.3 | 4.7 | 6.3 | 7.4 | 0.0 | 12.5 | 0.0 | 5.0 |
| Overall | 7.0 | 6.3 | 7.3 | 7.8 | 9.1 | 7.6 | 11.9 | 5.3 | 8.2 |
| Part-time faculty who are Asian |  |  |  |  |  |  |  |  |  |
| 2-year | 3.4 | 5.2 | 5.9 | 5.6 | 7.7 | 3.7 | 2.5 | 12.5 | 3.9 |
| Doctoral | 5.1 | 5.4 | 3.9 | 7.3 | 6.2 | 0.0 | 0.0 | 0.0 | 7.4 |
| Nondoctoral | 3.6 | 2.3 | 5.7 | 3.9 | 6.2 | 2.7 | 0.0 | 0.0 | 5.1 |
| Overall | 4.1 | 4.5 | 5.2 | 5.8 | 6.9 | 2.5 | 1.4 | 7.1 | 5.3 |
| Full-time faculty who are Black |  |  |  |  |  |  |  |  |  |
| 2-year | 12.9 | 19.0 | 23.7 | 18.8 | 19.6 | 25.0 | 7.7 | 25.0 | 17.5 |
| Doctoral | 3.7 | 6.0 | 7.8 | 6.1 | 6.5 | 3.4 | 4.8 | 0.0 | 8.4 |
| Nondoctoral | 4.3 | 9.4 | 11.3 | 8.2 | 5.6 | 16.7 | 25.0 | 0.0 | 6.7 |
| Overall | 5.3 | 9.4 | 11.5 | 8.7 | 9.1 | 9.8 | 9.5 | 5.3 | 9.6 |
| Part-time faculty who are Black |  |  |  |  |  |  |  |  |  |
| 2-year | 15.9 | 22.2 | 16.8 | 18.6 | 22.6 | 25.9 | 27.5 | 31.3 | 24.6 |
| Doctoral | 3.4 | 7.6 | 5.2 | 7.3 | 4.1 | 3.8 | 16.7 | 12.5 | 10.0 |
| Nondoctoral | 6.3 | 10.6 | 8.6 | 3.9 | 10.8 | 18.9 | 13.3 | 0.0 | 8.5 |
| Overall | 9.0 | 14.7 | 11.2 | 11.9 | 14.5 | 18.8 | 21.9 | 21.4 | 15.9 |
| Full-time faculty holding a position outside of a postsecondary institution |  |  |  |  |  |  |  |  |  |
| 2-year | 18.6 | 15.7 | 18.9 | 27.7 | 14.3 | 6.3 | 7.7 | 0.0 | 25.9 |
| Doctoral | 7.5 | 8.2 | 9.3 | 7.1 | 9.7 | 15.5 | 4.8 | 11.1 | 9.6 |
| Nondoctoral | 12.2 | 13.9 | 15.5 | 13.9 | 9.3 | 33.3 | 25.0 | 0.0 | 14.6 |
| Overall | 10.4 | 11.1 | 12.5 | 12.1 | 10.6 | 17.4 | 9.5 | 5.3 | 13.9 |
| Faculty responding via CATI |  |  |  |  |  |  |  |  |  |
| 2-year | 4.6 | 60.1 | 56.0 | 42.2 | 24.2 | 28.2 | 38.5 | 47.1 | 28.9 |
| Doctoral | 6.1 | 65.0 | 56.6 | 44.1 | 44.5 | 50.9 | 47.8 | 60.0 | 38.0 |
| Nondoctoral | 6.2 | 63.4 | 56.4 | 43.8 | 38.3 | 40.5 | 48.7 | 66.0 | 34.3 |
| Overall | 10.1 | 67.4 | 56.7 | 46.1 | 51.7 | 46.8 | 56.6 | 85.0 | 39.2 |

[^52]Table l-11. Cumulative faculty response rates by faculty and institution characteristics, by date: 2004-Continued

| Faculty/institution type | Response time in days |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | <=28 | <=60 | <=90 | <=120 | <=150 | <=180 | <=210 | <=240 | SEP14+ |
| Faculty responding via web |  |  |  |  |  |  |  |  |  |
| 2-year | 89.9 | 32.6 | 43.3 | 53.9 | 48.3 | 53.2 | 43.4 | 15.0 | 60.8 |
| Doctoral | 95.4 | 39.9 | 44.0 | 57.8 | 75.8 | 71.8 | 61.5 | 52.9 | 71.1 |
| Nondoctoral | 93.9 | 35.0 | 43.4 | 55.9 | 55.5 | 49.1 | 52.2 | 40.0 | 62.0 |
| Overall | 93.8 | 36.6 | 43.6 | 56.2 | 61.7 | 59.5 | 51.3 | 34.0 | 65.7 |
| Male faculty |  |  |  |  |  |  |  |  |  |
| 2-year | 50.8 | 50.4 | 50.0 | 47.6 | 48.3 | 49.2 | 47.2 | 60.0 | 41.9 |
| Doctoral | 59.3 | 63.5 | 57.9 | 56.7 | 60.7 | 57.3 | 35.9 | 52.9 | 59.1 |
| Nondoctoral | 54.4 | 55.8 | 51.2 | 53.1 | 53.8 | 52.7 | 43.5 | 40.0 | 55.5 |
| Overall | 56.3 | 57.9 | 53.9 | 53.1 | 54.8 | 52.9 | 42.6 | 53.2 | 53.1 |
| Female faculty |  |  |  |  |  |  |  |  |  |
| 2-year | 49.2 | 49.6 | 50.0 | 52.4 | 51.7 | 50.8 | 52.8 | 40.0 | 58.1 |
| Doctoral | 40.7 | 36.5 | 42.1 | 43.3 | 39.3 | 42.7 | 64.1 | 47.1 | 40.9 |
| Nondoctoral | 45.6 | 44.2 | 48.8 | 46.9 | 46.2 | 47.3 | 56.5 | 60.0 | 44.5 |
| Overall | 43.7 | 42.1 | 46.1 | 46.9 | 45.2 | 47.1 | 57.4 | 46.8 | 46.9 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table l-12. Mean age and income of faculty response, based on faculty and institution type, by date: 2004

| Faculty/institution type | Response time in days |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $<=28$ | <=60 | $<=90$ | <=120 | <=150 | <=180 | <=210 | $<=240$ | SEP14+ |
| Mean age of full-time faculty |  |  |  |  |  |  |  |  |  |
| 2-year | 49 | 51 | 50 | 49 | 49 | 53 | 53 | 51 | 49 |
| Doctoral | 49 | 51 | 50 | 50 | 49 | 48 | 49 | 48 | 51 |
| Nondoctoral | 49 | 51 | 50 | 49 | 49 | 53 | 54 | 51 | 51 |
| Overall | 49 | 51 | 50 | 50 | 49 | 50 | 51 | 50 | 51 |
| Mean age of part-time faculty |  |  |  |  |  |  |  |  |  |
| 2-year | 48 | 49 | 48 | 49 | 48 | 48 | 46 | 48 | 48 |
| Doctoral | 49 | 51 | 48 | 49 | 48 | 48 | 51 | 43 | 51 |
| Nondoctoral | 49 | 50 | 50 | 50 | 48 | 51 | 48 | 59 | 49 |
| Overall | 49 | 50 | 49 | 49 | 48 | 49 | 48 | 48 | 49 |
| Mean income of full-time faculty |  |  |  |  |  |  |  |  |  |
| 2-year | \$50,755 | \$52,894 | \$53,010 | \$50,781 | \$50,922 | \$52,252 | \$59,068 | \$58,000 | \$54,615 |
| Doctoral | 73,917 | 76,051 | 76,958 | 79,292 | 84,715 | 81,778 | 77,522 | 106,238 | 68,487 |
| Nondoctoral | 51,697 | 53,476 | 53,365 | 51,533 | 55,477 | 56,922 | 57,645 | 68,975 | 62,256 |
| Overall | 64,825 | 66,070 | 67,107 | 68,097 | 71,616 | 71,780 | 68,024 | 84,315 | 64,253 |
| Mean income of part-time faculty |  |  |  |  |  |  |  |  |  |
| 2-year | 9,047 | 8,539 | 9,005 | 10,171 | 8,107 | 8,786 | 10,139 | 15,681 | 10,610 |
| Doctoral | 15,800 | 13,325 | 15,330 | 15,484 | 12,566 | 7,656 | 8,196 | 11,175 | 13,440 |
| Nondoctoral | 9,493 | 8,448 | 9,852 | 11,472 | 7,352 | 9,828 | 15,847 | 9,375 | 12,679 |
| Overall | 11,598 | 9,961 | 11,215 | 12,138 | 9,316 | 8,683 | 10,833 | 13,493 | 12,032 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Figure I-1. Cumulative percentage of faculty responding via CATI, by selected types of institutions and response time


NOTE: The overall percentage is not included in this figure because it is indistinguishable from the nondoctoral percentage. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Figure I-2. Cumulative percentage of faculty responding via Web, by selected types of institutions and response time: 2004


NOTE: The overall percentage is not included in this figure because it is indistinguishable from the nondoctoral percentage. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

## Appendix J <br> CIP Code Mapping

Table J-1. CIP code mapping

| Label ${ }^{1}$ | Codes |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1988 | 1993 | 1999 | 2004 |  | CIP |
|  |  |  |  | General code | Specific code |  |
| Agriculture, natural resources and related sciences |  |  |  | 1 |  |  |
| Agriculture and related sciences | 001,002 | 101,102 | 101,102 |  | 101 | 01 |
| Natural resources and conservation | 004,003 | 110,103 | 110,103 |  | 102 | 03 |
| Architecture and related services |  |  |  | 2 |  | 04 |
| Architecture and related services | 005-009 | 121-130 | 121-130 |  | 201 | 04 |
| Area, ethnic, cultural, and gender studies |  |  |  | 3 |  | 05 |
| Area, ethnic, cultural, and gender studies | 113 | 544 | 544 |  | 301 | 05 |
| Arts - visual and performing |  |  |  | 4 |  | 50.0 |
| Art history, criticism, and conservation | 010 | 141 | 141 |  | 401 | 50.0703 |
| Commercial and advertising art |  |  |  |  | 408 | 50.0402 |
| Dance | 012 | 143 | 143 |  | 409 | 50.03 |
| Design and applied arts | 013 | 144 | 144 |  | 402 | 50.04 |
| Drama/theatre arts and stagecraft | 014 | 145 | 145 |  | 403 | 50.05 |
| Film/video and photographic arts | 015 | 146 | 146 |  | 410 | 50.06 |
| Fine and studio art | 016 | 147 | 147 |  | 404 | 50.0702 |
| Music, general | 017 | 148 | 148 |  | 405 | 50.0901 |
| Music history, literature, and theory | 018 | 149 | 149 |  | 406 | 50.0902 |
| Visual and performing arts, other | 011,019 | 142,150 | 142,150 |  | 407 | 50.99 |
| Biological and biomedical sciences |  |  |  | 5 |  | 26 |
| Biochemistry, biophysics and molecular biology | 094 | 391 | 391 |  | 501 | 26.02 |
| Botany/plant biology |  | 393 | 393 |  | 502 | 26.03 |
| Genetics |  | 394 | 394 |  | 503 | 26.08 |
| Microbiological sciences and immunology | 098 | 395,396 | 395,396 |  | 504 | 26.05 |
| Physiology, pathology, and related sciences | 099 | 397 | 397 |  | 505 | 26.09 |
| Zoology/animal biology | 091,093,100 | 398 | 398 |  | 506 | 26.07 |
| Biological and biomedical sciences, other |  | 392,400 | 392,400 |  | 507 | 26.99 |
| Business, management, marketing, and related support services |  |  |  | 6 |  | 52 |
| Accounting and related services | 020 | 161 | 161 |  | 601 | 52.03 |
| Business administration, management, and operations | 022 | 163 | 163 |  | 602 | 52.02 |
| Business operations support and assistant services | 023 | 164 | 164 |  | 603 | 52.04 |
| Finance and financial management services | 021 | 162 | 162 |  | 604 | 52.08 |
| Human resources management and services | 024,025 | 165,166 | 165,166 |  | 605 | $52.10$ |
| Management information systems and services |  |  |  |  | 608 | $52.12$ |
| Marketing | 026 | 167 | 167 |  | 606 | $52.14$ |
| Business, management, marketing, and related support services, other | 027 | 170 | 170 |  | 607 | 52.99 |
| Communication, journalism, communication technologies, and related programs |  |  |  | 7 |  |  |
| Communication, journalism, and related programs | 028-030,032 | $\begin{array}{r} 181- \\ 183,190 \end{array}$ | $\begin{array}{r} 181- \\ 183,190 \end{array}$ |  | 701 | 09 |
| Communication technologies/technicians and support services | 031 | 184 | 184 |  | 702 | 10 |

[^53]Table J-1. CIP code mapping-Continued

| Label ${ }^{1}$ | Codes |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1988 | 1993 | 1999 | 2004 |  | CIP |
|  |  |  |  | General code | Specific code |  |
| Computer and information sciences and support services |  |  |  | 8 |  | 11 |
| Computer/information technology administration and management | 033 | 201 | 201 |  | 801 | 11.10 |
| Computer programming | 034 | 202 | 202 |  | 802 | 11.02 |
| Computer science |  |  |  |  | 803 | 11.07 |
| Computer software and media applications |  |  |  |  | 804 | 11.08 |
| Computer systems analysis | 036 | 204 | 204 |  | 805 | 11.05 |
| Computer systems networking and telecommunications |  |  |  |  | 806 | 11.09 |
| Data entry/microcomputer applications |  |  |  |  | 807 | 11.06 |
| Data processing | 035 | 203 | 203 |  | 808 | 11.03 |
| Information science/studies |  |  |  |  | 809 | 11.04 |
| Computer and information sciences and support services, other | 037 | 210 | 210 |  | 810 | 11.99 |
| Construction trades |  |  |  | 9 |  | 46 |
| Construction trades | 122-125 | 601-610 | 601-610 |  | 901 | 46 |
| Education |  |  |  | 10 |  | 13 |
| Bilingual, multilingual, and multicultural education | 040 | 223 | 223 |  | 1013 | 13.02 |
| Curriculum and instruction | 041 | 224 | 224 |  | 1001 | 13.03 |
| Educational administration and supervision | 042 | 225 | 225 |  | 1002 | 13.04 |
| Educational assessment, evaluation, and research | 043 | 226 | 226 |  | 1014 | 13.06 |
| Educational/instructional media design |  |  |  |  | 1003 | 13.05 |
| Higher education/higher education administration |  |  | 228 |  | 1015 | 13.0406 |
| Special education and teaching | 045 | 228 | 229 |  | 1004 | 13.10 |
| Student counseling and personnel services | 046 | 229 | 230 |  | 1005 | 13.11 |
| Education, other | 038,039 | 221,222 | 221,222 |  | 1006 | 13.99 |
|  | 044,047 | 227,230 | 227,231 |  | 1007 | 13.1210 |
| Teacher education: Early childhood education and teaching | 048 | 241 | 241 |  | 1008 | 13.1202 |
| Teacher education: Elementary education and teaching | 049 | 242 | 242 |  | 1009 | 13.1205 |
| Teacher education: Secondary education and teaching | 050 | 243 | 243 |  | 1010 | 13.1201 |
| Teacher education: Adult and continuing education and teaching | 051 | 244 | 244 |  | 1011 | $13.1299$ |
| Teacher education: Specific levels, other | 052 | 245 | 245 |  | 1012 | $13.13$ |
| Teacher education: Specific subject areas | 053 | 250 | 250 |  | 1012 | 13.13 |
| Engineering, engineering technologies/technicians |  |  |  | 11 |  |  |
| Biomedical/medical engineering |  |  |  |  | 1101 | 14.05 |
| Chemical engineering |  | 265 | 265 |  | 1102 | 14.07 |
| Civil engineering | 055 | 262 | 262 |  | 1103 | 14.08 |
| Computer engineering |  |  |  |  | 1104 | 14.09 |
| Electrical, electronics, and communications engineering | 056 | 263 | 263 |  | 1105 | 14.10 |
| Engineering technologies/technicians | 059 | 280 | 280 |  | 1106 | 15 |
| Environmental/environmental health engineering |  |  |  |  | 1107 | 14.14 |
| Mechanical engineering | 507 | 264 | 264 |  | 1108 | 14.19 |
| Engineering, other | 054,058 | 261,270 | 261,270 |  | 1109 | 14.99 |
| English language and literature/letters |  |  |  | 12 |  | 23 |
| English language and literature/letters | 060-067 | 291-300 | 291-300 |  | 1201 | 23 |
| Family and consumer sciences/human sciences |  |  |  | 13 |  | 19 |
| Family and consumer sciences/human sciences | 087 | 350 | 350 |  | 1301 | 19 |

See notes at end of table.

Table J-1. CIP code mapping-Continued

| Label $^{1}$ | Codes |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1988 | 1993 | 1999 | 2004 |  | CIP |
|  |  |  |  | General code | Specific code |  |
| Foreign languages, literatures, and linguistics |  |  |  | 14 |  | 16 |
| Foreign languages, literatures, and linguistics | 068-077 | 311-320 | 311-320 |  | 1401 | 16 |
| Health professions and related clinical sciences |  |  |  | 15 |  | 51 |
| Alternative and complementary medicine and medical systems |  |  |  |  | 1501 | 51.33 |
| Chiropractic |  |  |  |  | 1502 | 51.01 |
| Clinical/medical laboratory science and allied professions |  |  |  |  | 1503 | 51.10 |
| Dental support services and allied professions |  |  |  |  | 1504 | 51.06 |
| Dentistry | 079 | 332 | 332 |  | 1505 | 51.04 |
| Health and medical administrative services | 080 | 333 | 333 |  | 1506 | 51.07 |
| Allied health and medical assisting services | 078 | 331 | 331 |  | 1507 | 51.08 |
| Allied health diagnostic, intervention and treatment professions |  |  |  |  | 1508 | 51.09 |
| Medicine, including psychiatry | 081 | 334 | 334 |  | 1509 | 51.12 |
| Mental and social health services and allied professions |  |  |  |  | 1510 | 51.15 |
| Nursing | 082 | 335 | 335 |  | 1511 | 51.16 |
| Optometry |  |  |  |  | 1512 | 51.17 |
| Osteopathic medicine/osteopathy |  |  |  |  | 1513 | 51.19 |
| Pharmacy, pharmaceutical sciences, and administration | 083 | 336 | 336 |  | 1514 | 51.20 |
| Podiatric medicine/podiatry |  |  |  |  | 1515 | 51.21 |
| Public health | 084 | 337 | 337 |  | 1516 | 51.22 |
| Rehabilitation and therapeutic professions | 084 | 337 | 337 |  | 1517 | 51.23 |
| Veterinary medicine | 085 | 338 | 338 |  | 1518 | 51.24 |
| Health professions and related clinical services, other | 086 | 340 | 340 |  | 1519 | 51.99 |
| Legal professions and studies |  |  |  | 16 |  | 22 |
| Law | 089 | 370 | 370 |  | 1601 | 22.01 |
| Legal support services |  |  |  |  | 1602 | 22.03 |
| Legal professions and studies, other |  |  |  |  | 1603 | 22.99 |
| Library science |  |  |  | 17 |  | 25 |
| Library science | 090 | 380 | 380 |  | 1701 | 25 |
| Mathematics and statistics | 101 |  | 390 | 18 |  | 27 |
| Mathematics |  | 430 |  |  | 1801 | 27.01 |
| Statistics |  | 440 |  |  | 1802 | 27.05 |
| Mechanical and repair technologies/technicians |  |  |  | 19 |  | 47 |
| Mechanical and repair technologies/technicians | 128-131 | 641-644 | 641-644 |  | 1901 | 47 |
| Multi/interdisciplinary studies |  |  |  | 20 |  | 30 |
| Multi/interdisciplinary studies | 103 | 460 |  |  | 2001 | 30 |
| Parks, recreation, leisure, and fitness studies | 104 | 470 |  | 21 |  | 31 |
| Parks, recreation and leisure studies |  |  | 430 |  | 2101 | 31.01 |
| Health and physical education/fitness |  |  | 470 |  | 2102 | 31.05 |
| Precision production |  |  |  | 22 |  | 48 |
| Precision production | 132-137 | 661-670 | 661-670 |  | 2201 | 48 |
| Personal and culinary services |  |  |  | 23 |  | 12 |
| Culinary arts and related services |  |  |  |  | 2301 | 12.05 |
| Personal services, other | 126,127 | 621,630 | 621,630 |  | 2302 | 12.99 |

Table J-1. CIP code mapping-Continued

| Label ${ }^{1}$ | Codes |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1988 | 1993 | 1999 | 2004 |  | CIP |
|  |  |  |  | General code | Specific code |  |
| Philosophy, religion, and theology | 105 |  |  | 24 |  |  |
| Philosophy |  | 480 | 440 |  | 2401 | 38.01 |
| Religion/religious studies |  | 480 | 441 |  | 2402 | 38.02 |
| Theology and religious vocations |  | 490 | 442 |  | 2403 | 39 |
| Physical sciences |  |  |  | 25 |  | 40 |
| Astronomy and astrophysics | 092 | 411 | 411 |  | 2501 | 40.02 |
| Atmospheric sciences and meteorology |  |  |  |  | 2502 | 40.04 |
| Chemistry | 095 | 412 | 412 |  | 2503 | 40.05 |
| Geological and earth sciences/geosciences | 096 | 414 | 414 |  | 2504 | 40.06 |
| Physics | 097 | 413 | 413 |  | 2505 | 40.08 |
| Physical sciences, other | 100 | 420 | 420 |  | 2506 | 40.99 |
| Psychology | 106 | 510 | 510 | 26 |  | 42 |
| Behavioral psychology |  |  |  |  | 2601 | 42.17 |
| Clinical psychology |  |  |  |  | 2602 | 42.02 |
| Education/school psychology |  |  |  |  | 2603 | 42.18 |
| Psychology, other |  |  |  |  | 2604 | 42.99 |
| Public administration and social service professions | 108 | 520 | 520 | 27 |  | 44 |
| Public administration |  |  |  |  | 2701 | 44.04 |
| Social work |  |  |  |  | 2702 | 44.07 |
| Public administration and social service professions, other |  |  |  |  | 2703 | 44.99 |
| Science technologies/technicians |  |  |  | 28 |  | 41 |
| Science technologies/technicians | 109 | 530 | 530 |  | 2801 | 41 |
| Security and Protective services | 107 | 500 | 500 | 29 |  | 43 |
| Corrections |  |  |  |  | 2901 | 43.0102 |
| Criminal justice |  |  |  |  | 2902 | 43.0104 |
| Fire protection |  |  |  |  | 2903 | 43.02 |
| Police science |  |  |  |  | 2904 | 43.0107 |
| Security and protective services, other |  |  |  |  | 2905 | 43.99 |
| Social sciences and history (except psychology) |  |  |  | 30 |  |  |
| Anthropology | 111 | 542 | 542 |  | 3001 | 45.02 |
| Archeology | 112 | 543 | 543 |  | 3002 | 45.03 |
| Criminology |  |  |  |  | 3003 | 45.04 |
| Demography and population studies | 114 | 545 | 545 |  | 3004 | 45.05 |
| Economics | 115 | 546 | 546 |  | 3005 | 45.06 |
| Geography and cartography | 116 | 547 | 547 |  | 3006 | 45.07 |
| History | 117 | 548 | 548 |  | 3007 | 54.01 |
| International relations and affairs | 118 | 549 | 549 |  | 3008 | 45.09 |
| Political science and government | 119 | 550 | 550 |  | 3009 | 45.10 |
| Sociology | 120 | 551 | 551 |  | 3010 | 45.11 |
| Urban studies/affairs |  |  |  |  | 3011 | 45.12 |
| Social sciences, other (except psychology) | 110,121 | 541,560 | 541,560 |  | 3012 | 45.99 |
| Transportation and materials moving |  |  |  | 31 |  | 49 |
| Transportation and materials moving | 138-141 | 681-690 | 681-690 |  | 3101 | 49 |
| Other |  |  |  | 32 |  |  |
| Other | 102,999 | 450,900 | 900 |  | 3201 | 99.99 |
| ${ }^{1}$ The general categories used in the 2004 coding scheme are those on the left margin. The specific disciplines within each general category are indented. <br> SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04). |  |  |  |  |  |  |

## Appendix K Analysis Variables

Institution ................................................................................................................................... K-3
Faculty
K-9

## Institution

Table K-1. Institution Variables

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| 11A | Employment_Employer | Number full-time faculty, fall 2003, reported |
| 11B | Employment_Employer | Number part-time faculty, fall 2003 |
| 12A | Employment_Employer | Full-time numbers: faculty, fall 2002 |
| I2B | Employment_Employer | Full-time numbers: changed from part to full time, 2002-03 |
| I2C | Employment_Employer | Full-time numbers: hired, 2002-03 |
| I2D | Employment_Employer | Full-time numbers: retired, 2002-03 |
| I2E | Employment_Employer | Full-time numbers: left for other reasons, 2002-03 |
| I2F | Employment_Employer | Full-time numbers: changed from full to part time, 2002-03 |
| I2G | Employment_Employer | Full-time numbers: faculty, fall 2003, calculated |
| 13 | Employment_Employer | Full-time tenure: has tenure system |
| 14 | Employment_Employer | Full-time tenure: number considered for tenure, 2002-03 |
| 15 | Employment_Employer | Full-time tenure: number granted tenure, 2002-03 |
| 16 | Employment_Employer | Full-time tenure: maximum years on tenure track |
| 17A | Employment_Employer | Full-time tenure: changed tenure policy |
| 17B | Employment_Employer | Full-time tenure: more stringent tenure standards |
| 17C | Employment_Employer | Full-time tenure: downsized tenured faculty |
| 17D | Employment_Employer | Full-time tenure: replaced tenured with fixed term |
| 17E | Employment_Employer | Full-time tenure: offered early retirement |
| I7E2 | Employment_Employer | Full-time tenure: number early retirees, last 5 years |
| 18 | Employment_Employer | Full-time tenure: discontinued tenure system, last 5 years |
| 19 | Employment_Employer | Full-time faculty: positions sought to fill, fall 2003 |
| I10AA | Employment_Benefits | Full-time benefit: medical insurance |
| I10AB | Employment_Benefits | Full-time benefit: dental insurance |
| I10AC | Employment_Benefits | Full-time benefit: disability insurance |
| I10AD | Employment_Benefits | Full-time benefit: life insurance |
| I10AE | Employment_Benefits | Full-time benefit: child care |
| I10AF | Employment_Benefits | Full-time benefit: retiree medical insurance |
| I10AG | Employment_Benefits | Full-time benefit: cafeteria-style plan |
| I10BA | Employment_Benefits | Full-time benefit: medical insurance subsidized |
| I10BB | Employment_Benefits | Full-time benefit: dental insurance subsidized |
| I10BC | Employment_Benefits | Full-time benefit: disability insurance subsidized |
| I10BD | Employment_Benefits | Full-time benefit: life insurance subsidized |
| I10BE | Employment_Benefits | Full-time benefit: child care subsidized |
| I10BF | Employment_Benefits | Full-time benefit: retiree medical insurance subsidized |
| I10BG | Employment_Benefits | Full-time benefit: cafeteria-style plan subsidized |
| I11A | Employment_Benefits | Full-time benefit: wellness program |
| I11B | Employment_Benefits | Full-time benefit: spouse tuition remission |
| I11C | Employment_Benefits | Full-time benefit: children tuition remission |
| I11D | Employment_Benefits | Full-time benefit: housing |
| I11E | Employment_Benefits | Full-time benefit: transportation/parking |
| I11F | Employment_Benefits | Full-time benefit: paid maternity leave |
| I11G | Employment_Benefits | Full-time benefit: paid paternity leave |
| 111H | Employment_Benefits | Full-time benefit: paid sabbatical leave |
| I111 | Employment_Benefits | Full-time benefit: employee assistance program |

See notes at end of table.

Table K-1. Institution Variables-Continued

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| 112 | Employment_Description | Full-time faculty: union representation |
| I13A | Employment_Employer | Full-time assessment: student evaluations |
| I13B | Employment_Employer | Full-time assessment: student test scores |
| I13C | Employment_Employer | Full-time assessment: student career placement |
| I13D | Employment_Employer | Full-time assessment: other student performance |
| I13E | Employment_Employer | Full-time assessment: department chair evaluations |
| I13F | Employment_Employer | Full-time assessment: dean evaluations |
| I13G | Employment_Employer | Full-time assessment: peer evaluations |
| I13H | Employment_Employer | Full-time assessment: self-evaluations |
| 114 | Employment_Benefits | Part-time benefit: retirement plan |
| I15AA | Employment_Benefits | Part-time benefit: medical insurance |
| I15AB | Employment_Benefits | Part-time benefit: dental insurance |
| I15AC | Employment_Benefits | Part-time benefit: disability insurance |
| I15AD | Employment_Benefits | Part-time benefit: life insurance |
| I15AE | Employment_Benefits | Part-time benefit: child care |
| I15AF | Employment_Benefits | Part-time benefit: retiree medical insurance |
| I15AG | Employment_Benefits | Part-time benefit: cafeteria-style plan |
| I15BA | Employment_Benefits | Part-time benefit: medical insurance subsidized |
| I15BB | Employment_Benefits | Part-time benefit: dental insurance subsidized |
| I15BC | Employment_Benefits | Part-time benefit: disability insurance subsidized |
| I15BD | Employment_Benefits | Part-time benefit: life insurance subsidized |
| I15BE | Employment_Benefits | Part-time benefit: child care subsidized |
| I15BF | Employment_Benefits | Part-time benefit: retiree medical insurance subsidized |
| I15BG | Employment_Benefits | Part-time benefit: cafeteria-style plan subsidized |
| I16A | Employment_Benefits | Part-time benefit: wellness program |
| I16B | Employment_Benefits | Part-time benefit: spouse tuition remission |
| I16C | Employment_Benefits | Part-time benefit: children tuition remission |
| I16D | Employment_Benefits | Part-time benefit: housing |
| I16E | Employment_Benefits | Part-time benefit: transportation/parking |
| I16F | Employment_Benefits | Part-time benefit: paid maternity leave |
| I16G | Employment_Benefits | Part-time benefit: paid paternity leave |
| I16H | Employment_Benefits | Part-time benefit: paid sabbatical leave |
| I16\| | Employment_Benefits | Part-time benefit: employee assistance program |
| 117 | Employment_Description | Part-time faculty: union representation |
| I18A | Employment_Employer | Part-time assessment: student evaluations |
| I18B | Employment_Employer | Part-time assessment: student test scores |
| I18C | Employment_Employer | Part-time assessment: student career placement |
| I18D | Employment_Employer | Part-time assessment: other student performance |
| I18E | Employment_Employer | Part-time assessment: department chair evaluations |
| I18F | Employment_Employer | Part-time assessment: dean evaluations |
| I18G | Employment_Employer | Part-time assessment: peer evaluations |
| I18H | Employment_Employer | Part-time assessment: self-evaluations |
| I19A | Employment_Employer | Undergraduate instruction: percent full-time faculty |
| I19B | Employment_Employer | Undergraduate instruction: percent part-time faculty |

See notes at end of table.

Table K-1. Institution Variables-Continued

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| I19C | Employment_Employer | Undergraduate instruction: percent teaching assistants |
| I19D | Employment_Employer | Undergraduate instruction: percent other |
| X0111 | Employment_Employer | Number total faculty, fall 2003 |
| X0112 | Employment_Employer | Full-time numbers: total left 2002-03 |
| X0212 | Employment_Employer | Full-time numbers: total new 2002-03 |
| X0117 | Employment_Employer | Full-time tenure: any action taken last 5 years |
| X01112 | Employment_Description | Any faculty represented by a union |
| X01113 | Employment_Employer | Full-time assessment: any student measure |
| X02I13 | Employment_Employer | Full-time assessment: any administrative measure |
| X03113 | Employment_Employer | Full-time assessment, student evaluations, DK with No |
| X04I13 | Employment_Employer | Full-time assessment, student test scores, DK with No |
| X05113 | Employment_Employer | Full-time assessment, student career placement, DK with No |
| X06113 | Employment_Employer | Full-time assessment, other measure of stud perf, DK with No |
| X07113 | Employment_Employer | Full-time assessment, dept/division chair eval, DK with No |
| X08113 | Employment_Employer | Full-time assessment, dean evaluations, DK with No |
| X09113 | Employment_Employer | Full-time assessment, peer evaluations, DK with No |
| X10113 | Employment_Employer | Full-time assessment, self evaluations, DK with No |
| X11113 | Employment_Employer | Full-time assessment, any student measure, DK with No |
| X12113 | Employment_Employer | Full-time assessment, any admin measure, DK with No |
| X01118 | Employment_Employer | Part-time assessment: any student measure |
| X02I18 | Employment_Employer | Part-time assessment: any administrative measure |
| X03118 | Employment_Employer | Part-time assessment, student evaluations, DK with No |
| X04I18 | Employment_Employer | Part-time assessment, student test scores, DK with No |
| X05I18 | Employment_Employer | Part-time assessment, student career placement, DK with No |
| X06118 | Employment_Employer | Part-time assessment, other measure of stud perf, DK with No |
| X07118 | Employment_Employer | Part-time assessment, dept/division chair eval, DK with No |
| X08118 | Employment_Employer | Part-time assessment, dean evaluations, DK with No |
| X09118 | Employment_Employer | Part-time assessment, peer evaluations, DK with No |
| X10118 | Employment_Employer | Part-time assessment, self evaluations, DK with No |
| X11118 | Employment_Employer | Part-time assessment, any student measure, DK with No |
| X12118 | Employment_Employer | Part-time assessment, any admin measure, DK with No |
| X01Q0 | Institution_Type | 1994 Carnegie ( 6 cat, all liberal arts) by control, selected cats |
| X02Q0 | Institution_Type | 1994 Carnegie (6 cat, private liberal arts) by control, selected cats |
| X03Q0 | Institution_Type | 1994 Carnegie (5 category) by control, selected categories |
| X04Q0 | Institution_Type | 1994 Carnegie (8 category) by control |
| X05Q0 | Institution_Type | 1994 Carnegie (10 category), separates I/II |
| X06Q0 | Institution_Type | 1994 Carnegie, 4-year versus 2-year |
| X08Q0 | Institution_Type | 1994 Carnegie, doctoral/nondoctoral/2-yr by control |
| X09Q0 | Institution_Other | Degree of urbanization |
| X10Q0 | Institution_Other | Ratio of FTE enrollment/FTE faculty |
| X11Q0 | Institution_Other | Enrollment, undergraduate |
| X12Q0 | Institution_Other | Enrollment, undergraduate, collapsed |
| X13Q0 | Institution_Other | Enrollment FTE, undergraduate |
| X14Q0 | Institution_Other | Enrollment FTE, undergraduate, collapsed |

See notes at end of table.

Table K-1. Institution Variables-Continued

| Variable name | Prefix | Label |
| :--- | :--- | :--- |
| X15Q0 | Institution_Other | Enrollment, first-professional |
| X16Q0 | Institution_Other | Enrollment, first-professional, collapsed |
| X17Q0 | Institution_Other | Enrollment FTE, first-professional |
| X18Q0 | Institution_Other | Enrollment FTE, first-professional, collapsed |
| X19Q0 | Institution_Other | Enrollment, graduate |
| X20Q0 | Institution_Other | Enrollment, graduate, collapsed |
| X21Q0 | Institution_Other | Enrollment FTE, graduate |
| X22Q0 | Institution_Other | Enrollment FTE, graduate, collapsed |
| X23Q0 | Institution_Other | Enrollment, total |
| X24Q0 | Institution_Other | Enrollment, total, collapsed |
| X25Q0 | Institution_Other | Enrollment FTE, total |
| X26Q0 | Institution_Other | Enrollment FTE, total, collapsed |
| X27Q0 | Institution_Other | Enrollment minority, American Indian/Alaska Native |
| X28Q0 | Institution_Other | Enrollment minority, Asian/Pacific Islander |
| X29Q0 | Institution_Other | Enrollment minority, Black non-Hispanic |
| X30Q0 | Institution_Other | Enrollment minority, Hispanic |
| X31Q0 | Institution_Other | Core expenses, instruction (in 1000's) |
| X32Q0 | Institution_Other | Core expenses, instruction, collapsed |
| X33Q0 | Institution_Other | Core expenses, research (in 1000's) |
| X34Q0 | Institution_Other | Core expenses, research, collapsed |
| X35Q0 | Institution_Other | Core expenses, total (in 1000's) |
| X36Q0 | Institution_Other | Core expenses, total, collapsed |
| X37Q0 | Institution_Other | Region where institution located |
| X1120Q0 | Institution_Type | Institution_Type |

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table K-2. Faculty Variables

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| Q1 | Employment_Description | Instructional duties, any |
| Q2 | Employment_Description | Instructional duties related to credit courses/activities |
| Q3 | Employment_Description | Faculty status |
| Q4 | Employment_Description | Principal activity |
| Q5 | Employment_Description | Employed full or part time at this institution |
| Q6 | Employment_Description | Part-time employment is primary employment |
| Q8 | Employment_Description | Part-time but preferred full-time position |
| Q9 | Employment_Description | Year began current job |
| Q10 | Employment_Description | Rank |
| Q11 | Employment_Description | Rank, year attained professor or associate professor |
| Q12 | Employment_Description | Tenure status |
| Q13 | Employment_Description | Tenure, year attained at any postsecondary institution |
| Q14 | Employment_Description | Union status |
| Q15 | Employment_Description | Union status, reason not a member |
| Q16CD2 | Employment_Description | Principal field of teaching-general code |
| Q16CD4 | Employment_Description | Principal field of teaching-specific code |
| Q17A1 | Education_Attainment | Highest degree |
| Q17A2 | Education_Attainment | Highest degree, date awarded |
| Q17A3C2 | Education_Attainment | Highest degree field-general code |
| Q17A3C4 | Education_Attainment | Highest degree field-specific code |
| Q17A4ST | Education_Attainment | Highest degree institution-state |
| Q17A4I | Education_Attainment | Highest degree institution-IPEDS |
| Q17A4LEV | Education_Attainment | Highest degree institution, level |
| Q17A4CN | Education_Attainment | Highest degree institution, control |
| Q17A4CRN | Education_Attainment | Highest degree institution, 2000 Carnegie (4 cat) by control, selected |
| Q17A4CC | Education_Attainment | Highest degree institution, 2000 Carnegie code, 17 category |
| Q17D1 | Education_Attainment | Bachelor's degree date awarded |
| Q18 | Employment_Description | Other current jobs, number of jobs |
| Q19A1 | Employment_Description | Other current jobs, full-time employment |
| Q19B1 | Employment_Description | Other current jobs, number in postsecondary instruction |
| Q21 | Employment_History | First postsecondary job, current job is first |
| Q23 | Employment_History | First postsecondary job, year began |
| Q24 | Employment_History | First postsecondary job, part or full time |
| Q26 | Employment_History | First postsecondary job, tenure status |
| Q27 | Employment_History | Other jobs, any outside postsecondary since degree |
| Q28 | Employment_History | Other jobs, sector of previous job |
| Q31A | Employment_Time Allocation | Hours per week on paid tasks at institution |
| Q31B | Employment_Time Allocation | Hours per week on unpaid tasks at institution |
| Q31C | Employment_Time Allocation | Hours per week on paid tasks outside of institution |
| Q31D | Employment_Time Allocation | Hours per week on unpaid tasks outside of institution |
| Q32A | Employment_Time Allocation | Percent time spent on instruction, undergraduate |
| Q32B | Employment_Time Allocation | Percent time spent on instruction, graduate/first-professional |

See notes at end of table.

Table K-2. Faculty Variables-Continued

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| Q32C | Employment_Time Allocation | Percent time spent on research activities |
| Q32D | Employment_Time Allocation | Percent time spent on other unspecified activities |
| Q35A1 | Instruction_Classroom_Classes | Number of classes taught, credit |
| Q35A2 | Instruction_Classroom_Classes | Number of classes taught, noncredit |
| Q35B | Instruction_Classroom_Classes | Number of classes taught, remedial |
| Q35C | Instruction_Classroom_Classes | Number of classes taught, distance education |
| Q36 | Instruction_Classroom_Assistants | Teaching assistant in any credit class |
| Q37A1 | Instruction_Classroom_Weeks | Number of weeks taught, $1^{\text {st }}$ credit class |
| Q37B1 | Instruction_Classroom_Hours | Number of credit hours, $1^{\text {st }}$ class |
| Q37C1 | Instruction_Classroom_Hours | Number of hours taught per week, $1^{\text {st }}$ class |
| Q37D1 | Instruction_Classroom_Students | Number of students, $1^{\text {st }}$ class |
| Q37E1 | Instruction_Level | Primary level of students, $1^{\text {st }}$ class |
| Q37F1 | Instruction_Classroom_Assistants | Teaching assistant, $1^{\text {st }}$ class |
| Q37A2 | Instruction_Classroom_Weeks | Number of weeks taught, $2^{\text {nd }}$ credit class |
| Q37B2 | Instruction_Classroom_Hours | Number of credit hours, $2^{\text {nd }}$ class |
| Q37C2 | Instruction_Classroom_Hours | Number of hours taught per week, $2^{\text {nd }}$ class |
| Q37D2 | Instruction_Classroom_Students | Number of students, $2^{\text {nd }}$ class |
| Q37E2 | Instruction_Level | Primary level of students, $2^{\text {nd }}$ class |
| Q37F2 | Instruction_Classroom_Assistants | Teaching assistant, $2^{\text {nd }}$ class |
| Q37A3 | Instruction_Classroom_Weeks | Number of weeks taught, $3^{\text {rd }}$ credit class |
| Q37B3 | Instruction_Classroom_Hours | Number of credit hours, $3^{\text {rd }}$ class |
| Q37C3 | Instruction_Classroom_Hours | Number of hours taught per week, $3^{\text {rd }}$ class |
| Q37D3 | Instruction_Classroom_Students | Number of students, $3^{\text {rd }}$ class |
| Q37E3 | Instruction_Level | Primary level of students, $3^{\text {rd }}$ class |
| Q37F3 | Instruction_Classroom_Assistants | Teaching assistant, $3^{\text {rd }}$ class |
| Q37A4 | Instruction_Classroom_Weeks | Number of weeks taught, $4^{\text {th }}$ credit class |
| Q37B4 | Instruction_Classroom_Hours | Number of credit hours, $4^{\text {th }}$ class |
| Q37C4 | Instruction_Classroom_Hours | Number of hours taught per week, $4^{\text {th }}$ class |
| Q37D4 | Instruction_Classroom_Students | Number of students, $4^{\text {th }}$ class |
| Q37E4 | Instruction_Level | Primary level of students, $4^{\text {th }}$ class |
| Q37F4 | Instruction_Classroom_Assistants | Teaching assistant, $4^{\text {th }}$ class |
| Q37A5 | Instruction_Classroom_Weeks | Number of weeks taught, $5^{\text {th }}$ credit class |
| Q37B5 | Instruction_Classroom_Hours | Number of credit hours, $5^{\text {th }}$ class |
| Q37C5 | Instruction_Classroom_Hours | Number of hours taught per week, $5{ }^{\text {th }}$ class |
| Q37D5 | Instruction_Classroom_Students | Number of students, $5^{\text {th }}$ class |
| Q37E5 | Instruction_Level | Primary level of students, $5^{\text {th }}$ class |
| Q37F5 | Instruction_Classroom_Assistants | Teaching assistant, $5^{\text {th }}$ class |
| Q38A | Instruction_Methods | Undergrad class, multiple choice midterm/final exams |
| Q38B | Instruction_Methods | Undergrad class, essay midterm/final exams |
| Q38C | Instruction_Methods | Undergrad class, short answer midterm/final exams |
| Q38D | Instruction_Methods | Undergrad class, term/research papers |
| Q38E | Instruction_Methods | Undergrad class, multiple drafts of written work |
| Q38F | Instruction_Methods | Undergrad class, oral presentations |
| Q38G | Instruction_Methods | Undergrad class, group projects |

See notes at end of table.

Table K-2. Faculty Variables—Continued

| Variable name | Prefix | Label |
| :--- | :--- | :--- |
| Q38H | Instruction_Methods | Undergrad class, student evaluations of each others' work |
| Q38I | Instruction_Methods | Undergrad class, laboratory/shop/studio assignments |
| Q38J | Instruction_Methods | Undergrad class, service learn/co-op interactions with |
|  |  | business |
| Q39 | Technology_Use | Website for any instructional duties |
| Q41 | Technology_Use | Hours per week, e-mailing students |
| Q46 | Instruction_Individual | Individual instruction, any |
| Q47A1 | Instruction_Individual | Individual instruction, number undergraduate students |
| Q47A2 | Instruction_Individual | Individual instruction, number graduate students |
| Q47A3 | Instruction_Individual | Individual instruction, number first-professional students |
| Q47B1 | Instruction_Individual | Individual instruction, hours with undergraduates |
| Q47B2 | Instruction_Individual | Individual instruction, hours with graduate students |
| Q47B3 | Instruction_Individual | Individual instruction, hours with first-professional students |
| Q48 | Instruction_Individual | Hours per week, thesis/dissertation committees |
| Q49 | Employment_Time Allocation | Hours per week, administrative committees |
| Q50 | Employment_Time Allocation | Hours per week, with advisees |
| Q51 | Employment_Time Allocation | Hours per week, office hours |
| Q52AA | Scholarship_Publications | Career articles, refereed journals |
| Q52AB | Scholarship_Publications | Career articles, nonrefereed journals |
| Q52AC | Scholarship_Publications | Career book reviews, chapters, creative works |
| Q52AD | Scholarship_Publications | Career books, textbooks, reports |
| Q52AE | Scholarship_Publications | Career presentations |
| Q52AF | Scholarship_Publications | Cmployment_Satisfaction |

See notes at end of table.

Table K-2. Faculty Variables-Continued

| Variable name | Prefix | Label |
| :--- | :--- | :--- |
| Q64 | Employment_Description | Retired from another position |
| Q65 | Employment_Future | Retire from all paid employment, planned age |
| Q66A | Finances_Income | Amount of income from basic salary from institution |
| Q66B | Finances_Income | Amount of income from other income from institution |
| Q66C | Finances_Income | Amount of income from other academic institution |
| Q66D | Finances_Income | Amount of income from consulting or freelance work |
| Q66E | Finances_Income | Amount of income from other employment |
| Q66F | Finances_Income | Amount of income from other unspecified sources |
| Q66SUM | Finances_Income | Amount of total individual income |
| Q66B2 | Finances_Income | Amount of total individual income (range) |
| Q67 | Finances_Income | Type of contract, length of unit |
| Q68 | Finances_Income | Income paid per course/credit unit or term |
| Q69 | Finances_Income | Amount of income paid per course/credit unit or term |
| Q70A | Finances_Family | Amount of total household income |
| Q70B | Finances_Family | Amount of total household income (range) |
| Q71 | Background_Demographics | Gender |
| Q72 | Employment_Description | Ager, year of birth |
| Q73 | Employment status, gender |  |
| Q74A | Emplound_Demographics | Empround_Demographics |

See notes at end of table.

Table K-2. Faculty Variables-Continued

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| X04Q5 | Employment_History | Employment status at first PSE job and current job |
| X05Q5 | Employment_Description | Employment status at this institution and other jobs in Fall 2003 |
| X06Q5 | Employment_Description | Part-time faculty this institution with other PSE jobs in Fall 2003 |
| X01Q9 | Employment_Description | Years held current job |
| X02Q9 | Employment_Description | Age when began current job |
| X03Q9 | Employment_Description | Years held current job, collapsed |
| X04Q9 | Employment_Description | Age when began current job, collapsed |
| X01Q10 | Background_Demographics | Rank, gender |
| X02Q10 | Employment_Description | Rank, employment status |
| X03Q10 | Employment_Description | Rank, years since rank achieved |
| X04Q10 | Employment_Description | Rank, age achieved rank of full professor |
| X05Q10 | Employment_Description | Rank, years since full professor achieved |
| X06Q10 | Employment_Description | Rank, years since rank achieved, collapsed |
| X07Q10 | Employment_Description | Rank, age achieved rank of full professor, collapsed |
| X08Q10 | Employment_Description | Rank, years since full professor achieved, collapsed |
| X09Q10 | Employment_Description | Rank, age achieved rank of associate professor |
| X10Q10 | Employment_Description | Rank, age achieved rank of associate professor, collapsed |
| X11Q10 | Employment_Description | Rank, years since associate professor achieved |
| X12Q10 | Employment_Description | Rank, years since associate professor achieved, collapsed |
| X01Q12 | Employment_Description | Tenure status, collapsed further |
| X02Q12 | Background_Demographics | Tenure status, gender |
| X03Q12 | Employment_Description | Tenure status, years since tenure achieved |
| X04Q12 | Employment_Description | Tenure status, age achieved tenure |
| X05Q12 | Employment_Description | Tenure status, years since tenure achieved, collapsed |
| X06Q12 | Employment_Description | Tenure status, age achieved tenure, collapsed |
| X01Q14 | Employment_Description | Union status, combined |
| X01Q15 | Employment_Description | Union status, reason not a member, with don't know |
| X01Q16 | Employment_Description | Principal field of teaching, NSOPF:88 expanded (26 category) |
| X02Q16 | Employment_Description | Principal field of teaching, NSOPF:88 (10 category) |
| X03Q16 | Employment_Description | Principal field of teaching, vocational included (7 category) |
| X04Q16 | Employment_Description | Principal field of teaching, recoded (11 category) |
| X05Q16 | Employment_Description | Teaching or research field, NSOPF:88 expanded (26 category) |
| X06Q16 | Employment_Description | Teaching or research field, NSOPF:88 (10 category) |
| X07Q16 | Employment_Description | Teaching or research field, vocational included (7 category) |
| X08Q16 | Employment_Description | Teaching or research field, recoded (11 category) |
| X09Q16 | Employment_Description | Principal field of teaching-specific code (contiguous values) |
| X10Q16 | Employment_Description | Teaching or research field-general code |
| X11Q16 | Employment_Description | Teaching or research field-specific code |
| X01Q17 | Education_Attainment | Highest degree collapsed further |
| X02Q17 | Education_Attainment | Highest degree collapsed |
| X03Q17 | Education_Attainment | Highest degree either doctorate or first-professional |

See notes at end of table.

Table K-2. Faculty Variables-Continued

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| X04Q17 | Education_Attainment | Highest degree field, NSOPF:88 expanded (26 category) |
| X05Q17 | Education_Attainment | Highest degree field, NSOPF:88 (10 category) |
| X06Q17 | Education_Attainment | Highest degree, years between bachelors and doctorate |
| X07Q17 | Education_Attainment | Highest degree, age received |
| X08Q17 | Education_Attainment | Highest degree, age received, collapsed |
| X09Q17 | Education_Attainment | Highest degree, years since receiving |
| X10Q17 | Education_Attainment | Highest degree, years since receiving collapsed |
| X11Q17 | Education_Attainment | Highest degree field, vocational included (7 category) |
| X12Q17 | Education_Attainment | Highest degree field, recoded (11 category) |
| X13Q17 | Education_Attainment | Highest degree, years between bachelors and doctorate, collapsed |
| X14Q17 | Education_Attainment | Highest degree institution, 2000 Carnegie (10 cat) by control |
| X15Q17 | Education_Attainment | Highest degree institution, 2000 Carnegie (5 cat) by control, selected |
| X16Q17 | Education_Attainment | Highest degree institution, 2000 Carnegie (7 cat) |
| X17Q17 | Education_Attainment | Highest degree institution, 2000 Carnegie (5 cat) |
| X18Q17 | Education_Attainment | Highest degree field-specific code (contiguous values) |
| X19Q17 | Education_Attainment | Highest degree, 1994 Carnegie I/II |
| X20Q17 | Education_Attainment | Highest degree, 1994 Carnegie matches NSOPF88 |
| X21Q17 | Education_Attainment | Highest degree, 1994 Carnegie matches NSOPF93 |
| X01Q18 | Employment_Description | Other employment in Fall 2003 |
| X02Q18 | Employment_Description | Number of non-PSE-instructional jobs held in Fall 2003 |
| X01Q21 | Employment_Description | Current PSE job is the first, and only current, PSE job |
| X02Q21 | Employment_Description | Prior employment status, PSE and other |
| X01Q23 | Employment_History | Year began first faculty or instructional staff job |
| X02Q23 | Employment_History | Years since began first faculty or instructional staff job |
| X03Q23 | Employment_History | Age when began first faculty or instructional staff job |
| X04Q23 | Education_Attainment | Had doctorate when began first faculty or instructional staff job |
| X05Q23 | Employment_History | Years since began first faculty or instructional staff job, collapsed |
| X06Q23 | Employment_History | Age when began first faculty or instructional staff job, collapsed |
| X01Q31 | Employment_Time Allocation | Average total hours per week worked |
| X02Q31 | Employment_Time Allocation | Work more than 40 hours per week |
| X01Q32 | Employment_Time Allocation | Percent of time spent on instruction |
| X01Q35 | Instruction_Overall | Any instruction for class, individual, or committees |
| X02Q35 | Instruction_Overall | Any instruction, type |
| X03Q35 | Instruction_Overall | Any instruction, combination |
| X04Q35 | Instruction_Overall | Type of classes taught |
| X05Q35 | Instruction_Overall | Total number of classes taught (for-credit and not-for-credit) |
| X01Q36 | Employment_Description | Rank and teaching assistant for credit classes |
| X02Q36 | Employment_Description | Tenure status and teaching assistant for credit classes |
| X01Q37 | Instruction_Classroom_Hours | Total hours/week teaching credit classes |
| X02Q37 | Instruction_Overall | Total student contact hours/week in credit classes |
| X03Q37 | Instruction_Classroom_Hours | Total classroom credit hours in classes |

See notes at end of table.

Table K-2. Faculty Variables-Continued

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| X04Q37 | Instruction_Overall | Total student credit hours in classes |
| X05Q37 | Instruction_Level | Level of students in credit classes |
| X06Q37 | Instruction_Overall | Number of credit classes reported in detail |
| X07Q37 | Instruction_Classroom_Classes | Number of credit classes that were undergraduate |
| X08Q37 | Instruction_Classroom_Classes | Number of credit classes that were graduate/first-professional |
| X09Q37 | Instruction_Overall | Total students taught in credit classes |
| X10Q37 | Instruction_Classroom_Assistant | Reported TA in at least one credit class any level |
| X11Q37 | Instruction_Classroom_Assistant | Reported TA in at least one undergraduate credit class |
| X12Q37 | Instruction_Classroom_Assistant | Reported TA in at least one graduate/first- professional credit class |
| X13Q37 | Instruction_Classroom_Hours | Total classroom credit hours in classes, undergraduate |
| X14Q37 | Instruction_Classroom_Hours | Total classroom credit hours in classes, graduate/firstprofessional |
| X15Q37 | Instruction_Classroom_Hours | Total hours/week teaching credit classes, undergrad |
| X16Q37 | Instruction_Classroom_Hours | Total hours/week teaching credit classes, graduate/firstprofessional |
| X17Q37 | Instruction_Classroom_Hours | Total student contact hours/week in credit classes, undergraduate |
| X18Q37 | Instruction_Classroom_Hours | Total student contact hours/week in credit classes, graduate/first- professional |
| X19Q37 | Instruction_Classroom_Hours | Total student credit hours in classes, undergraduate |
| X20Q37 | Instruction_Classroom_Hours | Total student credit hours in classes, graduate/firstprofessional |
| X21Q37 | Instruction_Classroom_Students | Total students taught in credit classes, undergraduate |
| X22Q37 | Instruction_Classroom_Students | Total students taught in credit classes, graduate/firstprofessional |
| X23Q37 | Instruction_Classroom_Students | Average for-credit class size |
| X24Q37 | Instruction_Classroom_Students | Average undergraduate for-credit class size |
| X25Q37 | Instruction_Classroom_Students | Average graduate/1st professional for-credit class size |
| X26Q37 | Instruction_Level | Taught at least one undergraduate class for credit |
| X01Q39 | Technology_Use | Technology index |
| X01Q47 | Instruction_Individual | Level of student for individual instruction |
| X02Q47 | Instruction_Individual | Individual instruction, number graduate/first-professional students |
| X03Q47 | Instruction_Individual | Individual instruction, number total students |
| X04Q47 | Instruction_Individual | Individual instruction, hours with total students |
| X05Q47 | Instruction_Individual | Individual instruction, hours with graduate/first-professional students |
| X01Q52 | Scholarship_Publications | Career total publications/scholarly works |
| X02Q52 | Scholarship_Publications | Recent total publications/scholarly works |
| X03Q52 | Scholarship_Publications | Recent total presentations, exhibitions, or performances |
| X04Q52 | Scholarship_Publications | Career total presentations, exhibitions, or performances |
| X01Q54 | Scholarship_Research | Principal research field, NSOPF:88 expanded (26 category) |
| X02Q54 | Scholarship_Research | Principal research field, NSOPF:88 (10 category) |
| X03Q54 | Scholarship_Research | Principal research field, vocational included (7 category) |

See notes at end of table.

Table K-2. Faculty Variables-Continued

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| X04Q54 | Scholarship_Research | Principal research field, recoded (11 category) |
| X05Q54 | Scholarship_Research | Principal research field-specific code (contiguous values) |
| X01Q61 | Employment_Satisfaction | Satisfaction, index (sum) of instruction items |
| X01Q62 | Employment_Satisfaction | Satisfaction, index (sum) of employment items |
| X01Q65 | Employment_Future | Retire from all paid employment, planned age, collapsed |
| X02Q65 | Employment_Future | Retire from all paid employment, years until, collapsed |
| X03Q65 | Employment_Future | Retire from all paid employment, planned age, collapsed, with DK |
| X04Q65 | Employment_Future | Retire from all paid employment, years until |
| X05Q65 | Employment_Future | Retire from all paid employment, years until, collapsed, with DK |
| X01Q66 | Finances_Income | Basic salary from institution, collapsed |
| X02Q66 | Finances_Income | Institution total income except basic salary, collapsed |
| X03Q66 | Finances_Income | Total income from the institution |
| X04Q66 | Finances_Income | Total income from the institution, collapsed |
| X05Q66 | Finances_Income | Outside income, consulting/freelance work, collapsed |
| X06Q66 | Finances_Income | Outside income, total excluding consulting |
| X07Q66 | Finances_Income | Outside income, total excluding consulting, collapsed |
| X08Q66 | Finances_Income | Outside income, total (including consulting) |
| X09Q66 | Finances_Income | Outside income, total (including consulting), collapsed |
| X10Q66 | Finances_Income | Received compensation from outside consulting work |
| X11Q66 | Finances_Income | Outside employment income, excluding consulting |
| X12Q66 | Finances_Income | Outside employment income, excluding consulting, collapsed |
| X13Q66 | Finances_Income | Outside employment income, including consulting |
| X14Q66 | Finances_Income | Outside employment income, including consulting, collapsed |
| X01Q70 | Finances_Family | Amount of total household income, collapsed, with don't knows |
| X01Q72 | Background_Demographics | Age in 2004 |
| X02Q72 | Background_Demographics | Age, matches NSOPF:88 distribution |
| X03Q72 | Background_Demographics | Age, matches NSOPF:93 distribution |
| X04Q72 | Background_Demographics | Age, below or above 55 years |
| X01Q74 | Background_Demographics | Race recoded, no more than one race |
| X02Q74 | Background_Demographics | Race including more than one |
| X03Q74 | Background_Demographics | Race/ethnicity recoded |
| X04Q74 | Background_Demographics | Race/ethnicity recoded multiple |
| X05Q74 | Background_Demographics | Race recoded including multiple according to OMB |
| X06Q74 | Background_Demographics | Race/ethnicity including multiple, non-Hispanic |
| X01Q77 | Background_Demographics | Marital status and dependent children |
| X02Q77 | Background_Demographics | Marital status and dependent children, single parent in 2004 |
| X01Q81 | Background_Demographics | Citizenship status and birth |
| X02Q81 | Background_Demographics | Citizenship status and minority status |
| X03Q81 | Background_Demographics | Citizenship status and ethnicity |

[^54]Table K-2. Faculty Variables-Continued

| Variable name | Prefix | Label |
| :---: | :---: | :---: |
| X01Q0 | Institution_Type | 1994 Carnegie (6 cat, all liberal arts) by control, selected cats |
| X02Q0 | Institution_Type | 1994 Carnegie (6 cat, private liberal arts) by control, selected cats |
| X03Q0 | Institution_Type | 1994 Carnegie (5 category) by control, selected categories |
| X04Q0 | Institution_Type | 1994 Carnegie (8 category) by control |
| X05Q0 | Institution_Type | 1994 Carnegie (10 category), separates I/II |
| X06Q0 | Institution_Type | 1994 Carnegie, 4-year versus 2-year |
| X08Q0 | Institution_Type | 1994 Carnegie, doctoral/nondoctoral/2-yr by control |
| X09Q0 | Institution_Other | Degree of urbanization |
| X10Q0 | Institution_Other | Ratio of FTE enrollment/FTE faculty |
| X11Q0 | Institution_Other | Enrollment, undergraduate |
| X12Q0 | Institution_Other | Enrollment, undergraduate, collapsed |
| X13Q0 | Institution_Other | Enrollment FTE, undergraduate |
| X14Q0 | Institution_Other | Enrollment FTE, undergraduate, collapsed |
| X15Q0 | Institution_Other | Enrollment, first-professional |
| X16Q0 | Institution_Other | Enrollment, first-professional, collapsed |
| X17Q0 | Institution_Other | Enrollment FTE, first-professional |
| X18Q0 | Institution_Other | Enrollment FTE, first-professional, collapsed |
| X19Q0 | Institution_Other | Enrollment, graduate |
| X20Q0 | Institution_Other | Enrollment, graduate, collapsed |
| X21Q0 | Institution_Other | Enrollment FTE, graduate |
| X22Q0 | Institution_Other | Enrollment FTE, graduate, collapsed |
| X23Q0 | Institution_Other | Enrollment, total |
| X24Q0 | Institution_Other | Enrollment, total, collapsed |
| X25Q0 | Institution_Other | Enrollment FTE, total |
| X26Q0 | Institution_Other | Enrollment FTE, total, collapsed |
| X27Q0 | Institution_Other | Enrollment minority, American Indian/Alaska Native |
| X28Q0 | Institution_Other | Enrollment minority, Asian/Pacific Islander |
| X29Q0 | Institution_Other | Enrollment minority, Black non-Hispanic |
| X30Q0 | Institution_Other | Enrollment minority, Hispanic |
| X31Q0 | Institution_Other | Core expenses, instruction (in 1000's) |
| X32Q0 | Institution_Other | Core expenses, instruction, collapsed |
| X33Q0 | Institution_Other | Core expenses, research (in 1000's) |
| X34Q0 | Institution_Other | Core expenses, research, collapsed |
| X35Q0 | Institution_Other | Core expenses, total (in 1000's) |
| X36Q0 | Institution_Other | Core expenses, total, collapsed |
| X37Q0 | Institution_Other | Region where institution located |
| X38Q0 | Institution_Type | 1994 Carnegie, doctoral/nondoctoral/2-year |
| X99Q0 | Institution_Type | Institution state |
| X100Q0 | Institution_Type | 2000 Carnegie code, detailed |
| X101Q0 | Institution_Type | Institution control |
| X102Q0 | Institution_Type | Institution level |
| X103Q0 | Institution_Type | Institution control and highest degree awarded, 4 category |
| X104Q0 | Institution_Type | 2000 Carnegie code, 10 category |

See notes at end of table.

Table K-2. Faculty Variables—Continued

| Variable name | Prefix | Label |
| :--- | :--- | :--- |
| X105Q0 | Institution_Type | 2000 Carnegie code, 9 category |
| X106Q0 | Institution_Type | 2000 Carnegie code, 7 category |
| X107Q0 | Institution_Type | 2000 Carnegie code, 5 category |
| X108Q0 | Institution_Type | Institution highest degree awarded, 2 category |
| X109Q0 | Institution_Type | 2000 Carnegie, doctoral/nondoctoral |
| X110Q0 | Institution_Type | 2000 Carnegie code (10 category) by control |
| X111Q0 | Institution_Type | 2000 Carnegie, 2-year versus 4-year |
| X112Q0 | Institution_Type | 2000 Carnegie, doctoral/nondoctoral by control |
| X113Q0 | Institution_Type | 2000 Carnegie, 2-year/4-year by control |
| X120Q0 | Institution_Type | 2000 Carnegie code (5 category) by control |
| X121Q0 | Institution_Type | 2000 Carnegie code (5 category) by control, selected |
|  |  | categories |
| X122Q0 | Institution_Type | Institution control and highest degree awarded, 6 category |
| SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of |  |  |
| Postsecondary Faculty (NSOPF:04). |  |  |

Appendix L GEM Adjustment Procedure

## Generalized Exponential Model (GEM) - an overview

In survey practice, design weights are adjusted to correct the bias introduced by differential nonresponse and undercoverage via nonresponse adjustment and post-stratification. Since these adjustments can increase variance of estimates by creating extreme weights, oftentimes, extreme weight adjustments are applied to reduce variance inflation due to weighting. The Generalized Exponential Model (GEM) program was developed at RTI (Folsom and Singh, 2000) to provide a unified method for all weight adjustments.

GEM is an expansion of the commonly used method of iterative proportional fitting (raking) based on a generalization of Deville and Särndal's (1992) logit method, in that bounds on weights are not required to be uniform. For this purpose, GEM has a built-in extreme weight control feature that allows for different bounds on the adjusted weights for different sample units. This control feature can be used for a separate extreme weight adjustment after poststratification such that sample distribution of weights obtained after the initial poststratification is preserved.

The unadjusted initial weights were classified as extreme if they fell outside of the interval of median $\pm 3 \times$ interquartile range (IQR) within specified domains, where domains were defined as functions of design strata with a minimum sample size requirement of 30 . The goal of model fitting was to keep as many variables as possible without unduly increasing the unequal weighting effects (UWE) and the extreme weight proportion. A mixture of forward and backward selection schemes were used for fitting the GEM model. The model started with the main effects and then two-way and higher order interaction effects were added in a forward manner. Subsequently, the bounds were successively tightened until the model statistics and characteristics were satisfied.

During the modeling, a number of statistics were closely monitored to uncover any unusual impact of weight adjustment on the initial weights. These statistics included UWEs, extreme weight proportions, and distribution of large adjustment factors. GEM summary/ diagnostic statistics provide information on the distribution of the initial and adjusted weights, number of variables in the final model, and the extreme weight proportions.

## Appendix L References

Chen, P., Penne, M.A., \& Singh, A.C. (2000). Experience with the Generalized Exponential Model of Weight Calibration for the National Household Survey on Drug Abuse. American Statistical Association (ASA) Proceedings of the American Statistical Association, Section on Survey Research.

Deville, J.C., \& Särndal, C.E. (1992). Calibration Estimators in Survey Sampling. Journal of the American Statistical Association (JASA), 87, 376-382.

Folsom, R.E., \& Witt, M.B. (1994). Testing a New Attrition Nonresponse Method for SIPP. ASA Proceedings on Survey Research Methodology Section, 428-433.

Folsom, R.E. and Singh, A.C. (2000). The Generalized Exponential Model for Sampling Weight Calibration for Extreme Values, Nonresponse, and Poststratification. Proceedings of the American Statistical Association, Section on Survey Research.

Appendix L. GEM Adjustment Procedure

## Appendix M Design Effects

Researchers who do not have access to software packages such as SUDAAN for calculation of design-based standard errors can use a relevant estimate of design effect from this table to approximate the standard errors of statistics for the 2004 National Study of Postsecondary Faculty (NSOPF:04). For estimates of a proportion, $\hat{p}$, a design-based standard error can be approximated by:

$$
\sqrt{\frac{\hat{p} \times(1-\hat{p})}{n}} \times \mathrm{DEFT}
$$

Similarly, design-based standard errors for estimates of means can be approximated by the following formula, in which $S^{2}$ represents the sample variance under simple random sampling.

$$
\sqrt{\frac{S^{2}}{n}} \times \text { DEFT }
$$

For instance as reported in table $\mathrm{M}-1$, it is estimated that among the 7,460 sample faculty members at public doctoral institutions, 39.7 percent were with tenure as of fall 2003 (Q12). The design based (proper) standard error of this estimate is 0.67 percent, while under the simple random sampling assumption the corresponding (improper) standard error is 0.57 percent. However, a rough approximation of the designed based standard error of this estimate can be produced by multiplying the value of standard error obtained under the simple random estimate assumption ( 0.57 percent) by the estimate of root design effect. This technique is not recommended, however; there are many commercially available statistical software packages to do this.

Table M-1. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by institution type

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | Institution Type ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q1: Percent with instructional duties | 7,460 | 94.15 | 0.31 | 0.27 | 1.32 | 1.15 | 1 |
| Q2: Percent with some credit instruction | 7,460 | 86.80 | 0.48 | 0.39 | 1.53 | 1.24 | 1 |
| Q3: Percent who had faculty status | 7,460 | 94.29 | 0.34 | 0.27 | 1.60 | 1.26 | 1 |
| Q4: Percent whose principal activity was research | 7,460 | 23.35 | 0.62 | 0.49 | 1.61 | 1.27 | 1 |
| Q4: Percent whose principal activity was teaching | 7,460 | 51.45 | 0.54 | 0.58 | 0.87 | 0.93 | 1 |
| Q6: Percent part-time is primary employment | 1,130 | 44.57 | 1.76 | 1.48 | 1.42 | 1.19 | 1 |
| Q8: Percent part-time preferred full-time | 1,130 | 27.44 | 1.36 | 1.33 | 1.05 | 1.02 | 1 |
| Q10: Percent with academic rank of professor | 7,460 | 25.92 | 0.64 | 0.51 | 1.61 | 1.27 | 1 |
| Q12: Percent with tenure | 7,460 | 39.69 | 0.67 | 0.57 | 1.40 | 1.18 | 1 |
| Q15: Percent nonunion union not available | 6,340 | 69.32 | 0.61 | 0.58 | 1.10 | 1.05 | 1 |
| Q19A1: Percent with other job that is full-time | 7,460 | 9.48 | 0.37 | 0.34 | 1.22 | 1.10 | 1 |
| Q35A1: Percent teaching a single credit class | 7,460 | 27.76 | 0.54 | 0.52 | 1.09 | 1.04 | 1 |
| Q37C2: Percent meet > 3 hours for second class | 3,700 | 23.29 | 0.75 | 0.69 | 1.16 | 1.08 | 1 |
| Q37F1: Percent with no TA in first class | 5,590 | 71.32 | 0.70 | 0.61 | 1.32 | 1.15 | 1 |
| Q39: Percent with web site for instruction | 7,460 | 43.53 | 0.60 | 0.57 | 1.08 | 1.04 | 1 |
| Q62A: Percent not "very satisfied" workload | 7,460 | 65.16 | 0.53 | 0.55 | 0.92 | 0.96 | 1 |
| Q64: Percent retired from another position | 7,460 | 6.58 | 0.37 | 0.29 | 1.63 | 1.28 | 1 |
| Q68: Percent paid by the course | 760 | 41.86 | 1.74 | 1.79 | 0.95 | 0.98 | 1 |
| Q77: Percent marital status married | 7,460 | 75.15 | 0.53 | 0.50 | 1.12 | 1.06 | 1 |
| Q77: Percent marital status single | 7,460 | 11.28 | 0.44 | 0.37 | 1.43 | 1.20 | 1 |
| Q81: Percent United States citizen | 7,460 | 88.86 | 0.42 | 0.36 | 1.35 | 1.16 | 1 |
| Q1: Percent with instructional duties | 2,620 | 98.66 | 0.26 | 0.22 | 1.34 | 1.16 | 2 |
| Q2: Percent with some credit instruction | 2,620 | 96.31 | 0.43 | 0.37 | 1.37 | 1.17 | 2 |
| Q3: Percent who had faculty status | 2,620 | 91.84 | 0.74 | 0.54 | 1.91 | 1.38 | 2 |
| Q4: Percent whose principal activity was research | 2,620 | 1.51 | 0.30 | 0.24 | 1.60 | 1.26 | 2 |
| Q4: Percent whose principal activity was teaching | 2,620 | 83.40 | 1.07 | 0.73 | 2.18 | 1.48 | 2 |
| Q6: Percent part-time is primary employment | 670 | 39.61 | 2.25 | 1.89 | 1.41 | 1.19 | 2 |
| Q8: Percent part-time preferred full-time | 670 | 32.77 | 1.74 | 1.82 | 0.92 | 0.96 | 2 |
| Q10: Percent with academic rank of professor | 2,620 | 21.73 | 1.00 | 0.81 | 1.55 | 1.25 | 2 |
| Q12: Percent with tenure | 2,620 | 35.77 | 1.11 | 0.94 | 1.39 | 1.18 | 2 |
| Q15: Percent nonunion union not available | 1,720 | 62.65 | 1.75 | 1.17 | 2.26 | 1.50 | 2 |
| Q19A1: Percent with other job that is full-time | 2,620 | 15.95 | 0.92 | 0.72 | 1.67 | 1.29 | 2 |
| Q35A1: Percent teaching a single credit class | 2,620 | 20.84 | 0.86 | 0.79 | 1.17 | 1.08 | 2 |
| Q37C2: Percent meet > 3 hours for second class | 1,920 | 22.06 | 1.06 | 0.95 | 1.25 | 1.12 | 2 |
| Q37F1: Percent with no TA in first class | 2,370 | 89.73 | 0.67 | 0.62 | 1.16 | 1.08 | 2 |
| Q39: Percent with web site for instruction | 2,620 | 46.02 | 1.26 | 0.97 | 1.67 | 1.29 | 2 |
| Q62A: Percent not "very satisfied" workload | 2,620 | 65.50 | 1.19 | 0.93 | 1.63 | 1.28 | 2 |
| Q64: Percent retired from another position | 2,620 | 11.42 | 0.83 | 0.62 | 1.79 | 1.34 | 2 |
| Q68: Percent paid by the course | 490 | 37.66 | 3.20 | 2.19 | 2.14 | 1.46 | 2 |
| Q77: Percent marital status married | 2,620 | 71.39 | 1.02 | 0.88 | 1.33 | 1.15 | 2 |
| Q77: Percent marital status single | 2,620 | 12.54 | 0.76 | 0.65 | 1.39 | 1.18 | 2 |
| Q81: Percent United States citizen | 2,620 | 94.53 | 0.49 | 0.44 | 1.20 | 1.10 | 2 |
| Q1: Percent with instructional duties | 510 | 98.09 | 1.54 | 0.60 | 6.49 | 2.55 | 3 |
| Q2: Percent with some credit instruction | 510 | 95.84 | 1.82 | 0.88 | 4.26 | 2.06 | 3 |

[^55]Table M-1. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by institution type-Continued

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | Institution Type ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q3: Percent who had faculty status | 510 | 93.06 | 1.74 | 1.12 | 2.40 | 1.55 | 3 |
| Q4: Percent whose principal activity was research | 510 | 0.48 | 0.24 | 0.31 | 0.61 | 0.78 | 3 |
| Q4: Percent whose principal activity was teaching | 510 | 86.61 | 2.32 | 1.50 | 2.38 | 1.54 | 3 |
| Q6: Percent part-time is primary employment | 140 | 33.70 | 5.85 | 4.02 | 2.11 | 1.45 | 3 |
| Q8: Percent part-time preferred full-time | 140 | 45.17 | 5.43 | 4.24 | 1.64 | 1.28 | 3 |
| Q10: Percent with academic rank of professor | 510 | 14.08 | 3.05 | 1.54 | 3.93 | 1.98 | 3 |
| Q12: Percent with tenure | 510 | 29.59 | 1.98 | 2.02 | 0.96 | 0.98 | 3 |
| Q15: Percent nonunion union not available | 340 | 56.38 | 8.12 | 2.68 | 9.16 | 3.03 | 3 |
| Q19A1: Percent with other job that is full-time | 510 | 17.62 | 2.39 | 1.68 | 2.02 | 1.42 | 3 |
| Q35A1: Percent teaching a single credit class | 510 | 22.41 | 2.56 | 1.84 | 1.93 | 1.39 | 3 |
| Q37C2: Percent meet > 3 hours for second class | 390 | 24.29 | 3.10 | 2.18 | 2.02 | 1.42 | 3 |
| Q37F1: Percent with no TA in first class | 470 | 93.19 | 1.86 | 1.16 | 2.56 | 1.60 | 3 |
| Q39: Percent with web site for instruction | 510 | 47.37 | 4.81 | 2.20 | 4.77 | 2.18 | 3 |
| Q62A: Percent not "very satisfied" workload | 510 | 64.03 | 2.81 | 2.12 | 1.76 | 1.33 | 3 |
| Q64: Percent retired from another position | 510 | 11.68 | 2.62 | 1.42 | 3.41 | 1.85 | 3 |
| Q68: Percent paid by the course | 110 | 31.91 | 10.51 | 4.42 | 5.64 | 2.38 | 3 |
| Q77: Percent marital status married | 510 | 69.71 | 2.52 | 2.03 | 1.54 | 1.24 | 3 |
| Q77: Percent marital status single | 510 | 10.76 | 2.13 | 1.37 | 2.43 | 1.56 | 3 |
| Q81: Percent United States citizen | 510 | 95.55 | 1.49 | 0.91 | 2.68 | 1.64 | 3 |
| Q1: Percent with instructional duties | 6,420 | 98.94 | 0.18 | 0.13 | 1.96 | 1.40 | 4 |
| Q2: Percent with some credit instruction | 6,420 | 88.51 | 0.72 | 0.40 | 3.31 | 1.82 | 4 |
| Q3: Percent who had faculty status | 6,420 | 89.74 | 0.52 | 0.38 | 1.87 | 1.37 | 4 |
| Q4: Percent whose principal activity was research | 6,420 | 0.04 | 0.03 | 0.03 | 0.97 | 0.99 | 4 |
| Q4: Percent whose principal activity was teaching | 6,420 | 89.33 | 0.53 | 0.39 | 1.88 | 1.37 | 4 |
| Q6: Percent part-time is primary employment | 3,500 | 34.18 | 0.99 | 0.80 | 1.53 | 1.24 | 4 |
| Q8: Percent part-time preferred full-time | 3,500 | 40.24 | 1.08 | 0.83 | 1.70 | 1.30 | 4 |
| Q10: Percent with academic rank of professor | 6,420 | 9.00 | 0.76 | 0.36 | 4.58 | 2.14 | 4 |
| Q12: Percent with tenure | 6,420 | 17.83 | 0.64 | 0.48 | 1.81 | 1.35 | 4 |
| Q15: Percent nonunion union not available | 3,980 | 50.28 | 1.46 | 0.79 | 3.38 | 1.84 | 4 |
| Q19A1: Percent with other job that is full-time | 6,420 | 32.58 | 0.84 | 0.59 | 2.06 | 1.43 | 4 |
| Q35A1: Percent teaching a single credit class | 6,420 | 27.52 | 0.69 | 0.56 | 1.55 | 1.25 | 4 |
| Q37C2: Percent meet > 3 hours for second class | 3,890 | 43.75 | 1.13 | 0.80 | 2.02 | 1.42 | 4 |
| Q37F1: Percent with no TA in first class | 5,390 | 93.99 | 0.52 | 0.32 | 2.54 | 1.59 | 4 |
| Q39: Percent with web site for instruction | 6,420 | 31.59 | 0.95 | 0.58 | 2.67 | 1.63 | 4 |
| Q62A: Percent not "very satisfied" workload | 6,420 | 49.26 | 0.82 | 0.62 | 1.72 | 1.31 | 4 |
| Q64: Percent retired from another position | 6,420 | 16.06 | 0.70 | 0.46 | 2.32 | 1.52 | 4 |
| Q68: Percent paid by the course | 3,000 | 26.74 | 1.39 | 0.81 | 2.97 | 1.72 | 4 |
| Q77: Percent marital status married | 6,420 | 71.69 | 0.95 | 0.56 | 2.87 | 1.69 | 4 |
| Q77: Percent marital status single | 6,420 | 10.71 | 0.55 | 0.39 | 2.06 | 1.44 | 4 |
| Q81: Percent United States citizen | 6,420 | 98.14 | 0.21 | 0.17 | 1.53 | 1.24 | 4 |
| Q1: Percent with instructional duties | 110 | 99.15 | 0.95 | 0.89 | 1.12 | 1.06 | 5 |
| Q2: Percent with some credit instruction | 110 | 92.09 | 8.46 | 2.62 | 10.41 | 3.23 | 5 |
| Q3: Percent who had faculty status | 110 | 79.54 | 9.38 | 3.92 | 5.73 | 2.39 | 5 |
| Q4: Percent whose principal activity was research | 110 | 2.02 | 1.09 | 1.37 | 0.64 | 0.80 | 5 |

[^56]Table M-1. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by institution type-Continued

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | Institution Type ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q4: Percent whose principal activity was teaching | 110 | 87.80 | 4.78 | 3.18 | 2.26 | 1.50 | 5 |
| Q6: Percent part-time is primary employment | 50 | 32.82 | 5.85 | 6.85 | 0.73 | 0.85 | 5 |
| Q8: Percent part-time preferred full-time | 50 | 35.62 | 8.43 | 6.99 | 1.46 | 1.21 | 5 |
| Q10: Percent with academic rank of professor | 110 | 12.05 | 1.26 | 3.16 | 0.16 | 0.40 | 5 |
| Q12: Percent with tenure | 110 | 26.85 | 1.98 | 4.30 | 0.21 | 0.46 | 5 |
| Q15: Percent nonunion union not available | 80 | 68.09 | 15.72 | 5.35 | 8.65 | 2.94 | 5 |
| Q19A1: Percent with other job that is full-time | 110 | 20.84 | 5.90 | 3.94 | 2.24 | 1.50 | 5 |
| Q35A1: Percent teaching a single credit class | 110 | 31.12 | 10.61 | 4.50 | 5.57 | 2.36 | 5 |
| Q37C2: Percent meet > 3 hours for second class | 60 | 26.31 | 8.87 | 5.59 | 2.51 | 1.59 | 5 |
| Q37F1: Percent with no TA in first class | 100 | 92.51 | 2.59 | 2.66 | 0.95 | 0.97 | 5 |
| Q39: Percent with web site for instruction | 110 | 48.35 | 5.30 | 4.85 | 1.19 | 1.09 | 5 |
| Q62A: Percent not "very satisfied" workload | 110 | 55.72 | 7.05 | 4.82 | 2.14 | 1.46 | 5 |
| Q64: Percent retired from another position | 110 | 17.86 | 11.66 | 3.72 | 9.82 | 3.13 | 5 |
| Q68: Percent paid by the course | 40 | 33.77 | 16.58 | 7.88 | 4.42 | 2.10 | 5 |
| Q77: Percent marital status married | 110 | 66.41 | 5.07 | 4.59 | 1.22 | 1.10 | 5 |
| Q77: Percent marital status single | 110 | 11.90 | 5.80 | 3.15 | 3.40 | 1.84 | 5 |
| Q81: Percent United States citizen | 110 | 94.02 | 4.66 | 2.30 | 4.10 | 2.02 | 5 |
| Q1: Percent with instructional duties | 3,160 | 94.56 | 0.60 | 0.40 | 2.22 | 1.49 | 6 |
| Q2: Percent with some credit instruction | 3,160 | 86.28 | 0.55 | 0.61 | 0.80 | 0.89 | 6 |
| Q3: Percent who had faculty status | 3,160 | 95.71 | 0.54 | 0.36 | 2.27 | 1.51 | 6 |
| Q4: Percent whose principal activity was research | 3,160 | 20.98 | 0.74 | 0.72 | 1.03 | 1.02 | 6 |
| Q4: Percent whose principal activity was teaching | 3,160 | 52.90 | 1.08 | 0.89 | 1.49 | 1.22 | 6 |
| Q6: Percent part-time is primary employment | 710 | 31.72 | 1.84 | 1.75 | 1.11 | 1.05 | 6 |
| Q8: Percent part-time preferred full-time | 710 | 30.13 | 1.71 | 1.72 | 0.98 | 0.99 | 6 |
| Q10: Percent with academic rank of professor | 3,160 | 23.77 | 0.62 | 0.76 | 0.68 | 0.82 | 6 |
| Q12: Percent with tenure | 3,160 | 30.51 | 0.75 | 0.82 | 0.84 | 0.91 | 6 |
| Q15: Percent nonunion union not available | 3,040 | 86.37 | 0.69 | 0.62 | 1.24 | 1.12 | 6 |
| Q19A1: Percent with other job that is full-time | 3,160 | 16.26 | 0.55 | 0.66 | 0.70 | 0.84 | 6 |
| Q35A1: Percent teaching a single credit class | 3,160 | 30.37 | 0.98 | 0.82 | 1.42 | 1.19 | 6 |
| Q37C2: Percent meet > 3 hours for second class | 1,450 | 28.16 | 1.42 | 1.18 | 1.44 | 1.20 | 6 |
| Q37F1: Percent with no TA in first class | 2,300 | 72.08 | 1.09 | 0.94 | 1.37 | 1.17 | 6 |
| Q39: Percent with web site for instruction | 3,160 | 40.76 | 0.81 | 0.87 | 0.86 | 0.92 | 6 |
| Q62A: Percent not "very satisfied" workload | 3,160 | 58.08 | 1.03 | 0.88 | 1.37 | 1.17 | 6 |
| Q64: Percent retired from another position | 3,160 | 8.24 | 0.61 | 0.49 | 1.57 | 1.25 | 6 |
| Q68: Percent paid by the course | 540 | 46.27 | 2.04 | 2.14 | 0.91 | 0.96 | 6 |
| Q77: Percent marital status married | 3,160 | 74.67 | 0.90 | 0.77 | 1.34 | 1.16 | 6 |
| Q77: Percent marital status single | 3,160 | 12.20 | 0.62 | 0.58 | 1.13 | 1.06 | 6 |
| Q81: Percent United States citizen | 3,160 | 88.03 | 0.55 | 0.58 | 0.92 | 0.96 | 6 |
| Q1: Percent with instructional duties | 2,270 | 98.40 | 0.32 | 0.26 | 1.46 | 1.21 | 7 |
| Q2: Percent with some credit instruction | 2,270 | 96.21 | 0.42 | 0.40 | 1.08 | 1.04 | 7 |
| Q3: Percent who had faculty status | 2,270 | 92.58 | 0.72 | 0.55 | 1.70 | 1.30 | 7 |
| Q4: Percent whose principal activity was research | 2,270 | 0.34 | 0.15 | 0.12 | 1.53 | 1.24 | 7 |
| Q4: Percent whose principal activity was teaching | 2,270 | 86.88 | 0.86 | 0.71 | 1.47 | 1.21 | 7 |
| Q6: Percent part-time is primary employment | 1,000 | 23.27 | 2.42 | 1.34 | 3.28 | 1.81 | 7 |

[^57]Table M-1. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by institution type-Continued

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | InstitutionType $^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q8: Percent part-time preferred full-time | 1,000 | 27.91 | 1.44 | 1.42 | 1.03 | 1.02 | 7 |
| Q10: Percent with academic rank of professor | 2,270 | 12.51 | 0.67 | 0.69 | 0.93 | 0.96 | 7 |
| Q12: Percent with tenure | 2,270 | 19.19 | 1.00 | 0.83 | 1.46 | 1.21 | 7 |
| Q15: Percent nonunion union not available | 2,130 | 81.42 | 1.41 | 0.84 | 2.79 | 1.67 | 7 |
| Q19A1: Percent with other job that is full-time | 2,270 | 31.46 | 1.64 | 0.97 | 2.84 | 1.69 | 7 |
| Q35A1: Percent teaching a single credit class | 2,270 | 29.91 | 1.29 | 0.96 | 1.79 | 1.34 | 7 |
| Q37C2: Percent meet > 3 hours for second class | 1,440 | 37.87 | 2.86 | 1.28 | 4.99 | 2.23 | 7 |
| Q37F1: Percent with no TA in first class | 2,040 | 92.04 | 1.09 | 0.60 | 3.31 | 1.82 | 7 |
| Q39: Percent with web site for instruction | 2,270 | 43.29 | 1.64 | 1.04 | 2.47 | 1.57 | 7 |
| Q62A: Percent not "very satisfied" workload | 2,270 | 52.49 | 1.17 | 1.05 | 1.25 | 1.12 | 7 |
| Q64: Percent retired from another position | 2,270 | 15.94 | 1.27 | 0.77 | 2.75 | 1.66 | 7 |
| Q68: Percent paid by the course | 860 | 56.06 | 2.98 | 1.70 | 3.09 | 1.76 | 7 |
| Q77: Percent marital status married | 2,270 | 75.63 | 1.38 | 0.90 | 2.35 | 1.53 | 7 |
| Q77: Percent marital status single | 2,270 | 10.78 | 1.06 | 0.65 | 2.65 | 1.63 | 7 |
| Q81: Percent United States citizen | 2,270 | 96.69 | 0.53 | 0.38 | 2.00 | 1.41 | 7 |
| Q1: Percent with instructional duties | 2,520 | 97.52 | 0.53 | 0.31 | 2.90 | 1.70 | 8 |
| Q2: Percent with some credit instruction | 2,520 | 95.55 | 0.86 | 0.41 | 4.39 | 2.10 | 8 |
| Q3: Percent who had faculty status | 2,520 | 91.72 | 1.01 | 0.55 | 3.39 | 1.84 | 8 |
| Q4: Percent whose principal activity was research | 2,520 | 1.25 | 0.37 | 0.22 | 2.85 | 1.69 | 8 |
| Q4: Percent whose principal activity was teaching | 2,520 | 83.00 | 1.20 | 0.75 | 2.59 | 1.61 | 8 |
| Q6: Percent part-time is primary employment | 680 | 30.33 | 3.25 | 1.76 | 3.40 | 1.84 | 8 |
| Q8: Percent part-time preferred full-time | 680 | 27.75 | 2.20 | 1.72 | 1.64 | 1.28 | 8 |
| Q10: Percent with academic rank of professor | 2,520 | 19.86 | 1.27 | 0.79 | 2.56 | 1.60 | 8 |
| Q12: Percent with tenure | 2,520 | 28.09 | 1.84 | 0.89 | 4.22 | 2.05 | 8 |
| Q15: Percent nonunion union not available | 2,300 | 81.27 | 2.07 | 0.81 | 6.49 | 2.55 | 8 |
| Q19A1: Percent with other job that is full-time | 2,520 | 18.46 | 1.27 | 0.77 | 2.71 | 1.65 | 8 |
| Q35A1: Percent teaching a single credit class | 2,520 | 23.85 | 1.48 | 0.85 | 3.03 | 1.74 | 8 |
| Q37C2: Percent meet > 3 hours for second class | 1,800 | 28.11 | 2.06 | 1.06 | 3.77 | 1.94 | 8 |
| Q37F1: Percent with no TA in first class | 2,290 | 85.87 | 1.06 | 0.73 | 2.12 | 1.46 | 8 |
| Q39: Percent with web site for instruction | 2,520 | 42.21 | 1.69 | 0.98 | 2.96 | 1.72 | 8 |
| Q62A: Percent not "very satisfied" workload | 2,520 | 56.44 | 1.55 | 0.99 | 2.46 | 1.57 | 8 |
| Q64: Percent retired from another position | 2,520 | 11.90 | 0.89 | 0.64 | 1.90 | 1.38 | 8 |
| Q68: Percent paid by the course | 540 | 56.68 | 3.57 | 2.13 | 2.81 | 1.68 | 8 |
| Q77: Percent marital status married | 2,520 | 72.43 | 1.20 | 0.89 | 1.80 | 1.34 | 8 |
| Q77: Percent marital status single | 2,520 | 13.69 | 0.91 | 0.68 | 1.75 | 1.32 | 8 |
| Q81: Percent United States citizen | 2,520 | 95.32 | 0.61 | 0.42 | 2.13 | 1.46 | 8 |
| Q1: Percent with instructional duties | 190 | 98.64 | 1.00 | 0.84 | 1.40 | 1.18 | 9 |
| Q2: Percent with some credit instruction | 190 | 95.07 | 3.41 | 1.57 | 4.71 | 2.17 | 9 |
| Q3: Percent who had faculty status | 190 | 74.61 | 5.58 | 3.16 | 3.12 | 1.77 | 9 |
| Q4: Percent whose principal activity was teaching | 190 | 79.49 | 5.71 | 2.93 | 3.80 | 1.95 | 9 |
| Q6: Percent part-time is primary employment | 190 | 57.09 | 5.42 | 3.59 | 2.28 | 1.51 | 9 |
| Q8: Percent part-time preferred full-time | 60 | 40.26 | 3.59 | 6.18 | 0.34 | 0.58 | 9 |
| Q10: Percent with academic rank of professor | 190 | 0.00 | 0.00 | 0.00 |  |  | 9 |

See notes at end of table.

Table M-1. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by institution type-Continued

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | Institution Type ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q12: Percent with tenure | 190 | 8.93 | 2.71 | 2.07 | 1.72 | 1.31 | 9 |
| Q15: Percent nonunion union not available | 60 | 39.47 | 4.22 | 6.16 | 0.47 | 0.69 | 9 |
| Q19A1: Percent with other job that is full-time | 190 | 25.10 | 1.15 | 3.15 | 0.13 | 0.36 | 9 |
| Q35A1: Percent teaching a single credit class | 190 | 98.43 | 1.02 | 0.90 | 1.28 | 1.13 | 9 |
| Q37C2: Percent meet > 3 hours for second class | 170 | 90.02 | 0.92 | 2.30 | 0.16 | 0.40 | 9 |
| Q37F1: Percent with no TA in first class | 190 | 21.35 | 3.31 | 2.97 | 1.24 | 1.11 | 9 |
| Q39: Percent with web site for instruction | 190 | 13.20 | 3.17 | 2.46 | 1.67 | 1.29 | 9 |
| Q62A: Percent not "very satisfied" workload | 140 | 18.05 | 4.83 | 3.31 | 2.13 | 1.46 | 9 |
| Q64: Percent retired from another position | 190 | 49.08 | 5.08 | 3.63 | 1.96 | 1.40 | 9 |
| Q68: Percent paid by the course | 170 | 92.59 | 5.46 | 1.99 | 7.53 | 2.74 | 9 |
| Q77: Percent marital status married | 190 | 7.48 | 1.60 | 1.91 | 0.70 | 0.84 | 9 |
| Q77: Percent marital status single | 190 | 13.98 | 4.92 | 2.52 | 3.83 | 1.96 | 9 |
| Q81: Percent United States citizen | 190 | 84.06 | 2.58 | 2.66 | 0.94 | 0.97 | 9 |
| Q1: Percent with instructional duties | 50 | 27.05 | 5.70 | 6.10 | 0.87 | 0.93 | 10 |
| Q2: Percent with some credit instruction | 850 | 97.63 | 0.82 | 0.52 | 2.44 | 1.56 | 10 |
| Q3: Percent who had faculty status | 850 | 94.74 | 1.07 | 0.77 | 1.95 | 1.40 | 10 |
| Q4: Percent whose principal activity was research | 850 | 83.12 | 2.49 | 1.29 | 3.75 | 1.94 | 10 |
| Q4: Percent whose principal activity was teaching | 850 | 94.27 | 1.13 | 0.80 | 2.02 | 1.42 | 10 |
| Q6: Percent part-time is primary employment | 850 | 55.28 | 2.30 | 1.71 | 1.82 | 1.35 | 10 |
| Q8: Percent part-time preferred full-time | 420 | 22.07 | 3.06 | 2.02 | 2.29 | 1.51 | 10 |
| Q10: Percent with academic rank of professor | 850 | 1.33 | 0.64 | 0.39 | 2.61 | 1.62 | 10 |
| Q12: Percent with tenure | 850 | 19.68 | 2.15 | 1.36 | 2.49 | 1.58 | 10 |
| Q15: Percent nonunion union not available | 420 | 31.08 | 4.87 | 2.26 | 4.64 | 2.15 | 10 |
| Q19A1: Percent with other job that is full-time | 850 | 13.54 | 2.72 | 1.17 | 5.35 | 2.31 | 10 |
| Q35A1: Percent teaching a single credit class | 850 | 95.19 | 1.30 | 0.73 | 3.11 | 1.76 | 10 |
| Q37C2: Percent meet > 3 hours for second class | 740 | 88.65 | 2.36 | 1.16 | 4.11 | 2.03 | 10 |
| Q37F1: Percent with no TA in first class | 850 | 33.17 | 3.13 | 1.62 | 3.75 | 1.94 | 10 |
| Q39: Percent with web site for instruction | 850 | 30.57 | 2.14 | 1.58 | 1.83 | 1.35 | 10 |
| Q62A: Percent not "very satisfied" workload | 490 | 26.40 | 4.67 | 1.99 | 5.50 | 2.34 | 10 |
| Q64: Percent retired from another position | 850 | 35.00 | 5.48 | 1.64 | 11.20 | 3.35 | 10 |
| Q68: Percent paid by the course | 780 | 88.63 | 2.48 | 1.14 | 4.72 | 2.17 | 10 |
| Q77: Percent marital status married | 850 | 14.07 | 1.96 | 1.19 | 2.70 | 1.64 | 10 |
| Q77: Percent marital status single | 850 | 10.49 | 1.43 | 1.05 | 1.84 | 1.36 | 10 |
| Q81: Percent United States citizen | 850 | 69.94 | 3.04 | 1.57 | 3.73 | 1.93 | 10 |

${ }^{1}$ Numbers rounded to the nearest 10.
${ }^{2}$ Institution types are defined as follows: $1=$ public doctor's; $2=$ public master's; $3=$ public bachelor's; $4=$ public associate's; $5=$ public other; $6=$ private not-for-profit doctor's; $7=$ private not-for-profit master's; $7=$ private not-forprofit bachelor's; $8=$ private not-for-profit associate's; $9=$ private not-for-profit associate's; and $10=$ private not-forprofit other.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table M-2. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by race/ethnicity

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | Race/ ethnicity ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q1: Percent with instructional duties | 20,390 | 9712 | 015 | 012 | 162 | 127 | White |
| Q2: Percent with some credit instruction | 20,390 | 9055 | 031 | 020 | 225 | 150 | White |
| Q3: Percent who had faculty status | 20,390 | 9204 | 028 | 019 | 218 | 148 | White |
| Q4: Percent whose principal activity was teaching | 20,390 | 7486 | 036 | 030 | 139 | 118 | White |
| Q4: Percent whose principal activity was research | 20,390 | 777 | 018 | 019 | 097 | 099 | White |
| Q6: Percent part-time is primary employment | 6,260 | 3459 | 068 | 060 | 126 | 112 | White |
| Q8: Percent part-time preferred full-time | 6,260 | 3312 | 068 | 059 | 129 | 114 | White |
| Q10: Percent with academic rank of professor | 20,390 | 1865 | 035 | 027 | 162 | 127 | White |
| Q12: Percent with tenure | 20,390 | 2836 | 041 | 032 | 171 | 131 | White |
| Q15: Percent nonunion union not available | 16,600 | 6971 | 059 | 036 | 276 | 166 | White |
| Q19A1: Percent with other job that is full-time | 20,390 | 2162 | 039 | 029 | 179 | 134 | White |
| Q35A1: Percent teaching a single credit class | 20,390 | 2758 | 041 | 031 | 175 | 132 | White |
| Q37F1: Percent with no TA in first class | 16,860 | 8552 | 034 | 027 | 156 | 125 | White |
| Q37C2: Percent meet > 3 hours for second class | 11,990 | 3171 | 071 | 043 | 283 | 168 | White |
| Q39: Percent with web site for instruction | 20,390 | 3991 | 047 | 034 | 192 | 138 | White |
| Q62A: Percent not "very satisfied" workload | 20,390 | 5638 | 036 | 035 | 107 | 103 | White |
| Q64: Percent retired from another position | 20,390 | 1233 | 033 | 023 | 200 | 142 | White |
| Q68: Percent paid by the course | 5,080 | 3695 | 100 | 068 | 218 | 148 | White |
| Q77: Percent marital status single | 20,390 | 1075 | 027 | 022 | 150 | 123 | White |
| Q77: Percent marital status married | 20,390 | 7422 | 041 | 031 | 180 | 134 | White |
| Q81: Percent United States citizen | 20,390 | 9610 | 019 | 014 | 200 | 141 | White |
| Q1: Percent with instructional duties | 1,940 | 9826 | 033 | 030 | 120 | 109 | Black |
| Q2: Percent with some credit instruction | 1,940 | 9108 | 087 | 065 | 182 | 135 | Black |
| Q3: Percent who had faculty status | 1,940 | 9107 | 099 | 065 | 232 | 152 | Black |
| Q4: Percent whose principal activity was teaching | 1,940 | 7588 | 142 | 097 | 213 | 146 | Black |
| Q4: Percent whose principal activity was research | 1,940 | 538 | 075 | 051 | 212 | 146 | Black |
| Q6: Percent part-time is primary employment | 890 | 2342 | 216 | 142 | 233 | 153 | Black |
| Q8: Percent part-time preferred full-time | 890 | 4053 | 212 | 164 | 167 | 129 | Black |
| Q10: Percent with academic rank of professor | 1,940 | 1253 | 117 | 075 | 244 | 156 | Black |
| Q12: Percent with tenure | 1,940 | 2423 | 141 | 097 | 211 | 145 | Black |
| Q15: Percent nonunion union not available | 1,440 | 6361 | 207 | 127 | 265 | 163 | Black |
| Q19A1: Percent with other job that is full-time | 1,940 | 2790 | 106 | 102 | 108 | 104 | Black |
| Q35A1: Percent teaching a single credit class | 1,940 | 2565 | 152 | 099 | 235 | 153 | Black |
| Q37F1: Percent with no TA in first class | 1,580 | 8947 | 112 | 077 | 209 | 145 | Black |
| Q37C2: Percent meet > 3 hours for second class | 1,120 | 3118 | 183 | 138 | 176 | 133 | Black |
| Q39: Percent with web site for instruction | 1,940 | 3516 | 137 | 108 | 160 | 127 | Black |
| Q62A: Percent not "very satisfied" workload | 1,940 | 5879 | 166 | 112 | 221 | 149 | Black |
| Q64: Percent retired from another position | 1,940 | 1134 | 090 | 072 | 157 | 125 | Black |
| Q68: Percent paid by the course | 730 | 3867 | 285 | 180 | 251 | 158 | Black |
| Q77: Percent marital status single | 1,940 | 1879 | 106 | 089 | 144 | 120 | Black |
| Q77: Percent marital status married | 1,940 | 5811 | 140 | 112 | 156 | 125 | Black |
| Q81: Percent United States citizen | 1,940 | 9272 | 068 | 059 | 135 | 116 | Black |

[^58]Table M-2. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by race/ethnicity-Continued

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | Race/ ethnicity ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q1: Percent with instructional duties | 1,530 | 93.47 | 0.78 | 0.63 | 1.50 | 1.23 | Asian ${ }^{2}$ |
| Q2: Percent with some credit instruction | 1,530 | 85.75 | 0.95 | 0.89 | 1.13 | 1.06 | Asian ${ }^{2}$ |
| Q3: Percent who had faculty status | 1,530 | 95.18 | 0.79 | 0.55 | 2.08 | 1.44 | Asian ${ }^{2}$ |
| Q4: Percent whose principal activity was teaching | 1,530 | 54.23 | 1.22 | 1.28 | 0.92 | 0.96 | Asian ${ }^{2}$ |
| Q4: Percent whose principal activity was research | 1,530 | 27.06 | 1.30 | 1.14 | 1.31 | 1.15 | Asian ${ }^{2}$ |
| Q6: Percent part-time is primary employment | 350 | 43.28 | 4.10 | 2.65 | 2.39 | 1.54 | Asian ${ }^{2}$ |
| Q8: Percent part-time preferred full-time | 350 | 42.80 | 3.32 | 2.65 | 1.57 | 1.25 | Asian ${ }^{2}$ |
| Q10: Percent with academic rank of professor | 1,530 | 17.49 | 1.22 | 0.97 | 1.59 | 1.26 | Asian ${ }^{2}$ |
| Q12: Percent with tenure | 1,530 | 30.97 | 1.47 | 1.18 | 1.55 | 1.24 | Asian ${ }^{2}$ |
| Q15: Percent nonunion union not available | 1,160 | 69.95 | 1.83 | 1.35 | 1.85 | 1.36 | Asian ${ }^{2}$ |
| Q19A1: Percent with other job that is full-time | 1,530 | 9.60 | 0.87 | 0.75 | 1.32 | 1.15 | Asian ${ }^{2}$ |
| Q35A1: Percent teaching a single credit class | 1,530 | 24.34 | 1.48 | 1.10 | 1.81 | 1.35 | Asian ${ }^{2}$ |
| Q37F1: Percent with no TA in first class | 1,180 | 72.53 | 1.67 | 1.30 | 1.65 | 1.28 | Asian ${ }^{2}$ |
| Q37C2: Percent meet > 3 hours for second class | 830 | 29.47 | 1.86 | 1.58 | 1.38 | 1.18 | Asian ${ }^{2}$ |
| Q39: Percent with web site for instruction | 1,530 | 41.76 | 1.29 | 1.26 | 1.04 | 1.02 | Asian ${ }^{2}$ |
| Q62A: Percent not "very satisfied" workload | 1,530 | 71.18 | 1.27 | 1.16 | 1.21 | 1.10 | Asian ${ }^{2}$ |
| Q64: Percent retired from another position | 1,530 | 5.02 | 0.65 | 0.56 | 1.37 | 1.17 | Asian ${ }^{2}$ |
| Q68: Percent paid by the course | 260 | 24.30 | 3.38 | 2.66 | 1.61 | 1.27 | Asian ${ }^{2}$ |
| Q77: Percent marital status single | 1,530 | 12.58 | 1.30 | 0.85 | 2.34 | 1.53 | Asian ${ }^{2}$ |
| Q77: Percent marital status married | 1,530 | 79.22 | 1.47 | 1.04 | 2.01 | 1.42 | Asian ${ }^{2}$ |
| Q81: Percent United States citizen | 1,530 | 66.41 | 1.41 | 1.21 | 1.35 | 1.16 | Asian ${ }^{2}$ |
| Q1: Percent with instructional duties | 1,700 | 97.77 | 0.43 | 0.36 | 1.48 | 1.21 | Hispanic |
| Q2: Percent with some credit instruction | 1,700 | 88.37 | 1.12 | 0.78 | 2.07 | 1.44 | Hispanic |
| Q3: Percent who had faculty status | 1,700 | 90.88 | 0.84 | 0.70 | 1.46 | 1.21 | Hispanic |
| Q4: Percent whose principal activity was teaching | 1,700 | 77.18 | 1.39 | 1.02 | 1.87 | 1.37 | Hispanic |
| Q4: Percent whose principal activity was research | 1,700 | 7.36 | 0.58 | 0.63 | 0.84 | 0.92 | Hispanic |
| Q6: Percent part-time is primary employment | 660 | 29.53 | 2.73 | 1.78 | 2.37 | 1.54 | Hispanic |
| Q8: Percent part-time preferred full-time | 660 | 44.80 | 2.97 | 1.94 | 2.35 | 1.53 | Hispanic |
| Q10: Percent with academic rank of professor | 1,700 | 12.43 | 0.82 | 0.80 | 1.06 | 1.03 | Hispanic |
| Q12: Percent with tenure | 1,700 | 24.07 | 1.35 | 1.04 | 1.69 | 1.30 | Hispanic |
| Q15: Percent nonunion union not available | 1,270 | 59.94 | 2.20 | 1.37 | 2.56 | 1.60 | Hispanic |
| Q19A1: Percent with Hispanic job that is full-time | 1,700 | 24.05 | 1.74 | 1.04 | 2.81 | 1.68 | Hispanic |
| Q35A1: Percent teaching a single credit class | 1,700 | 26.96 | 1.31 | 1.08 | 1.49 | 1.22 | Hispanic |
| Q37F1: Percent with no TA in first class | 1,390 | 84.79 | 1.22 | 0.96 | 1.60 | 1.27 | Hispanic |
| Q37C2: Percent meet > 3 hours for second class | 1,000 | 30.66 | 1.96 | 1.46 | 1.80 | 1.34 | Hispanic |
| Q39: Percent with web site for instruction | 1,700 | 37.84 | 1.77 | 1.17 | 2.27 | 1.51 | Hispanic |
| Q62A: Percent not "very satisfied" workload | 1,700 | 57.72 | 1.75 | 1.20 | 2.15 | 1.47 | Hispanic |
| Q64: Percent retired from another position | 1,700 | 9.47 | 1.04 | 0.71 | 2.14 | 1.46 | Hispanic |
| Q68: Percent paid by the course | 520 | 39.54 | 3.38 | 2.15 | 2.46 | 1.57 | Hispanic |
| Q77: Percent marital status single | 1,700 | 15.98 | 1.24 | 0.89 | 1.95 | 1.40 | Hispanic |
| Q77: Percent marital status married | 1,700 | 66.47 | 1.70 | 1.14 | 2.20 | 1.48 | Hispanic |
| Q81: Percent United States citizen | 1,700 | 86.72 | 0.98 | 0.82 | 1.43 | 1.19 | Hispanic |

See notes at end of table.

Table M-2. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by race/ethnicity-Continued

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | Race/ ethnicity ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q1: Percent with instructional duties | 550 | 97.76 | 1.23 | 0.63 | 3.79 | 1.95 | Other |
| Q2: Percent with some credit instruction | 550 | 90.89 | 2.23 | 1.23 | 3.29 | 1.81 | Other |
| Q3: Percent who had faculty status | 550 | 93.28 | 1.17 | 1.07 | 1.20 | 1.10 | Other |
| Q4: Percent whose principal activity was teaching | 550 | 78.99 | 2.38 | 1.74 | 1.87 | 1.37 | Other |
| Q4: Percent whose principal activity was research | 550 | 4.94 | 0.97 | 0.93 | 1.09 | 1.05 | Other |
| Q6: Percent part-time is primary employment | 190 | 35.23 | 4.64 | 3.45 | 1.81 | 1.34 | Other |
| Q8: Percent part-time preferred full-time | 190 | 54.59 | 4.77 | 3.59 | 1.76 | 1.33 | Other |
| Q10: Percent with academic rank of professor | 550 | 15.83 | 1.69 | 1.56 | 1.17 | 1.08 | Other |
| Q12: Percent with tenure | 550 | 23.00 | 1.92 | 1.80 | 1.13 | 1.07 | Other |
| Q15: Percent nonunion union not available | 420 | 63.68 | 2.71 | 2.36 | 1.32 | 1.15 | Other |
| Q19A1: Percent with other job that is full-time | 550 | 19.15 | 1.94 | 1.68 | 1.33 | 1.15 | Other |
| Q35A1: Percent teaching a single credit class | 550 | 23.80 | 2.12 | 1.82 | 1.36 | 1.17 | Other |
| Q37F1: Percent with no TA in first class | 450 | 84.18 | 2.03 | 1.71 | 1.40 | 1.19 | Other |
| Q37C2: Percent meet > 3 hours for second class | 340 | 30.94 | 2.97 | 2.51 | 1.41 | 1.19 | Other |
| Q39: Percent with web site for instruction | 550 | 42.88 | 3.47 | 2.12 | 2.68 | 1.64 | Other |
| Q62A: Percent not "very satisfied" workload | 550 | 60.64 | 2.97 | 2.09 | 2.02 | 1.42 | Other |
| Q64: Percent retired from another position | 550 | 10.47 | 1.61 | 1.31 | 1.52 | 1.23 | Other |
| Q68: Percent paid by the course | 160 | 43.14 | 7.04 | 3.95 | 3.17 | 1.78 | Other |
| Q77: Percent marital status single | 550 | 11.98 | 1.96 | 1.39 | 2.00 | 1.41 | Other |
| Q77: Percent marital status married | 550 | 65.51 | 2.82 | 2.03 | 1.92 | 1.39 | Other |
| Q81: Percent United States citizen | 550 | 96.35 | 0.93 | 0.80 | 1.33 | 1.16 | Other |

${ }^{1}$ Numbers rounded to the nearest 10.
${ }^{2}$ Black includes African American; Asian/Pacific Islander includes Native Hawaiian; Hispanic includes Latino; and Other includes American Indian/Alaska Native and those who selected more than one race. Race categories exclude Hispanic origin unless specified.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table M-3. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by gender

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | Gender |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q1: Percent with instructional duties | 14,600 | 96.91 | 0.19 | 0.14 | 1.80 | 1.34 | Male |
| Q2: Percent with some credit instruction | 14,600 | 91.12 | 0.35 | 0.24 | 2.26 | 1.50 | Male |
| Q3: Percent who had faculty status | 14,600 | 93.46 | 0.30 | 0.20 | 2.09 | 1.45 | Male |
| Q4: Percent whose principal activity was research | 14,600 | 11.11 | 0.28 | 0.26 | 1.13 | 1.06 | Male |
| Q4: Percent whose principal activity was teaching | 14,600 | 72.48 | 0.40 | 0.37 | 1.15 | 1.07 | Male |
| Q6: Percent part-time is primary employment | 4,150 | 26.10 | 0.94 | 0.68 | 1.91 | 1.38 | Male |
| Q8: Percent part-time preferred full-time | 4,150 | 34.95 | 0.69 | 0.74 | 0.87 | 0.93 | Male |
| Q10: Percent with academic rank of professor | 14,600 | 23.66 | 0.43 | 0.35 | 1.52 | 1.23 | Male |
| Q12: Percent with tenure | 14,600 | 33.61 | 0.52 | 0.39 | 1.78 | 1.33 | Male |
| Q15: Percent nonunion union not available | 11,820 | 69.35 | 0.63 | 0.42 | 2.24 | 1.50 | Male |
| Q19A1: Percent with other job that is full-time | 14,600 | 22.85 | 0.43 | 0.35 | 1.52 | 1.23 | Male |
| Q35A1: Percent teaching a single credit class | 14,600 | 27.57 | 0.44 | 0.37 | 1.45 | 1.20 | Male |
| Q37C2: Percent meet > 3 hours for second class | 8,720 | 31.78 | 0.78 | 0.50 | 2.42 | 1.56 | Male |
| Q37F1: Percent with no TA in first class | 12,200 | 82.12 | 0.34 | 0.35 | 0.98 | 0.99 | Male |
| Q39: Percent with web site for instruction | 14,600 | 40.84 | 0.52 | 0.41 | 1.65 | 1.29 | Male |
| Q62A: Percent not "very satisfied" workload | 14,600 | 57.12 | 0.48 | 0.41 | 1.38 | 1.17 | Male |
| Q64: Percent retired from another position | 14,600 | 13.31 | 0.39 | 0.28 | 1.95 | 1.39 | Male |
| Q68: Percent paid by the course | 3,420 | 39.11 | 1.18 | 0.84 | 2.00 | 1.41 | Male |
| Q77: Percent marital status married | 14,600 | 78.60 | 0.44 | 0.34 | 1.70 | 1.30 | Male |
| Q77: Percent marital status single | 14,600 | 10.11 | 0.30 | 0.25 | 1.45 | 1.20 | Male |
| Q81: Percent United States citizen | 14,600 | 92.62 | 0.25 | 0.22 | 1.32 | 1.15 | Male |
| Q1: Percent with instructional duties | 11,510 | 97.09 | 0.15 | 0.16 | 0.95 | 0.97 | Female |
| Q2: Percent with some credit instruction | 11,510 | 88.96 | 0.47 | 0.29 | 2.54 | 1.59 | Female |
| Q3: Percent who had faculty status | 11,510 | 90.43 | 0.40 | 0.27 | 2.08 | 1.44 | Female |
| Q4: Percent whose principal activity was research | 11,510 | 5.71 | 0.20 | 0.22 | 0.90 | 0.95 | Female |
| Q4: Percent whose principal activity was teaching | 11,510 | 75.48 | 0.51 | 0.40 | 1.62 | 1.27 | Female |
| Q6: Percent part-time is primary employment | 4,210 | 42.82 | 1.01 | 0.76 | 1.76 | 1.33 | Female |
| Q8: Percent part-time preferred full-time | 4,210 | 34.54 | 0.92 | 0.73 | 1.57 | 1.25 | Female |
| Q10: Percent with academic rank of professor | 11,510 | 10.28 | 0.37 | 0.28 | 1.67 | 1.29 | Female |
| Q12: Percent with tenure | 11,510 | 20.52 | 0.45 | 0.38 | 1.41 | 1.19 | Female |
| Q15: Percent nonunion union not available | 9,070 | 68.43 | 0.75 | 0.49 | 2.35 | 1.53 | Female |
| Q19A1: Percent with other job that is full-time | 11,510 | 19.04 | 0.56 | 0.37 | 2.37 | 1.54 | Female |
| Q35A1: Percent teaching a single credit class | 11,510 | 26.62 | 0.53 | 0.41 | 1.63 | 1.28 | Female |
| Q37C2: Percent meet > 3 hours for second class | 6,560 | 31.08 | 0.87 | 0.57 | 2.32 | 1.52 | Female |
| Q37F1: Percent with no TA in first class | 9,260 | 88.90 | 0.45 | 0.33 | 1.86 | 1.36 | Female |
| Q39: Percent with web site for instruction | 11,510 | 38.29 | 0.66 | 0.45 | 2.10 | 1.45 | Female |
| Q62A: Percent not "very satisfied" workload | 11,510 | 58.24 | 0.51 | 0.46 | 1.25 | 1.12 | Female |
| Q64: Percent retired from another position | 11,510 | 9.44 | 0.35 | 0.27 | 1.61 | 1.27 | Female |
| Q68: Percent paid by the course | 3,330 | 34.33 | 1.19 | 0.82 | 2.10 | 1.45 | Female |
| Q77: Percent marital status married | 11,510 | 65.90 | 0.56 | 0.44 | 1.62 | 1.27 | Female |
| Q77: Percent marital status single | 11,510 | 13.43 | 0.36 | 0.32 | 1.30 | 1.14 | Female |
| Q81: Percent United States citizen | 11,510 | 95.11 | 0.28 | 0.20 | 1.89 | 1.38 | Female |

${ }^{1}$ Numbers rounded to the nearest 10.
NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Table M-4. Design effects (DEFFs) and root design effects (DEFT) for faculty statistics, by employment status

| Item | Number ${ }^{1}$ | Estimate | Standard error |  | DEFF | DEFT | Employmentstatus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Design | SRS |  |  |  |
| Q1: Percent with instructional duties | 17,750 | 96.24 | 0.19 | 0.14 | 1.72 | 1.31 | Full-time |
| Q2: Percent with some credit instruction | 17,750 | 90.91 | 0.26 | 0.22 | 1.50 | 1.22 | Full-time |
| Q3: Percent who had faculty status | 17,750 | 96.29 | 0.25 | 0.14 | 3.20 | 1.79 | Full-time |
| Q4: Percent whose principal activity was research | 17,750 | 14.33 | 0.27 | 0.26 | 1.06 | 1.03 | Full-time |
| Q4: Percent whose principal activity was teaching | 17,750 | 62.38 | 0.46 | 0.36 | 1.57 | 1.25 | Full-time |
| Q10: Percent with academic rank of professor | 17,750 | 28.52 | 0.53 | 0.34 | 2.48 | 1.58 | Full-time |
| Q12: Percent with tenure | 17,750 | 47.51 | 0.66 | 0.37 | 3.09 | 1.76 | Full-time |
| Q15: Percent nonunion union not available | 13,830 | 78.71 | 0.58 | 0.35 | 2.76 | 1.66 | Full-time |
| Q19A1: Percent with other job that is full-time | 17,750 | 1.85 | 0.12 | 0.10 | 1.41 | 1.19 | Full-time |
| Q35A1: Percent teaching a single credit class | 17,750 | 15.84 | 0.29 | 0.27 | 1.13 | 1.06 | Full-time |
| Q37C2: Percent meet > 3 hours for second class | 11,940 | 29.01 | 0.59 | 0.42 | 2.02 | 1.42 | Full-time |
| Q37F1: Percent with no TA in first class | 14,640 | 79.52 | 0.45 | 0.33 | 1.80 | 1.34 | Full-time |
| Q39: Percent with web site for instruction | 17,750 | 48.89 | 0.48 | 0.38 | 1.64 | 1.28 | Full-time |
| Q62A: Percent not "very satisfied" workload | 17,750 | 67.73 | 0.44 | 0.35 | 1.60 | 1.26 | Full-time |
| Q64: Percent retired from another position | 17,750 | 4.93 | 0.19 | 0.16 | 1.37 | 1.17 | Full-time |
| Q68: Percent paid by the course | 590 | 12.41 | 1.75 | 1.36 | 1.67 | 1.29 | Full-time |
| Q77: Percent marital status married | 17,750 | 73.71 | 0.41 | 0.33 | 1.56 | 1.25 | Full-time |
| Q77: Percent marital status single | 17,750 | 11.41 | 0.29 | 0.24 | 1.51 | 1.23 | Full-time |
| Q81: Percent United States citizen | 17,750 | 91.17 | 0.26 | 0.21 | 1.52 | 1.23 | Full-time |
| Q1: Percent with instructional duties | 8,360 | 97.94 | 0.21 | 0.16 | 1.85 | 1.36 | Part-time |
| Q2: Percent with some credit instruction | 8,360 | 89.28 | 0.59 | 0.34 | 3.08 | 1.76 | Part-time |
| Q3: Percent who had faculty status | 8,360 | 86.88 | 0.52 | 0.37 | 1.95 | 1.40 | Part-time |
| Q4: Percent whose principal activity was research | 8,360 | 1.71 | 0.19 | 0.14 | 1.75 | 1.32 | Part-time |
| Q4: Percent whose principal activity was teaching | 8,360 | 88.39 | 0.49 | 0.35 | 1.97 | 1.40 | Part-time |
| Q6: Percent part-time is primary employment | 8,360 | 34.12 | 0.62 | 0.52 | 1.43 | 1.20 | Part-time |
| Q8: Percent part-time preferred full-time | 8,360 | 34.75 | 0.58 | 0.52 | 1.22 | 1.11 | Part-time |
| Q10: Percent with academic rank of professor | 8,360 | 4.39 | 0.30 | 0.22 | 1.76 | 1.33 | Part-time |
| Q12: Percent with tenure | 8,360 | 3.00 | 0.23 | 0.19 | 1.57 | 1.25 | Part-time |
| Q15: Percent nonunion union not available | 7,050 | 57.52 | 0.78 | 0.59 | 1.76 | 1.33 | Part-time |
| Q19A1: Percent with other job that is full-time | 8,360 | 46.15 | 0.71 | 0.55 | 1.68 | 1.29 | Part-time |
| Q35A1: Percent teaching a single credit class | 8,360 | 41.73 | 0.65 | 0.54 | 1.46 | 1.21 | Part-time |
| Q37C2: Percent meet > 3 hours for second class | 3,340 | 36.93 | 1.27 | 0.83 | 2.30 | 1.52 | Part-time |
| Q37F1: Percent with no TA in first class | 6,810 | 92.00 | 0.42 | 0.33 | 1.67 | 1.29 | Part-time |
| Q39: Percent with web site for instruction | 8,360 | 28.00 | 0.75 | 0.49 | 2.34 | 1.53 | Part-time |
| Q62A: Percent not "very satisfied" workload | 8,360 | 44.56 | 0.59 | 0.54 | 1.17 | 1.08 | Part-time |
| Q64: Percent retired from another position | 8,360 | 20.33 | 0.57 | 0.44 | 1.68 | 1.30 | Part-time |
| Q68: Percent paid by the course | 6,150 | 38.52 | 1.02 | 0.62 | 2.72 | 1.65 | Part-time |
| Q77: Percent marital status married | 8,360 | 72.54 | 0.68 | 0.49 | 1.95 | 1.40 | Part-time |
| Q77: Percent marital status single | 8,360 | 11.66 | 0.51 | 0.35 | 2.13 | 1.46 | Part-time |
| Q81: Percent United States citizen | 8,360 | 96.91 | 0.24 | 0.19 | 1.60 | 1.27 | Part-time |

NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Appendix M. Design Effects


[^0]:    * Throughout this report, faculty and institution counts are rounded to the nearest 10 to protect the confidentiality of faculty and institutions. However, percentages cited are based on the original unrounded numbers.

[^1]:    ${ }^{1}$ RTI International is a trade name of Research Triangle Institute.
    ${ }^{2}$ References to "faculty" in this report include instructional staff and others (e.g., administrators) with faculty status (who may or may not have instructional duties).
    ${ }^{3}$ Throughout this report, faculty and institution counts are rounded to the nearest 10 to protect the confidentiality of faculty and institutions. However, percentages cited are based on the original unrounded numbers.

[^2]:    ${ }^{4}$ The larger NPSAS sample includes about 400 schools not eligible for NSOPF, including less-than-two-year and proprietary schools, and schools located in Puerto Rico. It also includes about 140 institutions that were NSOPFeligible but not included in the sample because the precision requirements for NSOPF could be met without their inclusion.

[^3]:    ${ }^{5}$ This was used as a preliminary estimate and was adjusted later.
    ${ }^{6}$ Postsecondary institutions which have signed Title IV federal student aid program participation agreements with the U.S. Department of Education.
    ${ }^{7}$ The Carnegie Classification is a taxonomy of colleges and universities in the United States according to such variables as degrees awarded, number of fields covered, and specialization.

[^4]:    ${ }^{8}$ More detailed information about the Carnegie classification can be found in appendix A.

[^5]:    ${ }^{9}$ A "facsimile" of the institution questionnaire-what the electronic instrument might have looked like if it was rendered as a hard-copy document-was included with the binder materials distributed to Institution Coordinators. However, this 12-page document was marked "informational copy only" and was not used for data collection.

[^6]:    ${ }^{10}$ One important element in this process was a consideration of recent literature in the field; for example, Developing the 2004 Faculty Survey: Themes from the Literature on Postsecondary Education, developed by the American Institutes for Research (Berger et al. 2002).
    ${ }^{11}$ Field test data collection for the institution questionnaire took place from September 2002 through June 2003; faculty/instructional staff field test data collection lasted from January 2003 through June 2003.

[^7]:    ${ }^{12}$ In addition to instrument development, IDADS also provides a reference system for instrument reviewers and testers and serves as the data documentation system for the data products developed.
    ${ }^{13}$ Active Server Pages (ASP) dynamically produce hypertext markup language (html) pages designed to facilitate information retrieval across the Internet. ASP code includes small embedded programs or scripts that are processed on a web server when accessed by users employing browser programs such as Netscape or Internet Explorer. Before responses are returned to a user, the request typically accesses databases and develops a customized response.
    ${ }^{14}$ Each data collection screen or form for the NSOPF:04 field test faculty instrumentation included a link to a page of "help text" prepared specifically for the item and including key definitions, descriptions of respondents to whom the item applied, and other useful information. In an attempt to shorten the administration time for the full-scale instrument, the help text was shortened and appeared on the same form as the question wording and response options. This reduced the need for loading a separate web page for help. A separate help text web page was available for the institution questionnaire for both the field test and full-scale versions of the instrument.

[^8]:    ${ }^{15}$ Efficiency for the NSOPF:04 instrument was gained by developing a shorter, tighter, and more focused interview that used state-of-the-art technology and design techniques. The sections and items were rearranged, coding procedures revised considerably to be interactive, skip patterns were employed, range checks were inserted, and other changes were implemented to make the instrument operate more efficiently.

[^9]:    ${ }^{16}$ The average time to complete each item is based on the time each respondent took to answer each item, as well as the time required to transmit the data collection image to the respondent and to transmit and write the information when the response was completed.

[^10]:    ${ }^{17}$ A persistent cookie is a piece of information, such as an IPEDS ID, that can be stored in a file on the user's computer. This information could then be used to identify a computer without the user even logging into the application.

[^11]:    ${ }^{18}$ One of the 25 organizations, associated with for-profit schools ineligible for NSOPF, was asked only for an endorsement for NPSAS.

[^12]:    ${ }^{19}$ Chief Administrators and Institution Coordinators used their institution IPEDS unit ID and a password to authenticate to the institution website. Faculty and instructional staff were assigned a study ID and password to authenticate to the faculty website.

[^13]:    ${ }^{20}$ RTI's Call Center Services provides telephone, web, and tracing services for a wide variety of projects, and operates two call centers: one in Raleigh, NC, and one in Greenville, NC.

[^14]:    ${ }^{21}$ Call Center hours were 9:00 a.m. to 11:00 p.m. Monday through Friday, 9:00 a.m. to 5:00 p.m. Saturday, 1:30 p.m. to 9:30 p.m. Sunday, Eastern Standard Time. The CMS was programmed to account for time zones such that respondents would not be called after 9:00 p.m. local time. Work numbers were only called 8:00 a.m. to 5:00 p.m. Monday through Friday, local time.

[^15]:    ${ }^{22}$ Ineligible institutions included institutions treated as mergers and reported for by other institutions, closed institutions, and institutions that did not meet eligibility requirements. Numbers of institutions are rounded to the nearest 10.

[^16]:    ${ }^{23}$ The average time excludes 28 cases with unexplained negative transit times. Some very short survey completion times may be attributed to institutions who answered a small subset of items in the questionnaire. Very long survey times may be the result of the respondent timing out repeatedly while in the questionnaire (e.g., answering the phone).

[^17]:    ${ }^{24}$ Nearly 77 percent of all refusals were made by sample members, while the remaining 23 percent were made by other household members or other contacts. Of the sample members who initially refused, 17 percent eventually completed an interview.
    ${ }^{25}$ The field test experimental design consisted of three randomly assigned early-response incentive groups who were offered $\$ 0, \$ 20$, or $\$ 30$ to complete the self-administered questionnaire over the Internet within 3 weeks of the initial mailing and two nonresponse incentive groups of $\$ 0$ and $\$ 30$ for those who had not completed the survey by a certain date during data collection. The early-response incentive yielded 31 and 34 percent response rates for the $\$ 20$ and $\$ 30$ incentives, respectively, compared with a 16 percent response rate for the control group. The nonresponse incentive yielded a 47 percent response rate for those offered $\$ 30$ and a 34 percent response rate for the control group. The differences between the treatment and the control groups were statistically significant for both phases of the experiment; however, the apparent difference in amounts (\$20 versus \$30) for the early-response incentive period, while in the expected direction, was not statistically significant.

[^18]:    ${ }^{26}$ Excludes the two highest outliers, both with transit times greater than 4 hours.

[^19]:    See notes at end of table.

[^20]:    See notes at end of table.

[^21]:    ${ }^{1}$ Numbers rounded to the nearest 10.
    NOTE: The number of cases per form varies due to the interview skip logic. Outliers for each form were topcoded (mean +3 standard deviations).
    SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

[^22]:    ${ }^{27}$ This figure includes cases where no call attempts were made, either because the respondent completed the questionnaire via the Web before CATI calling began, or the individual could not be located.

[^23]:    ${ }^{28}$ The items included in this analysis are listed in appendix K (Q1 through Q83). The number of items differs from the number of faculty items reported elsewhere in this document. For example, the difference between the number of analysis variables (162) and the number of items in the faculty questionnaire (183) occurs because some items in the faculty questionnaire were for internal use; similarly, there are fewer stochastically imputed variables (144) than analysis variables (162) because some variables had no missing data after logical imputations were performed. ${ }^{29}$ For questions where means were used, the unit of measurement, range of answers, and standard deviation was evaluated to determine which statistically significant differences to report.
    ${ }^{30}$ Footnotes are used to report differences in the 3 to 4 percent range since these could be seen as indicative of a substantively important difference.

[^24]:    ${ }^{31}$ Two measures showed differences at the 3 and 4 percent level. Web respondents ( 57 percent) were more likely to be male (Q71) than their CATI counterparts ( 53 percent, $z=5.58, p<0.001$ ), and web respondents ( 7 percent) were more likely to be Asian (Q74B) than their CATI counterparts ( 4 percent, $z=8.44, p<0.001$ ).
    ${ }^{32}$ Three measures showed differences at the 3 and 4 percent level. Web respondents were more likely to report administration as their primary activity (Q4: 9 percent versus 6 percent, $z=7.52, p<0.001$ ) and be an associate professor (Q10: 17 percent versus 13 percent, $z=7.54, p<0.001$ ). CATI respondents were more likely than web respondents to not report an academic title (or use the "other" category) (Q10: 23 percent versus 19 percent, $z=-6.92, p<0.001$ ).
    ${ }^{33}$ CATI respondents were more likely to have been employed in an elementary or secondary school prior to their current position (Q28: 20 percent versus 16 percent, $z=-7.37, p<0.001$ ).

[^25]:    ${ }^{34}$ Web respondents reported spending a greater percentage of their time each week on research (Q32C) compared to CATI respondents ( 15 percent versus 12 percent, $t=11.63, p<0.001$ ).
    ${ }^{35}$ Three items showed differences at the 4 percent level. Compared to web respondents, CATI respondents were more likely to report using multiple drafts of written work (Q38E: 43 percent versus 39 percent, $z=-4.48, p<0.001$ ), oral presentations by students (Q38F: 65 percent versus 61 percent, $z=-4.52, p<0.001$ ), and student evaluations of each other's work (Q38H: 41 percent versus 37 percent, $z=-4.52, p<0.001$ ).
    ${ }^{36}$ Two additional questions showed significant differences at the 3 and 4 percent level. CATI respondents were more likely than web respondents to report being somewhat or very satisfied with institutional support for technology based instructional activities (Q61B: 89 percent versus 85 percent, $z=-6.96, p<0.001$ ) and the benefits available to them (Q62C: 74 percent versus 71 percent, $z=-4.15, p<0.001$ ).

[^26]:    ${ }^{37}$ One additional question showed a significant difference at the 3 percent level. CATI respondents were more likely than web respondents to either somewhat or strongly agree that female faculty members are treated fairly (Q82: 91 percent versus 88 percent, $z=-6.04, p<0.001$ ).
    ${ }^{38}$ The abbreviated interview consisted of sections A (nature of employment), B (academic/professional background) and G (sociodemographic characteristics) of the faculty interview.
    ${ }^{39}$ Interviews that broke off after completing section C (workload) were considered partial completes. Of the 140 respondents who did so, 48 percent broke off in the scholarly activities section (D), 9 percent in the job satisfaction section (E), 29 percent in the compensation section (F), 11 percent in the characteristics section (G), and 4 percent in the opinions section (H).

[^27]:    ${ }^{40}$ The data for one monitoring session on April 20, 2004 (61 items observed) were removed from the analysis because the monitor did not follow proper procedure.

[^28]:    ${ }^{41}$ Gate variables are items that determine subsequent instrument routing. Nest variables are items that are asked or not asked, depending on the response to the gate question. For example, in the faculty questionnaire, Q1 (which asks whether the respondent had instructional duties) determines whether Q2 (which asks whether the respondent's instructional duties were related to credit courses/activities) is asked. Q1 is a gate item and Q2 is a nested item. Q2 is only asked if the response to Q1 was "yes."

[^29]:    ${ }^{42}$ Institutional type consisted of a cross-classification of control (public verses private not-for-profit) and degree type (doctoral, master's, baccalaureate, associate's, and other).
    ${ }^{43}$ Faculty type (stratum) is based on faculty demographics, such as gender, race/ethnicity, and employment status.

[^30]:    See notes at end of table.

[^31]:    ${ }^{44}$ Note that here separate sets of nonresponse and poststratification adjustment factors (WT3 and WT4) were constructed for each institution as compared to those calculated above, since the set of institutions providing faculty lists was not the same as that responding to the institution questionnaire.

[^32]:    ${ }^{45}$ The NSOPF:04 sample of institutions was selected using probabilities proportional to the number of faculty and instructional staff in each institution. Consequently, calculation of the analysis weights included multiplication of sampling weights (adjusted for multiplicity) by the faculty counts within each of the sampling strata. This means that a subset of institutions-particularly those that had small sampling weights, such as certainty institutions, could end up with weights that are less than one.

[^33]:    ${ }^{46}$ This means that the sum of the weights for all 26,110 respondents, which includes the 560 non-faculty members, is $1,211,744=1,185,661+26,083$.

[^34]:    ${ }^{47}$ Please note that DAS uses Taylor linearization approach for variance estimation and calculation of DEFF and DEFT.

[^35]:    ${ }^{1}$ This number reflects the total number of eligible respondents for each item, rounded to the nearest 10. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

[^36]:    ${ }^{48}$ The design effect (DEFF) is the variance estimate of an estimated parameter under the survey design divided by the variance estimate of an estimated parameter for a simple random sample of the same size.
    ${ }^{49}$ The root design effect (DEFT) is the square root of the design effect (DEFF).

[^37]:    ${ }^{1}$ It should be noted that since the institution samples for both National Study of Postsecondary Faculty (NSOPF:04) and National Postsecondary Student Aid Survey (NPSAS:04) surveys were selected jointly, the MOS for each institution was calculated to reflect the number of students in each institution as well.
    ${ }^{2}$ Note that the universe count of 3,379 does not reflect the two institutions that were added after sample selection to refresh the sample.

[^38]:    ${ }^{3}$ Institutions not in-scope for imputation for the Fall Staff Survey of IPEDS included those that were child institutions or had less than 15 full-time employees.

[^39]:    ${ }^{4}$ http://www.nsf.gov/statistics/srvydoctorates/

[^40]:    Enclosures

[^41]:    NSoFaS
    Endorsed by
    American Association for Higher Education

    American Association of Collegiate Registrars and Admissions Officers

    American Association of Community Colleges
    American Association of State Colleges and Universities

    American Association of University Professors

    American Council on Education

    American Federation of Teachers

    Association for Institutional Research

    Association of American Colleges and Universities

    Association of Catholic Colleges and Universities

    Career College Association
    The Carnegie Foundation for the Advancement of Teaching

    College and University Professional Association for Human Resources

    The College Board
    The College Fund/UNCF
    Council of Graduate Schools
    The Council of Independent Colleges
    Hispanic Association of Colleges and Universities

    National Accrediting Commission of Cosmetology Arts and Sciences

    National Association of College and University Business Officers

    National Association for Equal Opportunity in Higher Education

    National Association of Independent Colleges and Universities

    National Association of State Universities and
    Land-Grant Colleges
    National Association of Student Financial Aid Administrators

    National Education Association

[^42]:    ${ }^{1}$ Your unique and secure Integrated Postsecondary Education Data System (IPEDS) UNITID and password are printed on the letter accompanying this material or they may be obtained by contacting the Help Desk at 1-866-NSOFAS4 (1-866-676-3274).

[^43]:    Check here if your institution does not award institution grants or scholarships. Then click on the Continue button below.

[^44]:    ${ }^{1}$ Note that your institution's name and Integrated Postsecondary Education Data System (IPEDS) UNITID are printed on the letter that accompanies this material.

[^45]:    See notes at end of table.

[^46]:    See notes at end of table

[^47]:    See notes at end of table.

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[^49]:    See notes at end of table.

[^50]:    See notes at end of table.

[^51]:    See notes at end of table.

[^52]:    See notes at end of table.

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