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Background Characteristics, Work Activities, and Compensation of Instructional Faculty and Staff: Fall 2003

E.D. TAB

December 2005

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Foreword

This E.D. TAB is the second publication based on the 2004 National Study of Postsecondary Faculty (NSOPF:04). NSOPF:04 includes faculty and instructional staff who were employed in 2- and 4-year degree-granting institutions in the United States in the fall of 2003. The first E.D. TAB (Cataldi, Fahimi, and Bradburn 2005) covered the entire population of faculty and instructional staff in NSOPF:04, including faculty with no instructional responsibilities for credit in fall 2003. This E.D. TAB, however, includes only faculty and staff who had instructional responsibilities in fall 2003, and details their demographic characteristics, faculty status, instructional activities, and compensation by employment status, institution type, and program area.

NSOPF:04 is the fourth in a series of data collections on postsecondary faculty conducted by the National Center for Education Statistics (NCES). The first was conducted in 1987–88, the second in 1992–93, and the third in 1998–99. Readers should consult appendix B of this E.D. TAB for more technical information about NSOPF:04.

The estimates presented in this E.D. TAB were produced using the NCES Data Analysis System (DAS), a web-based table-generating application that provides the public with direct, free access to NSOPF data as well as other postsecondary datasets collected by NCES. The DAS produces the design-adjusted standard errors necessary for testing the statistical significance of differences in the estimates (all differences reported in the text are statistically significant at the .05 level). Public-access data files and descriptive reports for this and other postsecondary datasets collected by NCES are available at <http://nces.ed.gov/DAS>.

Acknowledgments

We would like to acknowledge the support of many individuals in the production of the 2004 National Study of Postsecondary Faculty (NSOPF:04) and this E.D. TAB based on its data. NSOPF:04 was conducted by RTI International and MPR Associates for the National Center for Education Statistics (NCES). At RTI International, Margaret Cahalan, who was succeeded by Patricia Green, served as project director for NSOPF:04. Also at RTI, Ruth Heuer and Thomas R. Curtin conducted extensive work on instrumentation and preparation of data files; Kimberly Ault and Darryl Creel conducted sampling, weighting, and imputation analyses; Lisa Carly-Baxter managed faculty telephone interviews; Marjorie Hinsdale-Shouse managed data collection; Donna Jewell managed data collection and processing procedures; and Brian Kuhr oversaw institutional contacting and response. We appreciate the hard work of many interviewers and others at RTI too numerous to mention, and the faculty and instructional staff who took the time to complete NSOPF:04.

At MPR, Stephanie Nevill and Joanna Wu, with assistance from Stephen Lew, were responsible for programming and documenting the derived variables. Vicky Dinger prepared and created the Data Analysis System files with support from Joanna Wu and Terence Lew. John Vavricka oversaw the web publication process. Barbara Kridl, Patti Gildersleeve, and Annabelle Yang prepared this E.D. TAB for publication.

At NCES, Linda Zimbler made significant improvements through her careful oversight of every phase of the project. Additional substantive and technical reviews of this E.D. TAB were conducted at NCES by Paula Knepper, Marilyn Seastrom, Dennis Carroll, James Griffith, and Tracy Hunt-White.

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Introduction

This second E.D. TAB based on the 2004 National Study of Postsecondary Faculty (NSOPF:04) describes instructional faculty and staff in public and private not-for-profit postsecondary institutions that offered an associate's or higher degree. The demographic characteristics, work activities, and compensation of instructional faculty and staff in fall 2003 are presented by employment status, institution type, and program area.¹ Tables are presented in the next section, a glossary of variables is available in appendix A, and information about NSOPF:04 data may be found in appendix B.

NSOPF:04 is the fourth in a series of data collections describing postsecondary faculty and instructional staff at 2- and 4-year degree-granting institutions. Previous administrations of NSOPF took place in 1987–88, 1992–93, and 1998–99. NSOPF:04 is based on survey data collected from a nationally representative sample of about 35,000 faculty and instructional staff, using a web-based questionnaire that was either self-administered or conducted via telephone with a trained interviewer. About 26,100 faculty and instructional staff completed interviews, resulting in a weighted response rate for the faculty component of 76 percent.² The survey respondents represent an estimated 1.2 million faculty and instructional staff in the 50 states and the District of Columbia. The population of faculty and instructional staff included instructional faculty, staff with instructional responsibilities, and faculty with no instructional responsibilities. Tables in this E.D. TAB, however, are restricted to *instructional faculty and staff*—that is, faculty and staff with instructional responsibilities that are associated with students earning credit, which could include teaching one or more classes for credit or advising or supervising students' for-credit academic activities. In fact, instructional faculty and staff represented about 90 percent of all faculty and instructional staff in the fall of 2003.³ All comparisons made in the text were tested using Student's *t* statistic, and all differences cited were statistically significant at the .05 level. For more information about the methodology of NSOPF:04, see appendix B.

¹ See the glossary (appendix A) for detailed descriptions of the teaching disciplines included in each program area and details about institution type, which is derived from the 2000 Carnegie Classification.

² See the technical notes for more information on response rates and nonresponse bias analysis.

³ For convenience, the terms “faculty” and “instructional faculty and staff” are used interchangeably hereafter.

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Selected Results

- The majority (57 percent) of instructional faculty and staff were employed full time in fall 2003 (table 1).
- Instructional faculty and staff who were employed in public doctoral institutions were more likely to work full time (78 percent) than those employed in private not-for-profit doctoral (68 percent), public master's and private not-for-profit baccalaureate (63 percent each), private not-for-profit master's (45 percent), public associate's (36 percent), and other types of institutions (50 percent; table 1).
- Employment status varied by program area at 4-year institutions. About three-fourths of instructional faculty and staff who worked in the fields of engineering (79 percent), agriculture/home economics, or the natural sciences (77 percent each) were employed full time, compared with 50–70 percent of those employed in business, education, fine arts, health sciences, humanities, social sciences, and all other fields (table 1).
- Full-time instructional faculty and staff in all institutions averaged 50 years of age in fall 2003. The largest proportion of full-time faculty (32 percent) fell between the ages of 45 and 54, compared with 8 percent who were under 35, some 24 percent who were 35–44, another 28 percent who were 55–64, 5 percent who were 65–70, and 1 percent who were 71 or older (table 2).
- In fall 2003, part-time instructional faculty and staff were more likely to be under age 35 than their full-time peers; 12 percent of part-time faculty (table 3) were under 35 compared with 8 percent of full-time faculty (table 2). Part-time instructional faculty and staff were also more likely than their full-time counterparts to be age 65 or older in fall 2003.
- Doctoral institutions were more likely than other types of institutions to employ Asian/Pacific Islander faculty full time (table 4). Eleven percent of public and private not-for-profit doctoral instructional faculty and staff were Asian/Pacific Islander compared with 3–7 percent at other types of institutions.
- Engineering programs in 4-year institutions were more likely to have full-time Asian/Pacific Islander faculty than were other program areas (table 4). About one-fifth (21 percent) of full-time instructional faculty and staff in engineering were Asian/Pacific Islander in fall 2003 compared with 3–14 percent of Asian/Pacific Islander faculty in other program areas.
- Institutions offering baccalaureate degrees or lower as their highest degree were more likely to employ Black instructional faculty and staff part time than doctoral and private not-for-profit master's institutions (table 5). Seven percent of the part-time instructional faculty and staff at private not-for-profit baccalaureate, public associate's, and other institutions were Black compared with 3–4 percent of their peers in public and private not-for-profit doctoral and private not-for-profit master's institutions.

- The largest proportion of full-time instructional faculty and staff who were female were employed in public associate's institutions (49 percent) compared with 31–43 percent in other types of institutions (table 6).
- Women made up a larger proportion of part-time than full-time instructional faculty and staff (47 percent [table 7] vs. 38 percent [table 6]).
- Ninety-two percent of full-time instructional faculty and staff were U.S. citizens in fall 2003 and 8 percent were noncitizens (table 8). Engineering and natural sciences faculty at 4-year institutions were more likely than instructional faculty and staff in other program areas to be noncitizens; 16 percent of natural sciences faculty and 17 percent of engineering faculty were noncitizens, compared with 4–10 percent of faculty in other program areas.
- Part-time instructional faculty and staff were more likely to be citizens (97 percent; table 9) than were full-time faculty (92 percent; table 8).
- Full-time instructional faculty and staff at public associate's institutions were more likely to be instructors or lecturers (39 percent) than faculty at other institution types (8–12 percent; table 10). Full-time faculty at private not-for-profit doctoral institutions were more likely to be full professors than their peers at public and private not-for-profit master's, private not-for-profit baccalaureate, public associate's, and other institution types (35 percent vs. 21–31 percent, respectively).
- Five percent of part-time instructional faculty and staff were full professors, 3 percent were associate professors, and 3 percent were assistant professors. However, 42 percent of part-time faculty were instructors or lecturers, and 47 percent were some other rank or indicated that academic ranks were not applicable to them (table 11).
- About one-half (49 percent) of full-time instructional faculty and staff held tenure in fall 2003, about one-fifth (21 percent) were on the tenure track, another one-fifth were not on the tenure track (21 percent), and about one-tenth were employed at institutions that did not have tenure systems (table 12).
- Three percent of part-time instructional faculty and staff were tenured in fall 2003 (table 13) compared with 49 percent of their counterparts who were employed full time (table 12). Conversely, 87 percent of part-time instructional faculty and staff were not on the tenure track (table 13).
- The highest degree attained by a majority of full-time instructional faculty and staff at public associate's institutions was a master's degree: 63 percent held master's degrees, 19 percent had doctoral or first-professional degrees, and 18 percent had a bachelor's degree or less (table 14).
- Instructional faculty and staff who were employed part time were less likely than full-time faculty to have earned a doctoral or first-professional degree. One-fourth of part-time instructional faculty and staff (table 15) held doctoral or professional degrees, compared with 68 percent of full-time faculty (table 14). Over one-half of part-time faculty had master's degrees and 21 percent had attained a bachelor's degree or less, compared with 27 percent of full-time faculty with master's degrees and 6 percent with bachelor's degrees or less.

- Forty-nine percent of full-time instructional faculty and staff in public and 52 percent in private not-for-profit doctoral institutions considered teaching their primary activity compared with 79–85 percent of their peers in other institution types (table 16).
- At 4-year institutions, both full- and part-time instructional faculty and staff in the health sciences were less likely than their peers in other program areas to consider teaching their primary activity. Thirty-seven percent of full-time (table 16) and 60 percent of part-time health sciences faculty (table 17) identified teaching as their primary activity compared with 49–83 percent of full-time faculty and 85–97 percent of part-time faculty in other program areas.
- Full-time instructional faculty and staff, overall, reported working an average of 53 hours each week at all jobs both within and outside the institution, and part-time faculty (i.e., those who worked part time at the sampled institution but could have other full- or part-time employment elsewhere) averaged 40 hours per week; full-time faculty in 4-year institutions averaged 54 hours and part-time faculty averaged 41 hours per week⁴ (table 18).
- Full-time fine arts faculty in 4-year institutions reported spending a higher percentage of time on teaching activities than their peers in other program areas (table 19). Fine arts faculty spent an average of two-thirds of their time on teaching activities compared with faculty in other program areas who reported spending an average of 49–65 percent of their time on teaching activities.
- Part-time instructional faculty and staff reported on average spending the majority of their time at the institution (90 percent) on teaching activities (table 20). Work hours that part-time faculty spend elsewhere may include other activities besides teaching, such as research or professional service.
- Full-time instructional faculty and staff who taught for-credit classes averaged 11 classroom hours per week in fall 2003, for a total of 308 weekly student contact hours⁵ (table 21).
- Full-time faculty at public associate's institutions spent more time in the classroom (18 hours per week) and averaged more student contact hours (431 hours per week) than their peers at other types of institutions (8–12 classroom hours and 223–294 student contact hours per week; table 21). Part-time instructional faculty and staff averaged 8 classroom hours and 180 student contact hours per week in fall 2003 (table 22).
- Full-time engineering and natural sciences faculty at 4-year institutions reported more refereed or juried publications in the past 2 years than those in other disciplines (table 23). Engineering and natural sciences faculty averaged 4 publications of this type compared with an average of 1–3 publications for faculty in other program areas.

⁴ Respondents were asked to report the average number of hours they worked per week at paid and unpaid work at the sampled institution and paid and unpaid work outside of the institution. Therefore, although the respondents were considered part-time employees at the sampled institution, they could have worked more total hours per week with other jobs and unpaid hours taken into account.

⁵ Eighty-nine percent of full-time and part-time instructional faculty and staff taught for-credit classes. Student contact hours are defined as the number of hours per week spent teaching for-credit classes multiplied by the number of students in those classes.

- Part-time faculty, overall, averaged less than one refereed publication and one nonrefereed publication in the past 2 years, and they averaged four presentations in that time frame (table 24).
- The average basic salary from the institution for full-time instructional faculty and staff in all types of institutions was \$66,800 (table 25). This estimate is consistent with the average basic salary figure of \$66,475 for academic year 2003–04 reported by the American Association of University Professors (AAUP 2004).
- Full-time instructional faculty and staff employed in private not-for-profit doctoral institutions averaged \$108,100 in total earnings⁶ from the institution and outside sources in 2003, compared with \$64,000–91,700 earned by their counterparts in other types of institutions (table 25). In fact, instructional faculty and staff employed full time at private not-for-profit doctoral institutions generally had the highest income in all categories.
- Part-time instructional faculty and staff employed at 4-year institutions in the humanities had lower total earned income from all sources compared with many other program areas (table 26). Instructional faculty and staff employed in the humanities earned \$38,200 in 2003, compared with \$55,100–81,300 earned by their peers in all other program areas, except agriculture and fine arts.
- Among instructional faculty and staff who earned income from their institution other than their basic salary,⁷ the average amount earned in 2003 was \$9,800 for full-time faculty and \$6,000 for part-time faculty (table 27). Full-time engineering and health sciences faculty averaged higher incomes of this type than did faculty in other disciplines (\$15,300–16,000 vs. \$5,800–12,600).
- Among faculty who earned consulting income in 2003,⁸ those who worked full time averaged \$7,300 and those who worked part time averaged \$11,300 (table 28). Part-time faculty at 4-year institutions in business averaged \$17,200 in 2003, more than those in fine arts (\$11,300), natural sciences (\$10,800), education (\$6,900), and humanities (\$5,400).
- Part-time instructional faculty and staff averaged \$44,800 in outside income other than consulting income in 2003 compared with \$12,400 earned by full-time faculty (table 29).⁹ Those in private not-for-profit doctoral institutions averaged the highest outside income (\$62,100) compared with those in other institution types (\$38,600–51,300).

⁶ Total earnings are the sum of basic salary and other income from the institution, outside consulting income, and other outside income reported in 2003.

⁷ Fifty-two percent of full-time and 15 percent of part-time instructional faculty and staff earned income from their institution other than their basic salary.

⁸ Thirty percent of full-time and 27 percent of part-time instructional faculty and staff earned consulting income in 2003.

⁹ Fifty-three percent of full-time and 85 percent of part-time instructional faculty and staff earned outside income other than consulting income in 2003.

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Tables

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Table 1. Percentage distribution of instructional faculty and staff, by employment status, institution type, and program area: Fall 2003

Institution type and program area	Employment status	
	Full time	Part time
All institutions ¹	56.7	43.3
Public doctoral ²	77.7	22.3
Private not-for-profit doctoral ²	68.1	31.9
Public master's	63.1	36.9
Private not-for-profit master's	44.9	55.1
Private not-for-profit baccalaureate	63.2	36.8
Public associate's	35.7	64.3
Other ³	49.6	50.4
All program areas in 4-year institutions	65.4	34.6
Agriculture/home economics	77.3	22.7
Business	53.5	46.5
Education	50.4	49.6
Engineering	78.8	21.2
Fine arts	53.5	46.5
Health sciences	69.6	30.4
Humanities	65.8	34.2
Natural sciences	76.6	23.5
Social sciences	69.7	30.3
All other fields	61.5	38.6

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 2. Average age and percentage distribution of full-time instructional faculty and staff, by institution type and program area: Fall 2003

Institution type and program area	Average age	Percentage in each age category					71 or older
		Under 35	35–44	45–54	55–64	65–70	
All institutions ¹	49.6	8.2	24.5	32.5	28.5	5.1	1.3
Public doctoral ²	49.3	8.3	25.9	32.7	26.8	5.2	1.1
Private not-for-profit doctoral ²	49.7	8.4	26.2	31.3	25.3	6.2	2.8
Public master's	50.2	8.0	23.2	30.7	31.1	5.8	1.2
Private not-for-profit master's	50.1	8.3	23.8	30.8	30.5	5.2	1.5
Private not-for-profit baccalaureate	48.3	12.1	25.4	29.7	27.2	4.5	1.1
Public associate's	49.9	7.0	22.2	34.4	31.7	4.0	0.7
Other ³	49.8	6.1	23.0	37.3	28.1	4.6	0.8
All program areas in 4-year institutions	49.5	8.4	25.0	32.1	27.8	5.4	1.4
Agriculture/home economics	50.1	6.3	20.0	41.2	29.3	2.4	0.9
Business	50.0	5.6	23.1	35.9	29.3	5.0	1.2
Education	51.4	8.2	16.8	31.1	36.7	5.8	1.4
Engineering	49.1	9.1	26.5	32.4	24.2	5.2	2.6
Fine arts	49.4	7.3	22.9	36.5	28.8	3.8	0.8
Health sciences	48.7	7.0	28.5	35.6	24.4	3.4	1.1
Humanities	49.6	9.5	26.3	27.2	29.2	6.1	1.6
Natural sciences	49.5	7.9	27.1	31.7	25.0	6.4	1.8
Social sciences	49.1	10.6	25.9	28.2	28.4	6.0	0.9
All other fields	49.5	10.0	22.1	32.3	28.6	5.7	1.3

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 3. Average age and percentage distribution of part-time instructional faculty and staff, by institution type and program area: Fall 2003

Institution type and program area	Average age	Percentage in each age category					
		Under 35	35–44	45–54	55–64	65–70	71 or older
All institutions ¹	49.6	12.3	22.0	30.2	24.5	7.0	4.0
Public doctoral ²	48.7	14.9	22.1	31.7	20.5	6.7	4.1
Private not-for-profit doctoral ²	50.3	11.2	22.7	28.5	23.4	8.3	5.9
Public master's	49.6	14.0	22.2	24.8	26.3	8.6	4.2
Private not-for-profit master's	51.2	9.5	18.6	32.6	26.0	9.0	4.4
Private not-for-profit baccalaureate	49.4	12.4	23.9	29.6	22.8	6.8	4.5
Public associate's	49.2	12.3	22.5	30.4	25.3	5.9	3.6
Other ³	50.0	10.4	21.8	32.4	24.1	7.8	3.5
All program areas in 4-year institutions	49.2	12.2	21.6	30.0	23.9	7.8	4.4
Agriculture/home economics	49.7	17.1	16.5	24.7	38.1	3.6	#
Business	50.6	7.4	20.5	31.7	29.0	7.1	4.3
Education	50.5	7.3	15.5	28.5	30.3	14.2	4.3
Engineering	50.9	3.9	29.8	27.5	17.8	11.2	9.7
Fine arts	48.0	15.6	23.1	34.5	19.6	3.8	3.5
Health sciences	46.7	10.9	23.6	35.9	18.3	6.8	4.4
Humanities	50.9	17.6	22.7	27.6	20.1	5.7	6.3
Natural sciences	50.0	14.0	22.9	25.4	24.4	8.9	4.4
Social sciences	49.2	15.9	20.4	23.6	28.7	8.2	3.2
All other fields	47.3	11.0	23.5	33.9	21.7	6.5	3.6

Rounds to zero.

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 4. Percentage distribution of full-time instructional faculty and staff, by race/ethnicity, institution type, and program area: Fall 2003

Institution type and program area	Race/ethnicity ¹				
	White	Black	Asian/Pacific Islander	Hispanic	Other
All institutions ²	80.8	5.5	8.1	3.5	2.1
Public doctoral ³	79.4	4.3	11.3	3.1	2.0
Private not-for-profit doctoral ³	79.1	4.7	11.4	3.0	1.8
Public master's	78.3	8.4	7.1	3.6	2.5
Private not-for-profit master's	85.5	4.6	5.5	2.5	2.0
Private not-for-profit baccalaureate	85.8	6.5	3.5	2.2	2.0
Public associate's	81.2	6.7	3.9	5.7	2.5
Other ⁴	86.9	4.2	5.7	1.8	1.5
All program areas in 4-year institutions	80.8	5.3	9.0	3.0	2.0
Agriculture/home economics	87.4	2.3	6.2	3.0	1.1
Business	76.8	4.3	14.0	1.7	3.2
Education	83.5	6.8	3.8	3.2	2.8
Engineering	70.0	4.7	21.1	2.4	1.8
Fine arts	87.6	6.0	2.9	2.3	1.2
Health sciences	79.0	4.5	11.2	2.9	2.5
Humanities	82.9	4.8	5.4	4.5	2.4
Natural sciences	78.4	3.6	14.2	2.4	1.4
Social sciences	81.5	7.6	5.2	3.8	1.9
All other fields	84.6	7.6	3.4	2.5	1.9

¹ 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.

² All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

³ Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

⁴ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 5. Percentage distribution of part-time instructional faculty and staff, by race/ethnicity, institution type, and program area: Fall 2003

Institution type and program area	Race/ethnicity ¹				
	White	Black	Asian/Pacific Islander	Hispanic	Other
All institutions ²	85.3	5.6	3.6	3.4	2.2
Public doctoral ³	83.7	3.2	7.5	3.8	1.8
Private not-for-profit doctoral ³	88.5	3.9	4.5	2.5	0.6
Public master's	86.9	4.8	2.7	3.2	2.4
Private not-for-profit master's	89.9	3.5	2.0	2.6	2.0
Private not-for-profit baccalaureate	87.4	7.3	2.6	1.5	1.2
Public associate's	83.8	6.8	2.9	4.2	2.4
Other ⁴	83.2	7.1	4.3	2.3	3.2
All program areas in 4-year institutions	86.5	4.6	4.1	2.8	1.9
Agriculture/home economics	87.6	5.1	#	#	7.3
Business	89.2	5.1	2.8	1.2	1.8
Education	89.0	4.4	1.3	3.8	1.5
Engineering	82.3	2.0	11.1	1.4	3.2
Fine arts	89.3	3.1	1.9	2.6	3.1
Health sciences	84.8	2.8	9.2	1.9	1.2
Humanities	85.3	4.4	3.8	4.8	1.8
Natural sciences	85.3	3.6	8.1	2.0	1.0
Social sciences	84.5	6.2	3.1	2.9	3.4
All other fields	85.4	7.8	2.1	3.3	1.4

Rounds to zero.

¹ 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.

² All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

³ Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

⁴ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 6. Percentage distribution of full-time instructional faculty and staff, by gender, institution type, and program area: Fall 2003

Institution type and program area	Gender	
	Male	Female
All institutions ¹	61.9	38.1
Public doctoral ²	68.4	31.6
Private not-for-profit doctoral ²	69.0	31.1
Public master's	59.2	40.9
Private not-for-profit master's	57.1	42.9
Private not-for-profit baccalaureate	59.3	40.7
Public associate's	51.3	48.7
Other ³	58.3	41.7
All program areas in 4-year institutions	64.4	35.6
Agriculture/home economics	64.7	35.3
Business	72.9	27.1
Education	41.2	58.8
Engineering	91.2	8.8
Fine arts	63.1	36.9
Health sciences	50.3	49.8
Humanities	59.6	40.4
Natural sciences	77.6	22.4
Social sciences	65.0	35.0
All other fields	58.6	41.4

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 7. Percentage distribution of part-time instructional faculty and staff, by gender, institution type, and program area: Fall 2003

Institution type and program area	Gender	
	Male	Female
All institutions ¹	52.9	47.1
Public doctoral ²	50.3	49.7
Private not-for-profit doctoral ²	58.8	41.2
Public master's	51.1	48.9
Private not-for-profit master's	53.7	46.3
Private not-for-profit baccalaureate	50.9	49.1
Public associate's	52.3	47.7
Other ³	57.7	42.3
All program areas in 4-year institutions	53.4	46.7
Agriculture/home economics	34.9	65.1
Business	74.7	25.3
Education	34.5	65.5
Engineering	91.1	8.9
Fine arts	52.4	47.6
Health sciences	39.0	61.0
Humanities	44.3	55.7
Natural sciences	62.0	38.0
Social sciences	59.4	40.6
All other fields	59.1	40.9

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 8. Percentage distribution of full-time instructional faculty and staff, by U.S. citizenship status, institution type, and program area: Fall 2003

Institution type and program area	Citizenship status	
	Citizen	Noncitizen
All institutions ¹	91.8	8.2
Public doctoral ²	88.2	11.8
Private not-for-profit doctoral ²	85.9	14.1
Public master's	93.1	6.9
Private not-for-profit master's	95.3	4.7
Private not-for-profit baccalaureate	94.4	5.6
Public associate's	98.5	1.5
Other ³	95.0	5.0
All program areas in 4-year institutions	90.3	9.7
Agriculture/home economics	94.7	5.3
Business	90.5	9.5
Education	96.3	3.7
Engineering	83.3	16.7
Fine arts	93.4	6.6
Health sciences	93.3	6.7
Humanities	90.3	9.7
Natural sciences	83.5	16.5
Social sciences	91.7	8.3
All other fields	95.4	4.7

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 9. Percentage distribution of part-time instructional faculty and staff, by U.S. citizenship status, institution type, and program area: Fall 2003

Institution type and program area	Citizenship status	
	Citizen	Noncitizen
All institutions ¹	97.0	3.0
Public doctoral ²	94.9	5.1
Private not-for-profit doctoral ²	95.0	5.1
Public master's	96.9	3.1
Private not-for-profit master's	98.1	1.9
Private not-for-profit baccalaureate	97.6	2.4
Public associate's	97.9	2.1
Other ³	95.0	5.0
All program areas in 4-year institutions	96.2	3.8
Agriculture/home economics	100.0	#
Business	97.5	2.5
Education	98.1	1.9
Engineering	92.0	8.0
Fine arts	97.8	2.2
Health sciences	97.6	2.4
Humanities	91.7	8.3
Natural sciences	94.5	5.5
Social sciences	94.5	5.5
All other fields	98.6	1.4

Rounds to zero.

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 10. Percentage distribution of full-time instructional faculty and staff, by academic rank, institution type, and program area: Fall 2003

Institution type and program area	Academic rank				Other ranks/ not applicable
	Full professor	Associate professor	Assistant professor	Instructor or lecturer	
All institutions ¹	29.5	22.4	23.1	15.6	9.3
Public doctoral ²	33.4	25.4	24.1	10.4	6.8
Private not-for-profit doctoral ²	34.6	25.5	24.7	9.3	6.0
Public master's	31.1	23.2	28.6	12.4	4.7
Private not-for-profit master's	24.9	27.4	32.8	8.4	6.5
Private not-for-profit baccalaureate	28.8	24.6	29.9	8.1	8.7
Public associate's	21.5	11.3	10.2	39.5	17.5
Other ³	23.9	23.3	21.1	10.7	21.1
All program areas in 4-year institutions	31.3	25.0	26.0	10.3	7.4
Agriculture/home economics	35.3	25.3	20.5	8.6	10.3
Business	30.6	26.3	27.1	11.3	4.8
Education	23.8	21.6	28.4	11.1	15.1
Engineering	40.3	27.9	21.6	5.6	4.7
Fine arts	28.0	26.0	25.2	10.6	10.3
Health sciences	22.6	25.8	34.7	11.8	5.1
Humanities	31.2	22.7	25.8	14.2	6.2
Natural sciences	37.1	26.4	23.3	7.6	5.7
Social sciences	37.3	24.5	27.0	4.8	6.4
All other fields	27.1	24.4	21.5	15.6	11.4

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Academic rank was collected differently in NSOPF:04 compared with previous NSOPF cycles. Respondents with another unspecified rank were no longer allowed to specify their other rank. 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 11. Percentage distribution of part-time instructional faculty and staff, by academic rank, institution type, and program area: Fall 2003

Institution type and program area	Academic rank				Other ranks/ not applicable
	Full professor	Associate professor	Assistant professor	Instructor or lecturer	
All institutions ¹	4.6	2.9	3.4	42.2	46.9
Public doctoral ²	6.3	4.5	8.1	45.0	36.0
Private not-for-profit doctoral ²	5.6	4.9	9.1	31.9	48.6
Public master's	6.4	2.3	2.0	40.7	48.7
Private not-for-profit master's	2.7	3.4	2.7	30.3	60.9
Private not-for-profit baccalaureate	4.6	4.2	5.5	32.5	53.3
Public associate's	3.4	1.5	1.0	49.5	44.6
Other ³	7.1	4.9	5.2	33.3	49.4
All program areas in 4-year institutions	5.4	3.9	5.3	36.5	48.8
Agriculture/home economics	8.1	2.9	2.4	49.9	36.7
Business	6.2	3.0	2.2	30.2	58.4
Education	4.1	2.2	3.1	34.8	55.9
Engineering	6.3	7.3	3.6	35.8	47.1
Fine arts	4.0	4.0	4.6	40.5	46.9
Health sciences	7.7	9.5	21.2	33.5	28.2
Humanities	5.0	2.3	2.6	43.9	46.3
Natural sciences	5.8	4.6	3.7	36.7	49.3
Social sciences	6.2	3.8	5.8	33.7	50.5
All other fields	4.8	2.4	2.5	35.7	54.7

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Academic rank was collected differently in NSOPF:04 compared with previous NSOPF cycles. Respondents with another unspecified rank were no longer allowed to specify their other rank. 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. Percentage distribution of full-time instructional faculty and staff, by tenure status, institution type, and program area: Fall 2003

Institution type and program area	Tenure status			No tenure system at institution
	Tenured	On tenure track	Not on tenure track	
All institutions ¹	49.3	21.3	20.9	8.5
Public doctoral ²	53.0	20.4	25.9	0.7
Private not-for-profit doctoral ²	47.1	19.6	28.8	4.5
Public master's	53.8	28.3	17.0	1.0
Private not-for-profit master's	41.9	28.1	21.5	8.6
Private not-for-profit baccalaureate	42.9	25.0	21.6	10.5
Public associate's	49.1	15.6	9.3	26.0
Other ³	39.4	17.3	18.7	24.6
All program areas in 4-year institutions	49.5	22.6	23.4	4.5
Agriculture/home economics	58.1	20.0	19.5	2.3
Business	51.9	26.3	17.4	4.5
Education	37.7	26.4	29.1	6.8
Engineering	60.3	23.5	13.6	2.6
Fine arts	45.8	24.5	18.0	11.7
Health sciences	31.5	20.3	41.1	7.1
Humanities	52.2	22.9	22.0	3.0
Natural sciences	57.2	20.8	19.3	2.7
Social sciences	57.2	24.6	15.3	2.9
All other fields	46.1	20.7	29.2	4.1

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 13. Percentage distribution of part-time instructional faculty and staff, by tenure status, institution type, and program area: Fall 2003

Institution type and program area	Tenure status			No tenure system at institution
	Tenured	On tenure track	Not on tenure track	
All institutions ¹	2.7	1.5	86.6	9.2
Public doctoral ²	5.1	1.4	92.6	0.8
Private not-for-profit doctoral ²	2.3	1.3	92.6	3.8
Public master's	3.8	1.0	92.3	2.9
Private not-for-profit master's	0.9	1.1	92.6	5.4
Private not-for-profit baccalaureate	2.8	1.3	86.9	9.0
Public associate's	2.4	1.9	82.9	12.8
Other ³	2.3	0.6	73.7	23.4
All program areas in 4-year institutions	3.0	1.1	89.4	6.5
Agriculture/home economics	1.4	#	98.2	0.4
Business	1.2	0.3	85.2	13.3
Education	1.8	1.6	91.6	5.1
Engineering	7.5	#	92.5	#
Fine arts	1.2	1.0	89.2	8.6
Health sciences	4.1	2.5	82.8	10.6
Humanities	4.9	0.8	90.6	3.6
Natural sciences	5.1	1.4	89.5	4.0
Social sciences	2.6	1.7	89.7	6.0
All other fields	2.1	0.3	93.2	4.4

Rounds to zero.

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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. Percentage distribution of full-time instructional faculty and staff, by highest educational credential attained, institution type, and program area: Fall 2003

Institution type and program area	Highest credential attained		
	Doctoral or first-professional	Master's degree	Bachelor's or less
All institutions ¹	67.9	26.6	5.5
Public doctoral ²	85.5	12.8	1.7
Private not-for-profit doctoral ²	86.9	10.8	2.3
Public master's	76.1	21.7	2.2
Private not-for-profit master's	68.2	29.5	2.4
Private not-for-profit baccalaureate	71.0	26.0	2.9
Public associate's	18.8	63.2	18.0
Other ³	52.8	36.0	11.2
All program areas in 4-year institutions	78.9	18.3	2.8
Agriculture/home economics	79.7	18.0	2.3
Business	76.4	21.9	1.7
Education	72.6	23.7	3.7
Engineering	87.6	9.3	3.2
Fine arts	39.2	50.6	10.2
Health sciences	79.6	17.9	2.6
Humanities	83.4	16.0	0.7
Natural sciences	89.8	9.1	1.1
Social sciences	93.5	5.5	1.0
All other fields	63.2	30.8	6.1

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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. Percentage distribution of part-time instructional faculty and staff, by highest educational credential attained, institution type, and program area: Fall 2003

Institution type and program area	Highest credential attained		
	Doctoral or first-professional	Master's degree	Bachelor's or less
All institutions ¹	25.3	53.2	21.5
Public doctoral ²	43.9	44.0	12.1
Private not-for-profit doctoral ²	48.9	39.8	11.3
Public master's	28.1	58.0	14.0
Private not-for-profit master's	28.1	64.7	7.2
Private not-for-profit baccalaureate	26.6	62.0	11.4
Public associate's	13.8	53.3	32.9
Other ³	25.8	52.3	21.9
All program areas in 4-year institutions	34.1	53.2	12.7
Agriculture/home economics	24.2	57.8	18.0
Business	21.6	71.0	7.5
Education	28.6	66.5	4.9
Engineering	49.5	32.9	17.7
Fine arts	9.3	58.4	32.4
Health sciences	52.2	35.2	12.6
Humanities	34.0	57.5	8.5
Natural sciences	39.4	45.5	15.0
Social sciences	51.6	45.2	3.2
All other fields	37.5	47.6	14.9

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 16. Percentage distribution of full-time instructional faculty and staff, by principal activity, institution type, and program area: Fall 2003

Institution type and program area	Principal activity			
	Teaching	Research	Administration	Other ¹
All institutions ²	67.8	12.4	10.5	9.3
Public doctoral ³	51.6	25.3	11.0	12.1
Private not-for-profit doctoral ³	48.6	25.0	11.8	14.6
Public master's	81.9	2.0	10.7	5.4
Private not-for-profit master's	82.6	0.6	11.1	5.7
Private not-for-profit baccalaureate	83.4	0.7	10.7	5.2
Public associate's	85.1	0.1	7.6	7.3
Other ⁴	79.2	1.4	13.2	6.2
All program areas in 4-year institutions	63.9	15.2	11.2	9.7
Agriculture/home economics	48.9	25.8	13.1	12.3
Business	74.5	12.0	11.7	1.8
Education	66.3	4.8	21.0	7.9
Engineering	58.7	27.5	10.1	3.6
Fine arts	83.2	1.3	10.6	4.8
Health sciences	36.8	14.4	13.0	35.8
Humanities	82.6	3.8	10.2	3.5
Natural sciences	56.7	32.1	6.9	4.3
Social sciences	68.3	16.0	9.8	5.9
All other fields	68.5	5.5	13.5	12.6

¹ Includes clinical service, sabbatical, technical activities, other institutional activities such as library services, community public service, subsidized performance, and artist-in-residence appointments.

² All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

³ Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

⁴ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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. Percentage distribution of part-time instructional faculty and staff, by principal activity, institution type, and program area: Fall 2003

Institution type and program area	Principal activity			
	Teaching	Research	Administration	Other ¹
All institutions ²	91.3	1.1	0.8	6.8
Public doctoral ³	81.0	5.3	1.6	12.1
Private not-for-profit doctoral ³	83.1	2.7	1.5	12.7
Public master's	92.7	0.6	0.6	6.2
Private not-for-profit master's	94.3	0.2	0.4	5.1
Private not-for-profit baccalaureate	92.0	0.9	1.9	5.2
Public associate's	94.1	#	0.4	5.5
Other ⁴	94.2	1.0	0.9	3.9
All program areas in 4-year institutions	89.1	2.0	1.1	7.9
Agriculture/home economics	90.1	1.6	1.0	7.3
Business	96.9	1.2	0.4	1.6
Education	84.9	0.5	2.5	12.1
Engineering	88.0	7.9	1.6	2.6
Fine arts	96.8	0.2	0.8	2.2
Health sciences	59.7	3.0	1.6	35.7
Humanities	95.6	1.5	1.3	1.7
Natural sciences	89.5	6.5	0.9	3.1
Social sciences	94.6	1.8	#	3.6
All other fields	94.0	0.1	0.5	5.5

#Rounds to zero.

¹ Includes clinical service, sabbatical, technical activities, other institutional activities such as library services, community public service, subsidized performance, and artist-in-residence appointments.² All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.³ Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.⁴ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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 18. Average number of hours instructional faculty and staff reported working per week at all jobs, by employment status, institution type, and program area: Fall 2003

Institution type and program area	Average hours worked per week ¹	
	Full time	Part time
All institutions ²	53.4	40.4
Public doctoral ³	55.5	42.9
Private not-for-profit doctoral ³	55.2	42.4
Public master's	53.3	38.4
Private not-for-profit master's	51.8	42.4
Private not-for-profit baccalaureate	53.9	39.3
Public associate's	49.3	39.0
Other ⁴	51.4	42.5
All program areas in 4-year institutions	54.3	41.5
Agriculture/home economics	55.4	43.9
Business	53.7	44.1
Education	53.7	37.7
Engineering	56.1	44.4
Fine arts	53.4	40.9
Health sciences	56.5	42.8
Humanities	52.9	38.4
Natural sciences	54.3	40.1
Social sciences	54.7	41.7
All other fields	53.4	46.1

¹ The average number of hours worked per week includes all paid and unpaid hours worked at the postsecondary institution and all paid and unpaid hours worked outside of the institution, regardless of employment status at the sampled institution.

² All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

³ Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

⁴ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities).

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

Table 19. Among full-time instructional faculty and staff, average percentage of time spent on various activities at the institution, by institution type and program area: Fall 2003

Institution type and program area	Percent of time spent on:		
	Teaching activities	Research activities	Administrative and other activities
All institutions ¹	61.7	18.2	20.1
Public doctoral ²	50.8	28.2	21.1
Private not-for-profit doctoral ²	49.3	28.5	22.3
Public master's	66.4	14.3	19.4
Private not-for-profit master's	68.7	10.9	20.4
Private not-for-profit baccalaureate	67.7	12.0	20.3
Public associate's	79.8	3.5	16.8
Other ³	70.3	8.8	20.9
All program areas in 4-year institutions	57.7	21.5	20.8
Agriculture/home economics	52.6	24.0	23.4
Business	61.6	20.9	17.6
Education	60.0	15.0	25.1
Engineering	56.2	26.2	17.6
Fine arts	67.1	13.7	19.2
Health sciences	49.1	19.1	31.8
Humanities	64.6	17.5	17.9
Natural sciences	54.5	29.7	15.8
Social sciences	55.4	25.8	18.8
All other fields	60.2	15.5	24.3

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Individuals were only asked about work time at the sampled institution, whereas previous cycles of NSOPF asked about individuals' total work time from all jobs. 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 20. Among part-time instructional faculty and staff, average percentage of time spent on various activities at the institution, by institution type and program area: Fall 2003

Institution type and program area	Percent of time spent on:		
	Teaching activities	Research activities	Administrative and other activities
All institutions ¹	90.0	3.4	6.6
Public doctoral ²	82.6	8.4	9.0
Private not-for-profit doctoral ²	86.3	4.2	9.4
Public master's	92.3	2.5	5.2
Private not-for-profit master's	91.1	2.3	6.6
Private not-for-profit baccalaureate	89.7	2.6	7.7
Public associate's	92.4	2.1	5.5
Other ³	88.2	4.4	7.4
All program areas in 4-year institutions	88.2	4.3	7.5
Agriculture/home economics	89.8	4.1	6.0
Business	89.9	3.0	7.2
Education	90.8	2.7	6.5
Engineering	84.4	9.4	6.3
Fine arts	90.0	3.4	6.5
Health sciences	79.8	5.6	14.6
Humanities	88.8	4.8	6.4
Natural sciences	86.7	5.8	7.5
Social sciences	87.7	5.3	7.0
All other fields	91.0	3.2	5.8

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). Individuals were only asked about work time at the sampled institution, whereas previous cycles of NSOPF asked about individuals' total work time from all jobs. 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 21. Average number of classroom hours and student contact hours per week in for-credit classes for full-time instructional faculty and staff, by institution type and program area: Fall 2003

Institution type and program area	Average classroom hours per week	Average student contact hours per week ¹
All institutions ²	11.1	308
Public doctoral ³	8.1	287
Private not-for-profit doctoral ³	7.8	273
Public master's	10.9	294
Private not-for-profit master's	11.6	274
Private not-for-profit baccalaureate	10.6	223
Public associate's	18.1	431
Other ⁴	11.5	280
All program areas in 4-year institutions	9.4	279
Agriculture/home economics	8.8	268
Business	10.0	318
Education	10.0	230
Engineering	7.9	197
Fine arts	11.0	244
Health sciences	10.5	344
Humanities	9.3	240
Natural sciences	9.1	323
Social sciences	8.2	279
All other fields	9.8	261

¹ Number of hours per week spent teaching for-credit classes multiplied by the number of students in those classes.

² All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

³ Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

⁴ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: This table includes only the 89 percent of faculty and staff with instructional responsibilities who taught credit classes.

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

Table 22. Average number of classroom hours and student contact hours per week in for-credit classes for part-time instructional faculty and staff, by institution type and program area: Fall 2003

Institution type and program area	Average classroom hours per week	Average student contact hours per week ¹
All institutions ²	7.7	180
Public doctoral ³	6.2	194
Private not-for-profit doctoral ³	6.2	200
Public master's	7.0	180
Private not-for-profit master's	7.6	133
Private not-for-profit baccalaureate	7.3	118
Public associate's	8.5	182
Other ⁴	7.9	238
All program areas in 4-year institutions	7.0	180
Agriculture/home economics	4.9	156
Business	7.0	156
Education	7.7	150
Engineering	11.4	557
Fine arts	6.9	149
Health sciences	7.6	256
Humanities	6.4	149
Natural sciences	6.7	180
Social sciences	6.1	192
All other fields	7.0	149

¹ Number of hours per week spent teaching for-credit classes multiplied by the number of students in those classes.

² All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

³ Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

⁴ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: This table includes only the 89 percent of faculty and staff with instructional responsibilities who taught credit classes.

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

Table 23. Average number of publications and presentations in the past 2 years by full-time instructional faculty and staff, by institution type and program area: Fall 2003

Institution type and program area	Publications and presentations				
	Refereed or juried publications	Nonrefereed or nonjuried publications	Published reviews of material	Books, monographs, and reports	Presentations and exhibits
All institutions ¹	2.1	1.1	0.8	0.5	5.3
Public doctoral ²	3.6	1.5	1.0	0.6	6.8
Private not-for-profit doctoral ²	3.8	1.3	1.3	0.5	6.5
Public master's	1.5	1.1	0.7	0.5	4.8
Private not-for-profit master's	0.9	1.0	0.5	0.3	4.5
Private not-for-profit baccalaureate	0.9	0.8	0.6	0.4	4.1
Public associate's	0.2	0.5	0.3	0.3	2.9
Other ³	0.8	1.0	0.5	0.6	5.7
All program areas in 4-year institutions	2.6	1.3	0.9	0.5	5.9
Agriculture/home economics	3.4	3.9	0.8	0.9	8.7
Business	2.0	0.9	0.5	0.4	3.6
Education	1.4	1.2	0.6	0.6	6.4
Engineering	4.4	2.5	0.7	0.9	5.9
Fine arts	1.1	1.0	0.8	0.4	14.7
Health sciences	3.1	1.2	1.0	0.5	6.6
Humanities	1.7	1.0	1.6	0.5	4.2
Natural sciences	4.1	1.0	0.7	0.4	5.0
Social sciences	2.3	1.1	1.1	0.7	5.1
All other fields	1.2	1.3	0.8	0.6	4.4

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). All instructional faculty and staff are included in averages, regardless of whether they had that type of activity. Information about publications and presentations was collected differently in NSOPF:04 compared with previous NSOPF cycles. Respondents were no longer asked to identify whether they had joint or sole authorship of their publications. Removing this distinction may have affected the number of publications respondents reported.

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

Table 24. Average number of publications and presentations in the past 2 years by part-time instructional faculty and staff, by institution type and program area: Fall 2003

Institution type and program area	Publications and presentations				
	Refereed or juried publications	Nonrefereed or nonjuried publications	Published reviews of material	Books, monographs, and reports	Presentations and exhibits
All institutions ¹	0.5	0.9	0.3	0.4	4.4
Public doctoral ²	1.2	1.3	0.4	0.5	4.8
Private not-for-profit doctoral ²	0.9	0.9	0.4	0.5	4.4
Public master's	0.5	1.0	0.3	0.4	5.7
Private not-for-profit master's	0.4	0.9	0.2	0.5	6.2
Private not-for-profit baccalaureate	0.5	0.8	0.3	0.3	4.9
Public associate's	0.2	0.7	0.2	0.3	3.0
Other ³	0.4	1.0	0.4	0.6	6.8
All program areas in 4-year institutions	0.7	1.0	0.3	0.5	5.4
Agriculture/home economics	0.8	2.4	0.1	0.4	5.3
Business	0.3	1.1	0.2	0.8	3.5
Education	0.3	0.9	0.2	0.3	4.3
Engineering	2.1	1.7	0.4	1.0	4.9
Fine arts	0.8	0.9	0.5	0.3	17.2
Health sciences	0.8	0.6	0.3	0.4	3.8
Humanities	0.7	0.9	0.6	0.2	3.2
Natural sciences	1.0	0.8	0.3	0.5	2.9
Social sciences	0.8	0.9	0.3	0.6	4.4
All other fields	0.5	1.5	0.4	0.5	4.9

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). All instructional faculty and staff are included in averages, regardless of whether they had that type of activity. Information about publications and presentations was collected differently in NSOPF:04 compared with previous NSOPF cycles. Respondents were no longer asked to identify whether they had joint or sole authorship of their publications. Removing this distinction may have affected the number of publications respondents reported.

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

Table 25. Average income of full-time instructional faculty and staff, by source of income, institution type, and program area: 2003

Institution type and program area	Total earned income	Source of income			
		Basic salary from institution	Other income from institution	Outside consulting income	Other outside income
All institutions ¹	\$80,700	\$66,800	\$5,200	\$2,200	\$6,600
Public doctoral ²	91,700	76,400	6,100	2,700	6,500
Private not-for-profit doctoral ²	108,100	87,700	6,800	3,700	9,900
Public master's	69,200	58,200	4,200	1,500	5,300
Private not-for-profit master's	71,300	57,600	4,000	2,200	7,500
Private not-for-profit baccalaureate	64,000	54,200	2,700	1,300	5,800
Public associate's	64,000	52,600	5,000	1,200	5,200
Other ³	66,400	54,800	3,000	2,200	6,400
All program areas in 4-year institutions	84,400	69,900	5,200	2,500	6,800
Agriculture/home economics	77,100	67,400	3,000	1,900	4,800
Business	98,400	77,700	8,000	3,900	8,700
Education	71,000	57,700	4,900	1,800	6,600
Engineering	101,700	80,400	8,700	5,200	7,400
Fine arts	65,800	53,300	2,900	2,800	6,900
Health sciences	113,800	94,400	5,600	2,900	10,900
Humanities	66,400	57,500	3,100	1,100	4,700
Natural sciences	86,800	73,700	5,600	2,000	5,500
Social sciences	81,700	66,800	5,800	2,600	6,500
All other fields	75,400	61,600	4,500	2,500	6,800

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). All instructional faculty and staff are included in averages, regardless of whether they had that type of activity. Income is for the 2003 calendar year for instructional faculty and staff employed in the fall of 2003. Income excludes all reported nonmonetary income. 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 26. Average income of part-time instructional faculty and staff, by source of income, institution type, and program area: 2003

Institution type and program area	Total earned income	Source of income			
		Basic salary from institution	Other income from institution	Outside consulting income	Other outside income
All institutions ¹	\$52,800	\$11,000	\$900	\$3,000	\$37,900
Public doctoral ²	63,300	17,500	1,300	3,500	41,000
Private not-for-profit doctoral ²	73,200	15,600	1,000	5,300	51,200
Public master's	47,000	10,100	800	2,300	33,900
Private not-for-profit master's	58,400	9,300	800	4,000	44,400
Private not-for-profit baccalaureate	53,500	10,200	800	3,100	39,400
Public associate's	44,800	9,200	800	2,300	32,500
Other ³	58,000	9,500	1,300	3,400	43,800
All program areas in 4-year institutions	58,700	12,400	1,000	3,600	41,800
Agriculture/home economics	44,100	10,900	700	2,900	29,600
Business	81,300	10,400	1,000	5,200	64,600
Education	57,500	9,800	1,100	2,100	44,600
Engineering	67,000	16,100	1,400	4,400	45,000
Fine arts	43,700	9,900	900	5,600	27,400
Health sciences	75,500	22,500	1,200	4,200	47,600
Humanities	38,200	11,600	1,000	1,300	24,300
Natural sciences	55,100	14,000	1,100	2,800	37,100
Social sciences	56,700	11,100	1,200	3,800	40,600
All other fields	66,600	10,000	600	4,300	51,800

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). All instructional faculty and staff are included in averages, regardless of whether they had that type of activity. Income is for the 2003 calendar year for instructional faculty and staff employed in the fall of 2003. Income excludes all reported nonmonetary income. 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 27. Average income from the institution other than basic salary for instructional faculty and staff who earned that type of income, by employment status, institution type, and program area: 2003

Institution type and program area	Other income from institution	
	Full time	Part time
All institutions ¹	\$9,800	\$6,000
Public doctoral ²	12,700	7,500
Private not-for-profit doctoral ²	14,700	6,600
Public master's	7,800	5,400
Private not-for-profit master's	7,000	4,500
Private not-for-profit baccalaureate	5,300	6,100
Public associate's	8,000	5,700
Other ³	6,000	7,400
All program areas in 4-year institutions	10,400	6,200
Agriculture/home economics	8,400	‡
Business	12,600	8,100
Education	8,300	6,000
Engineering	16,000	‡
Fine arts	5,800	4,400
Health sciences	15,300	8,900
Humanities	6,400	5,600
Natural sciences	11,900	6,200
Social sciences	10,700	9,800
All other fields	8,000	4,200

‡ Reporting standards not met (too few cases).

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities) who earned income from the institution other than their basic salary (52 percent of full-time and 15 percent of part-time faculty). This included income from additional teaching activities, e.g., for summer session, or from supplements not included in basic salary, such as compensation for administration, research, or coaching sports. Income is for the 2003 calendar year for instructional faculty and staff employed in the fall of 2003. Income excludes all reported nonmonetary income.

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

Table 28. Average consulting income for instructional faculty and staff who earned that type of income, by employment status, institution type, and program area: 2003

Institution type and program area	Consulting income	
	Full time	Part time
All institutions ¹	\$7,300	\$11,300
Public doctoral ²	7,700	12,300
Private not-for-profit doctoral ²	10,300	15,800
Public master's	5,100	8,200
Private not-for-profit master's	7,600	11,300
Private not-for-profit baccalaureate	5,100	10,900
Public associate's	5,600	10,500
Other ³	7,500	11,400
All program areas in 4-year institutions	7,600	11,700
Agriculture/home economics	5,300	‡
Business	12,300	17,200
Education	5,100	6,900
Engineering	10,800	14,400
Fine arts	6,300	11,300
Health sciences	8,700	16,200
Humanities	4,500	5,400
Natural sciences	7,200	10,800
Social sciences	8,000	12,600
All other fields	7,700	15,400

‡ Reporting standards not met (too few cases).

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities) who earned income from consulting (30 percent of full-time and 27 percent of part-time faculty). Income is for the 2003 calendar year for instructional faculty and staff employed in the fall of 2003.

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

Table 29. Average income from outside the institution other than consulting income for instructional faculty and staff who earned that type of income, by employment status, institution type, and program area: 2003

Institution type and program area	Other outside income	
	Full time	Part time
All institutions ¹	\$12,400	\$44,800
Public doctoral ²	12,200	51,300
Private not-for-profit doctoral ²	17,200	62,100
Public master's	10,500	39,700
Private not-for-profit master's	13,500	50,600
Private not-for-profit baccalaureate	10,800	45,400
Public associate's	11,000	38,600
Other ³	11,700	49,600
All program areas in 4-year institutions	12,700	49,400
Agriculture/home economics	9,900	34,200
Business	15,400	70,700
Education	12,900	49,800
Engineering	14,000	53,800
Fine arts	11,100	32,300
Health sciences	19,800	59,800
Humanities	8,700	30,800
Natural sciences	11,300	47,000
Social sciences	11,400	46,900
All other fields	12,300	59,100

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities) who earned income from outside the institution other than consulting income (53 percent of full-time and 85 percent of part-time faculty). This included income from employment at another academic institution; legal or medical services or psychological counseling; self-owned business, other than consulting; professional performances or exhibitions; speaking fees and honoraria; royalties or commissions; and income from any other employment. Income is for the 2003 calendar year for instructional faculty and staff employed in the fall of 2003. Income excludes all reported nonmonetary income.

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

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Appendix A—Glossary

This glossary includes descriptions of the variables that were used in the tables of this E.D. TAB. The 2004 National Study of Postsecondary Faculty (NSOPF:04) Data Analysis System (DAS) was used to generate the tables in this report. Readers may refer to appendix B for more information on the DAS application.

Variables are listed in the glossary index below by general topic area and in the order in which they appear in the tables. The glossary that follows is organized alphabetically by variable name (displayed in capital letters to the right of the variable label).

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Outside consulting income	Q66D
Other outside income	X06Q66

Academic rank**Q10**

Respondents were asked, “During the 2003 Fall Term, was your academic rank, title, or position at [institution name]...” In 2004, the response options for academic rank changed from previous cycles of NSOPF. In 1999, respondents were allowed to fill in their responses to the “other specify” category and these responses were recorded on the file. In some cases, respondents reported information in the “other specify” category that was then reassigned to one of the existing categories of rank. In 2004, respondents could check the “other” category, but did not specify their rank, title, or position.

Full professor
Associate professor
Assistant professor
Instructor or lecturer
Other ranks/not applicable

Tenure status**Q12**

Respondents were asked, “During the 2003 Fall Term at [institution name], were you...”

Tenured
On tenure track
Not on tenure track
No tenure system at institution

Percent of time spent on research activities**Q32C**

Respondents were asked, “For the [number of paid and unpaid] hours per week you worked during the 2003 Fall Term at [institution name] 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.” Individuals were only asked about work time at the sampled institution, whereas previous cycles of NSOPF asked about individuals’ total work time from all jobs.

“What percentage of your time was spent on research activities, other forms of scholarship, or grants at this institution?”

Percent of time spent on administrative and other activities**Q32D**

Respondents were asked, “For the [number of paid and unpaid] hours per week you worked during the 2003 Fall Term at [institution name] 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.” Individuals were only asked about work time at the sampled institution, whereas previous cycles of NSOPF asked about individuals’ total work time from all jobs.

“What percentage of your time was spent on all other activities at this institution like administration, professional growth, service, and other activities not related to teaching or research?”

Number of credit classes taught**Q35A1**

This variable was used to restrict the sample used in tables 21 and 22 to those who taught classes for credit. Respondents were asked, “Next, we would like to ask you about the classes or sections you taught during the 2003 Fall Term at [institution name]. 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 classes/sections for credit towards degree did you teach?”

Employment status**Q5**

Respondents were asked, “During the 2003 Fall Term, did [institution name] consider you to be employed full time or part time?”

Full time

Part time

Refereed or juried publications**Q52BA**

Respondents were asked, “Of the [career total] articles or creative works published in refereed journals or juried media in your career, how many were done in the last 2 years?”

Nonrefereed or nonjuried publications**Q52BB**

Respondents were asked, “Of the [career total] articles or creative works published in nonrefereed journals or nonjuried media in your career, how many were done in the last 2 years?”

Published reviews of material**Q52BC**

Respondents were asked, “Of the [career total] reviews of books, articles, or creative works chapters in edited volumes published in your career, how many were in the last 2 years?”

Books, monographs, and reports**Q52BD**

Respondents were asked, “Of the [career total] textbooks, other books, monographs, and client reports you published during your career, how many were done in the last 2 years?”

Basic salary from institution**Q66A**

Respondents were asked, “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 [institution name]: What is your basic salary during the calendar year from this institution?”

Other income from institution

Q66B

Respondents were asked, “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.) Next, your compensation from other sources: 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.)?”

Outside consulting income

Q66D

Respondents were asked, “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.) Next, your compensation from other sources: How much were you paid for outside consulting or freelance work?”

Total earned income

Q66SUM

This derived variable represents the total earned income for the 2003 calendar year as reported by the respondent. It is calculated based on the reported income in basic salary from the institution, other income from the institution, income from another academic institution, income from consulting or freelance work, income from other employment, or income from other sources (e.g., investment income, royalties/commissions, pensions, real estate, loans, alimony, or child support).

Gender

Q71

Self-reported gender of respondent.

- Male
- Female

Citizenship status

Q81

Respondents were asked, “Are you a United States citizen?”

- Citizen
- Noncitizen

Any instructional responsibilities for credit

X01Q1

This derived variable was created to indicate whether respondents had any instructional duties for courses available for credit at the institution from which they were sampled during the 2003 fall term.

- Yes
- No

Variable Name

Highest credential attained**X01Q17**

This derived variable was created in order to describe the highest degree or award achieved by a respondent.

Doctoral or first-professional	Includes doctoral and first-professional degrees
Master's degree	Master's degree
Bachelor's or less	Includes bachelor's, associate's, and less than associate's degrees

Hours worked per week**X01Q31**

This derived variable represents the total number of hours per week the respondent reported working, including hours spent on paid and unpaid activities both at and outside of the institution.

Percent of time spent on teaching activities**X01Q32**

This derived variable represents the total percentage of their time respondents reported spending in teaching activities, including both the percentage of time spent teaching undergraduates and the percentage of time spent teaching graduate or first-professional students. Individuals were only asked about work time at the sampled institution, whereas previous cycles of NSOPF asked about individuals' total work time from all jobs.

Classroom hours per week**X01Q37**

This derived variable is a calculation of the total number of hours the respondent spent teaching for-credit classes each week (maximum of 5 classes).

Principal activity**X01Q4**

This derived variable was created to indicate respondents' primary activity at their sampled institution during the 2003 fall term.

Teaching
Research
Administration
Other (Includes public service, clinical service, on sabbatical, other activities)

Age**X01Q72**

This derived variable was created to report a respondent's age in 2004, which was calculated by subtracting the respondent's birth year from the survey year.

Program area**X02Q16**

Respondents were asked, “What is your principal field or discipline of teaching at [institution name]?” Respondents were then asked to select a general area and a specific discipline from a list of codes produced based on their answer. This derived variable condenses the list of 32 general areas and 2 separately identified subgroups into 10 program areas.

Agriculture and home economics	Agriculture/natural resources/related Family/consumer sciences, human sciences
Business	Business/management/marketing/related
Education	Education
Engineering	Engineering technologies/technicians
Fine arts	Arts—visual and performing
Health sciences	Health professions/clinical sciences
Humanities	English language and literature/letters Foreign languages/literature/linguistics History Philosophy and religion
Natural sciences	Biological and biomedical sciences Physical sciences Mathematics and statistics Computer/info sciences/support tech
Social sciences	Psychology Area/ethnic/cultural/gender studies Social sciences (except psychology and history)
All other programs	No principal teaching field Architecture and related services Communication/journalism/communication tech Construction trades Legal professions and studies Library science Mechanical/repair technologies/techs Multi/interdisciplinary studies Parks/recreation/leisure/fitness studies Precision production Personal and culinary services Public administration/social services Science technologies/technicians Security and protective services Theology Transportation and materials moving

Variable Name

Student contact hours per week**X02Q37**

This derived variable determines the respondent's total student contact hours per week. For each for-credit class the respondent taught (up to a maximum of 5 classes), the average number of hours per week spent teaching was multiplied by the number of students enrolled in the class. The results were added together to obtain the total student contact hours per week.

Presentations and exhibits**X03Q52**

This derived variable combines the total number of presentations at conferences and workshops or exhibitions or performances in the fine or applied arts that the respondent had in the past 2 years.

Age category**X03Q72**

This derived variable is a categorical classification of respondent's age in 2004 (X01Q72).

Under 35
35–44
45–54
55–64
65–70
71 or older

Other outside income**X06Q66**

This derived variable was created to report a respondent's income from sources (other than outside consulting) outside their sampled institution for the 2003 calendar year. Includes income from employment at another academic institution, income from any other employment (except consulting), and income from other sources (e.g., investment income, royalties/commissions, pensions, real estate, loans, alimony, or child support).

Race/ethnicity**X06Q74**

Respondent's self-reported race/ethnicity. Respondents were asked to pick one or more race categories to identify themselves. The categories were American Indian or Alaska Native; Asian; Black or African American; Native Hawaiian or Other Pacific Islander; and White. A separate item asked about Hispanic or Latino ethnicity. Those who identified themselves as Hispanic or Latino are categorized as Hispanic regardless of race.

White	White, not Hispanic or Latino
Black	Black or African American, not Hispanic or Latino
Asian/Pacific Islander	Asian; Native Hawaiian or other Pacific Islander, not Hispanic or Latino
Hispanic	Hispanic or Latino (regardless of race)
Other	American Indian or Alaska Native or More than one race, not Hispanic or Latino

Institutional level**X102Q0**

This derived variable was created from the 2000 Institutional Characteristics IPEDS data to indicate the highest degree granted by the institution (4-year or 2-year) for the institutions sampled for NSOPF:04. (Some institutions may have changed level by fall 2003.) This variable was used to restrict the cases in the program area rows to those who were employed in 4-year institutions.

Institution type**X121Q0**

This derived variable identifies the type of institution in which the respondent was employed. It was derived using the 2000 Carnegie Classification combined with the control (public or private not-for-profit) of the institution. The Carnegie code is listed in parentheses after each description. For more information about the Carnegie Classification system adopted in 2000, see The Carnegie Foundation for the Advancement of Teaching (2001).

Public doctoral	Includes public institutions in the following categories: Doctoral/Research Universities–Extensive (15) Doctoral/Research Universities–Intensive (16) Medical schools and medical centers (52)
Private not-for-profit doctoral	Includes private not-for-profit institutions in the following categories: Doctoral/Research Universities–Extensive (15) Doctoral/Research Universities–Intensive (16) Medical schools and medical centers (52)
Public master’s	Includes public institutions in the following categories: Master’s Colleges and Universities I (21) Master’s Colleges and Universities II (22)
Private not-for-profit master’s	Includes private not-for-profit institutions in the following categories: Master’s Colleges and Universities I (21) Master’s Colleges and Universities II (22)
Private not-for-profit baccalaureate	Includes private not-for-profit institutions in the following categories: Baccalaureate Colleges–Liberal Arts (31) Baccalaureate Colleges–General (32) Baccalaureate/Associate’s Colleges (33)
Public associate’s	Includes public institutions in the following category: Associate’s Colleges (40)
Other	Includes institutions in the following categories: Public baccalaureate (31, 32, and 33) Private not-for-profit associate’s (40) Theological seminaries and other specialized faith-related institutions (51) Other separate health profession schools (53) Schools of engineering and technology (54) Schools of business and management (55) Schools of art, music, and design (56) Schools of law (57) Teachers colleges (58) Other specialized institutions (59) Tribal colleges (60)

Variable Name

[To reflect the emergence of bachelor's degrees being granted at 2-year institutions, the 2000 Carnegie Classification included a new category called "Baccalaureate/Associate's Colleges." These institutions are defined as colleges at which most of the degrees awarded are subbaccalaureate, but at least 10 percent of degrees awarded were bachelor's degrees. This category includes 0.6 percent of faculty in NSOPF:04.]

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Appendix B—Technical Notes and Methodology

Overview

This E.D. TAB uses data from the fourth cycle of the National Study of Postsecondary Faculty (NSOPF) conducted by the U.S. Department of Education’s National Center for Education Statistics (NCES) in 2003–04. NSOPF was designed to provide a national profile of faculty and instructional staff: their professional backgrounds, responsibilities, workloads, salaries, benefits, and attitudes. Previous cycles were conducted in 1987–88, 1992–93, and 1998–99. Additional information on the first three cycles of NSOPF is available at the NSOPF web page (<http://nces.ed.gov/surveys/nsopf/>).

Sample Design

NSOPF:04 consisted of a sample of about 35,000 faculty and instructional staff across a sample of 1,080 institutions in the 50 states and the District of Columbia. This section provides information about the sample design for the 2004 National Study of Postsecondary Faculty (NSOPF:04). The forthcoming NSOPF:04 methodology report will provide more detailed information.

This administration of NSOPF:04 employed a two-stage sampling methodology for selection of eligible faculty and instructional staff. The first sampling stage consisted of all eligible institutions, while the second sampling stage included all faculty and instructional staff from the sampled institutions.

Institution Sample and Selection

The institutions eligible for NSOPF:04 included those in the traditional sector of postsecondary education: degree-granting institutions that were eligible to participate in the federal financial aid programs included in Title IV of the Higher Education Act, that provide formal instructional programs of at least 2 years’ duration, that are public or private not-for-profit, and that are designed primarily for students who have completed the requirements for a high school diploma or its equivalent. NSOPF:04 does not include private for-profit or less-than-2-year institutions.

The institution universe for NSOPF:04 was taken from the 2000–01 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics (IPEDS-IC) file. In order to allow precise survey estimates for institutional sectors of interest, this universe of institutions was stratified based on institution type and level of degree offered. Institution type distinguished between public and private not-for-profit, while level of degree offered used the 2000 Carnegie Classification system. Table B-1 summarizes the number of eligible institutions for each of the resulting 10 primary institutional strata, based on the IPEDS-IC file.

The institution sampling frame for NSOPF:04 was constructed from the IPEDS-IC files. The institutions on the sampling frame were partitioned into 10 institutional strata based on institutional control, highest level of offering, and Carnegie Classification. Ultimately, a sample of 1,080 institutions¹ was selected using probability proportional to size (PPS) selection methodology based on the number of faculty and students at each institution, using Chromy’s sampling algorithm (1979). 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 B-1 summarizes the distribution of the resulting sample of institutions for NSOPF:04. The selected institutions were contacted and asked to provide lists of eligible faculty and instructional staff for their institutions. Table B-2 shows the distribution of sampled and eligible institutions² by institutional characteristics, as well as their corresponding unweighted and weighted response rates.

Faculty and Instructional Staff Sample and Selection

The second stage of the sample selection for NSOPF:04 included faculty and instructional staff in the postsecondary institutions selected at the first stage. “Faculty” refers to employees with faculty status, who may or may not have instructional responsibilities. Instructional staff, also included, are those with instructional responsibilities regardless of faculty status. Instructional responsibilities included teaching classes either for credit or not for credit, providing individual instruction, serving on thesis or dissertation committees, advising or otherwise supervising first-professional, graduate, or undergraduate students. In addition, eligible individuals surveyed by the 2003–04 NSOPF included all faculty and instructional staff

- who were permanent, temporary, adjunct, visiting, acting, or postdoctoral appointees;
- who were employed full or part time by the institution;

¹ In order to account for the institutions that became eligible for NSOPF:04 after construction of the institution sampling frame from the Winter:02 IPEDS, some institutions were added to the sample. Moreover, 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.

² Some institutions either merged or closed after sample selection, and therefore were ineligible for NSOPF:04.

Table B-1. Distribution of NSOPF:04 institution universe and sample, by control and Carnegie Classification

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

¹There were 44 sample institutions that had an unknown Carnegie code at the time of sample selection that were subsequently 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.

NOTE: The universe and sample counts reflect institutions that were added after the main 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. Universe and sample 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 B-2. Counts of sampled, eligible, and participating NSOPF:04 institutions with response rates, by institution type

Institution type	Institution count			Response rate (percent) ¹	
	Sampled	Eligible ²	Participating	Unweighted	Weighted
All institutions	1,080	1,070	980	91.3	90.6
Public					
Doctoral	190	190	180	92.7	93.2
Master's	120	120	100	89.7	89.1
Baccalaureate	30	30	30	92.9	88.4
Associate's	340	330	290	89.1	87.4
Other	10	10	10	100.0	100.0
Private not-for-profit					
Doctoral	110	110	100	92.0	95.6
Master's	80	80	80	92.6	86.8
Baccalaureate	130	130	120	94.6	93.1
Associate's	10	10	10	75.0	86.0
Other	60	60	60	93.3	91.8

¹Based on original unrounded numbers.

²Some institutions either merged or closed after sample selection, and therefore were ineligible for NSOPF:04.

NOTE: Sampled, eligible, and participating institution counts are rounded to the nearest 10. Details 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).

- who were tenured, nontenured but on the tenure track, or nontenured and not on the tenure track;
- who were in professional schools (e.g., medical, law, dentistry, etc.); or
- who were on paid sabbatical leave.

Under the above eligibility criteria, the list of **ineligible individuals** for NSOPF:04 included staff

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

The institution sample selection was based on a 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 categories:

- Hispanic;
- Non-Hispanic Black;
- Asian and Pacific Islander;
- Full-time female;
- Full-time male; or
- All other.

Faculty were assigned to the first of these strata that applied to them. Faculty counts needed for MOS calculations were obtained from the Fall Staff Survey Component of the Winter 2001–02 IPEDS Data Collection (Winter:02 IPEDS). 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 their faculty and instructional staff eligible for NSOPF:04. While most such lists were delivered electronically, a number of lists were provided on hard copies, or had to be constructed using online sources and institution directories.

The sample of faculty was selected using an equal probability stratified systematic sampling, within cells indexed by institutional and faculty strata. A customized cost/variance optimization program was used 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. Table B-3 shows the distribution of the sampled and eligible faculty members by institutional characteristics, as well as their corresponding unweighted and weighted response rates.

Table B-3. Counts of sampled, eligible, and responding NSOPF:04 faculty with response rates, by institution type

Institution type	Faculty count			Response rate (percent) ¹	
	Sampled	Eligible ²	Responding ²	Unweighted	Weighted
All faculty	35,629	34,330	26,110	76.1	75.6
Institutional level					
2-year	9,188	8,830	6,440	73.0	73.7
4-year non-doctoral	8,747	8,430	6,720	79.7	78.6
4-year doctoral	17,694	17,070	12,950	75.8	75.0
Institutional 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
Institutional sector					
Public					
Doctoral	9,827	9,500	7,460	78.6	78.1
Master's	3,485	3,350	2,620	78.1	78.5
Baccalaureate	693	680	510	75.4	67.4
Associate's	9,129	8,770	6,420	73.1	73.7
Other	146	140	110	73.7	73.3
Private not-for-profit					
Doctoral	4,652	4,470	3,160	70.8	68.2
Master's	3,020	2,890	2,270	78.6	78.5
Baccalaureate	3,218	3,120	2,520	80.8	78.7
Associate's	242	240	190	79.8	91.0
Other	1,217	1,160	850	73.1	70.6

¹Based on original unrounded numbers.

²Numbers 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).

Data Quality Procedures

Perturbation

To protect the confidentiality of NCES data that contain information about specific individuals, NSOPF:04 data were subject to perturbation procedures to minimize disclosure risk. Perturbation procedures, which have been approved by the NCES Disclosure Review Board, preserve the central tendency estimates, but may result in slight increases in nonsampling errors.

Imputation of Missing Data

All NSOPF:04 variables with missing data used in this E.D. TAB, as well as those included in the related Data Analysis System (DAS) release, have been imputed. Item imputation for NSOPF:04 was performed in several steps. In the first step, using a cold-deck imputation method, missing values of gender, race, and ethnicity were filled based on the sampling frame information or institutional 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 a weighted sequential hot-deck method. Initially, variables were separated into two groups: conditional and unconditional variables. The first group (unconditional) consisted of variables that apply to all respondents, while the second group (conditional) consisted of variables that apply to only a subset of the respondents. That is, conditional variables were subject to gate questions. Such variables were then categorized with respect to the complexity of their conditionality. Next, missing values of all variables were imputed in the order from the lowest to the highest percentage missing and level of conditionality.

All variables that had less than 1 percent missing were imputed using imputation classes defined by a combination of gender, race, and ethnicity and were sorted by institution type, institution size, and the faculty sampling stratum. The imputation classes for the remaining unconditional variables (that had more than 1 percent missing) were determined using Chi-Square Automatic Interaction Detector (CHAID) to identify the matching criteria closely related to the variable being imputed (Kass 1980). For this purpose, key demographic variables that were logically imputed and all imputed variables with less than 1 percent missing were used as predictors. Overall, 146 variables from the faculty questionnaire were imputed, including 27 variables with less than 1 percent of the cases imputed, 11 variables with 1 to 5 percent imputed,

94 variables with 5 to 10 percent imputed, and 14 variables with more than 10 percent of the cases imputed.

Weighting

All estimates in this E.D. TAB are weighted to represent the target population described in the sample design section. The weights compensate for the unequal probability of selection of institutions and faculty members in the NSOPF sample. The weights also adjust for frame multiplicity at the institution and faculty levels,³ unknown faculty eligibility, nonresponse, and poststratification. In order to compute the final faculty analysis weight, STUDYWT, first an institution-level component weight was computed to reflect the selection process for the institution from which a faculty was sampled. Next, the resulting component weights were used to calculate the faculty weights. All weight components, including those reflecting selection probabilities and adjustment factors, are summarized in table B-4.

Table B-4. Summary of weight components for NSOPF:04

Weight component	Purpose
Institution sampling weight	Account for the institution's probability of selection.
Institution multiplicity adjustment	Adjust the weights for institutions that had multiple chances of selection.
Institution poststratification adjustment	Adjust the institution weights to match published totals to ensure population coverage.
Faculty sampling weight	Account for the faculty's probability of selection.
Faculty multiplicity adjustment	Adjust the weights for faculty members who taught at more than one institution.
Faculty unknown eligibility adjustment	Adjust the weights for nonresponding faculty members with unknown eligibility.
Faculty nonresponse adjustment	Adjust the weights to compensate for nonresponding faculty members.
Faculty poststratification adjustment	Adjust the faculty weights to match known published totals to ensure population coverage.

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

³ It was determined after institution sample selection that in some cases, either an institution had merged with another institution, or faculty lists for two or more campuses were submitted as one combined faculty list. In these instances, the institution weights were adjusted for the joint probability of selection. Likewise, faculty members who taught at more than one institution during the NSOPF year also had multiple chances of selection. If it was determined that a faculty member had taught at more than one institution, the faculty's weight was adjusted to account for multiple chances of selection.

Quality of Estimates

Survey weights are computed with the goal of removing any bias that might result due to differential nonresponse and undercoverage. In order to measure the efficacy of bias-reducing adjustments, a series of analyses were conducted at the item and record levels. In the subsequent sections, highlights of these analyses are summarized.

Unit Response Rates and Bias Analysis

Unit and item response rates for NSOPF:04 were reviewed. Those with a response rate below 85 percent were evaluated for the potential magnitude of nonresponse bias. NSOPF:04 has two stages of data collection: institution and faculty. As seen in table B-2, the overall and stratum level institution weighted response rates exceeded 85 percent; hence, no nonresponse bias analysis was conducted at the institution level. However, at the faculty and item levels, the weighted response rates within certain strata were less than 85 percent. Consequently, nonresponse bias analyses were conducted at the faculty and item levels when the corresponding weighted response rates were below 85 percent at the national or stratum levels.

The bias in an estimated mean based on respondents, \bar{y}_R , is the difference between this estimate and the target parameter, μ , 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:

$$B(\bar{y}_R) = \bar{y}_R - \mu$$

However, for variables that are available from the frame, μ can be estimated by $\hat{\mu}$ without sampling error, in which case the bias in \bar{y}_R can then be estimated by:

$$\hat{B}(\bar{y}_R) = \bar{y}_R - \hat{\mu}$$

Moreover, an estimate of the population mean based on respondents and nonrespondents can be obtained by:

$$\hat{\mu} = (1 - \hat{\eta}) \bar{y}_R + \hat{\eta} \bar{y}_{NR}$$

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:

$$\hat{B}(\bar{y}_R) = \hat{\eta} (\bar{y}_R - \bar{y}_{NR})$$

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 faculty-level design weight prior to nonresponse adjustment.

Faculty-Level Nonresponse Bias Analysis

A faculty respondent is defined as any sample member who is determined to be eligible for the study and has valid data for the selected set of key analytical variables. As shown in table B-3, for the approximately 34,330 eligible sample faculty members the unweighted response rate was 76.1 percent, with a weighted response rate of 75.6 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. Information on nonrespondents was obtained from the sampling frames provided by the institutions. These variables included the following:

Faculty strata:

- Non-Hispanic Black
- Hispanic
- Asian
- Other full-time females
- Other full-time males
- Other part-time faculty
- Unknown

Bureau of Economic Analysis Code (OBE) Region:

- New England CT ME MA NH RI VT
- Mid East DE DC MD NJ NY PA
- Great Lakes IL IN MI OH WI
- Plains IA KS MN MO NE ND SD
- Southeast AL AR FL GA KY LA MS NC SC TN VA WV
- Southwest AZ NM OK TX
- Rocky Mountains CO ID MT UT WY
- Far West AK CA HI NV or WA
- Outlying areas AS FM GU MH MP PR PW VI

The steps for nonresponse bias analysis included estimating the nonresponse bias and testing (adjusting for multiple comparisons) to determine if the bias is significant at the .05 level. Second, nonresponse adjustment factors were computed using a subset of variables listed above.

The nonresponse adjustments were designed 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 for the variables listed above and statistical tests were performed to determine the significance of any remaining nonresponse bias.

As shown in table B-5, the faculty weighting adjustments have reduced, and in some cases nearly 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.

Table B-5. Summary of faculty nonresponse bias analysis for NSOPF:04, by institution type

Institution type	Relative bias before weight adjustments			Relative bias after weight adjustments		
	Mean	Median	Percent significant ¹	Mean	Median	Percent significant ¹
All faculty	0.09	0.05	26.6	0.06	0.02	9.0
Public						
Doctoral	0.04	0.02	69.6	0.02	0.01	34.8
Master's	0.06	0.05	13.0	0.02	0.01	#
Baccalaureate	0.09	0.06	8.7	0.15	0.13	4.4
Associate's	0.06	0.05	26.1	0.03	0.01	4.4
Other	0.12	0.04	100.0	0.06	0.02	#
Private not-for-profit						
Doctoral	0.06	0.05	56.5	0.03	0.03	13.0
Master's	0.07	0.07	17.4	0.04	0.02	13.0
Baccalaureate	0.07	0.06	18.2	0.03	0.03	#
Associate's	0.24	0.15	35.0	0.14	0.05	10.0
Other	0.08	0.05	18.2	0.13	0.06	9.1

#Rounds to zero.

¹The percent significant reflects the ratio of the number of biased estimates to the number of biased and unbiased estimates. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2004 National Study of Postsecondary Faculty (NSOPF:04).

Item-Level Bias Analysis

Item response rates (*IRR*) are calculated as the ratio of the number of respondents for whom an in-scope response was obtained (I^x for item x) to the number of respondents who are asked to answer that item. The number asked to answer an item is the number of unit level respondents (I) minus the number of respondents with a valid skip item for item x (V^x). When an

abbreviated questionnaire⁴ is used to convert refusals, the eliminated questions are treated as item nonresponse.

$$IRR^x = \frac{I^x}{I - V^x}$$

A faculty member is defined to be an item respondent for an interview variable if that faculty member has data for that variable, including logical imputation and recoding based on information obtained elsewhere. Overall, the rates of missing data were low to moderate: nonresponse was less than 15 percent for most items. With the exception of selected items such as the income item, which was expected to have higher rates of refusal due to its sensitive nature, the primary reason item nonresponse exceeds 15 percent is that each applies to a relatively small subset of respondents and these items were not included in the abbreviated instrument. The abbreviated questionnaire was administered to about 1,600 responding faculty members. For more about item nonresponse rates in NSOPF:04, consult chapter 4 of the methodology report.

A nonresponse bias analysis was conducted for those variables with a response rate of less than 85 percent (nonresponse above 15 percent) overall or for any institutional stratum (table B-6). 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 .05 level. The percentage significant reflects the ratio of the number of biased estimates to the number of biased and unbiased estimates. As noted above, respondents are often more reluctant to answer income questions, which are perceived as more personal. The high rates of significant bias shown at public doctoral granting institutions may be due to high variability in faculty salaries or low response by faculty to the income items.

In addition to interview items—those variables that come straight from the survey instrument—this E.D. TAB contains derived variables that convert or combine information from one or more interview items into a new variable. Derived variables were created only after the data had been cleaned, perturbed, and imputed. None of the derived variables in this E.D. TAB were based on interview variables that had more than 30 percent of their cases imputed.

Standard Errors

In order to facilitate computation of standard errors for both linear and nonlinear statistics, a vector of bootstrap sample weights has been added to the analysis file. These weights are zero for units not selected in a particular bootstrap sample; weights for other units are inflated for the bootstrap subsampling. The initial analytic weights for the complete sample are also included for

⁴ Thus, missing values for the approximately 1,600 faculty members who completed the abbreviated questionnaire were imputed.

Table B-6. Summary of item nonresponse bias analysis for all NSOPF:04 faculty, by institution type

Variable/Statistics	All faculty	Public				Private not-for-profit					
		Doctoral	Master's	Bacca-laureate	Asso-ciate's	Other	Doctoral	Master's	Bacca-laureate	Asso-ciate's	Other
Q32C (Percent of time spent on research activities)											
Mean estimated bias	†	†	†	0.02	†	†	†	†	†	†	0.02
Median estimated bias	†	†	†	0.01	†	†	†	†	†	†	0.02
Percent significant bias	†	†	†	8.7	†	†	†	†	†	†	56.5
Q32D (Percent of time spent on administrative or other activities)											
Mean estimated bias	†	†	†	0.02	†	†	†	†	†	†	0.02
Median estimated bias	†	†	†	0.01	†	†	†	†	†	†	0.02
Percent significant bias	†	†	†	8.7	†	†	†	†	†	†	56.5
Q35A1 (Number of credit classes taught)											
Mean estimated bias	†	†	†	0.02	†	†	†	†	†	†	†
Median estimated bias	†	†	†	0.02	†	†	†	†	†	†	†
Percent significant bias	†	†	†	8.7	†	†	†	†	†	†	†
Q52BA (Refereed or juried publications)											
Mean estimated bias	†	†	†	0.02	†	†	†	†	†	†	0.03
Median estimated bias	†	†	†	0.01	†	†	†	†	†	†	0.02
Percent significant bias	†	†	†	8.7	†	†	†	†	†	†	56.5
Q52BB (Nonrefereed or nonjuried publications)											
Mean estimated bias	†	†	†	0.02	†	†	†	†	†	†	0.03
Median estimated bias	†	†	†	0.01	†	†	†	†	†	†	0.02
Percent significant bias	†	†	†	8.7	†	†	†	†	†	†	56.5
Q52BC (Published reviews of material)											
Mean estimated bias	†	†	†	0.02	†	†	†	†	†	†	0.03
Median estimated bias	†	†	†	0.01	†	†	†	†	†	†	0.02
Percent significant bias	†	†	†	13.0	†	†	†	†	†	†	56.5

See notes at end of table.

Table B-6. Summary of item nonresponse bias analysis for all NSOPF:04 faculty, by institution type—Continued

Variable/Statistics	All faculty	Public				Private not-for-profit					
		Doctoral	Master's	Bacca-laureate	Asso-ciate's	Other	Doctoral	Master's	Bacca-laureate	Asso-ciate's	Other
Q52BD (Books, monographs and reports)											
Mean estimated bias	†	†	†	0.02	†	†	†	†	†	†	0.03
Median estimated bias	†	†	†	0.01	†	†	†	†	†	†	0.02
Percent significant bias	†	†	†	13.0	†	†	†	†	†	†	56.5
Q66A (Basic salary from institution)											
Mean relative bias	0.03	0.03	0.06	0.03	0.07	0.03	0.09	0.03	0.04	†	0.06
Median relative bias	0.02	0.01	0.05	0.02	0.05	0.02	0.06	0.02	0.02	†	0.04
Percent significant bias	36.4	43.5	13.0	13.0	8.7	17.4	13.0	34.8	17.4	†	26.1
Q66B (Other income from institution)											
Mean relative bias	0.02	†	†	0.03	0.06	†	0.08	†	0.04	†	0.06
Median relative bias	0.02	†	†	0.02	0.05	†	0.06	†	0.02	†	0.04
Percent significant bias	42.4	†	†	13.0	8.7	†	13.0	†	4.4	†	26.1
Q66D (Outside consulting income)											
Mean relative bias	0.03	0.03	0.06	0.03	0.07	0.03	0.08	0.04	0.04	†	0.06
Median relative bias	0.02	0.01	0.06	0.02	0.04	0.02	0.04	0.03	0.03	†	0.05
Percent significant bias	33.3	30.4	13.0	13.0	13.0	21.7	13.0	17.4	8.7	†	21.7

† Not applicable.

NOTE: The item nonresponse bias analysis measures the bias remaining after adjustments. Included are survey variables in this E.D. TAB with an overall or stratum response rate of less than 85 percent.

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

the purposes of computing the desired estimates. The vector of replicate weights allows for computing additional estimates for the sole purpose of estimating a variance. Assuming B sets of replicate weights, the variance of any estimate, $\hat{\theta}$, can be estimated by replicating the estimation procedure for each replicate and computing a simple variance of the replicate estimates; i.e.,

$$\text{Var}(\hat{\theta}) = \frac{\sum_{b=1}^B (\hat{\theta}_b - \hat{\theta})^2}{B}$$

where $\hat{\theta}_b$ is the estimate based on the b^{th} replicate weight and B is the number of replicates. Once the replicate weights are provided, this estimate can be produced by most survey software packages (e.g., SUDAAN [RTI 2004]).

The replicate weights were produced using a methodology and computer software developed by Kaufman (2004). This methodology allows for finite population correction factors at two stages of sampling. Application of this method incorporated the finite population correction factor at the first stage only where sampling fractions were generally high. At the second stage, where the sampling fraction was generally low, the finite population correction factor was set to 1.0.

Data Analysis System

The estimates presented in this E.D. TAB were produced using the NSOPF:04 Data Analysis System (DAS). The DAS application on the Web makes it possible for users to specify and generate their own tables. With DAS, users can replicate or expand upon the tables presented in this E.D. TAB. In addition to the table estimates, DAS calculates proper standard errors⁵ and weighted sample sizes for these estimates. For example, table B-7 contains standard errors that correspond to estimates in table 1 of the E.D. TAB. Table B-8 shows estimated population counts for subgroups of NSOPF respondents analyzed in this E.D. TAB. If the number of valid cases is too small to produce a reliable estimate (fewer than 30 cases), DAS prints the message “low n” instead of the estimate. All standard errors for estimates presented in this E.D. TAB can be viewed at <http://nces.ed.gov/DAS/library/reports.asp>. In addition to tables, DAS will also produce a correlation matrix of selected variables to be used for linear regression models. Included in the output with the correlation matrix are the design effects (DEFTs) for each variable in the matrix. Since statistical procedures generally compute regression coefficients

⁵ The NSOPF:04 sample is not a simple random sample, and therefore, simple random sample techniques for estimating sampling error cannot be applied to these data. The DAS takes into account the complexity of the sampling procedures and calculates standard errors appropriate for such samples.

based on simple random sample assumptions, the standard errors must be adjusted with the design effects to take into account the stratified sampling method used in the survey.

Table B-7. Standard errors for table 1: Percentage distribution of instructional faculty and staff, by employment status, institution type, and program area: Fall 2003

Institution type and program area	Employment status	
	Full time	Part time
All institutions	0.17	0.17
Public doctoral	0.28	0.28
Private not-for-profit doctoral	0.37	0.37
Public master's	0.35	0.35
Private not-for-profit master's	0.26	0.26
Private not-for-profit baccalaureate	0.50	0.50
Public associate's	0.30	0.30
Other	0.99	0.99
All program areas in 4-year institutions	0.20	0.20
Agriculture/home economics	3.07	3.07
Business	2.30	2.30
Education	1.62	1.62
Engineering	2.28	2.28
Fine arts	2.07	2.07
Health sciences	1.43	1.43
Humanities	1.42	1.42
Natural sciences	1.16	1.16
Social sciences	1.29	1.29
All other fields	1.23	1.23

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

The DAS can be accessed electronically at <http://nces.ed.gov/DAS/>. For more information about the NSOPF:04 Data Analysis System, contact:

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 National Center for Education Statistics
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 Washington, DC 20006-5652
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Table B-8. Estimated population counts and percentage distribution of instructional faculty and staff, by employment status, institution type, and program area: Fall 2003

Institution type and program area	Instructional faculty and staff		
	All	Full time	Part time
All institutions (in thousands) ¹	1,093.1	619.8	473.2
Public doctoral ²	24.8	34.0	12.8
Private not-for-profit doctoral ²	11.1	13.3	8.2
Public master's	13.1	14.6	11.1
Private not-for-profit master's	8.9	7.0	11.3
Private not-for-profit baccalaureate	6.1	6.8	5.2
Public associate's	29.3	18.5	43.6
Other ³	6.7	5.9	7.8
All program areas in 4-year institutions (in thousands)	773.6	506.3	267.4
Agriculture/home economics	1.9	2.3	1.3
Business	8.0	6.5	10.8
Education	9.7	7.5	14.0
Engineering	4.5	5.5	2.8
Fine arts	8.7	7.1	11.7
Health sciences	12.4	13.2	10.9
Humanities	13.6	13.7	13.5
Natural sciences	18.7	21.9	12.7
Social sciences	10.5	11.2	9.2
All other fields	11.9	11.1	13.2

¹ All public and private not-for-profit Title IV degree-granting institutions in the 50 states and the District of Columbia.

² Doctoral includes research/doctoral institutions, and specialized medical schools and medical centers as classified by the 2000 Carnegie Classification.

³ Public baccalaureate, private not-for-profit associate's, and other specialized institutions, except medical schools and medical centers.

NOTE: Instructional faculty and staff includes only faculty and staff with instructional responsibilities for credit (e.g., teaching one or more classes for credit, or advising or supervising students' academic activities). 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).

Statistical Procedures

The descriptive comparisons were tested in this E.D. TAB using Student's *t* statistic. Differences between estimates are tested against the probability of a Type I error,⁶ or significance level. The significance levels were determined by calculating the Student's *t* values

⁶ A Type I error occurs when one concludes that a difference observed in a sample reflects a true difference in the population from which the sample was drawn, when no such difference is present.

for the differences between each pair of means or proportions and comparing these with published tables of significance levels for two-tailed hypothesis testing.

Student's t values may be computed to test the difference between estimates with the following formula:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2}}$$

where E_1 and E_2 are the estimates to be compared and se_1 and se_2 are their corresponding standard errors. This formula is valid only for independent estimates. When estimates are not independent, a covariance term must be added to the formula:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2 - 2(r)se_1 se_2}}$$

where r is the correlation between the two estimates.⁷ This formula is used when comparing two percentages from a distribution that adds to 100. If the comparison is between the mean of a subgroup and the mean of the total group, the following formula is used:

$$t = \frac{E_{sub} - E_{tot}}{\sqrt{se_{sub}^2 + se_{tot}^2 - 2p se_{sub}^2}}$$

where p is the proportion of the total group contained in the subgroup. The estimates, standard errors, and correlations can all be obtained from DAS.

There are hazards in reporting statistical tests for each comparison. First, comparisons based on large t statistics may appear to merit special attention. This can be misleading since the magnitude of the t statistic is related not only to the observed differences in means or percentages but also to the number of respondents in the specific categories used for comparison. Hence, a small difference compared across a large number of respondents would produce a large t statistic.

A second hazard in reporting statistical tests is the possibility that one can report a “false positive” or Type I error. In the case of a t statistic, this false positive would result when a difference measured with a particular sample showed a statistically significant difference when there is no difference in the underlying population. Statistical tests are designed to control this type of error, denoted by alpha. The alpha level of .05 selected for findings in this E.D. TAB

⁷ U.S. Department of Education, National Center for Education Statistics, *A Note from the Chief Statistician*, no. 2, 1993.

indicates that a difference of a certain magnitude or larger would be produced no more than one time out of twenty when there was no actual difference in the quantities in the underlying population. When we test hypotheses that show t values at the .05 level or smaller, we treat this finding as rejecting the null hypothesis that there is no difference between the two quantities. Failing to detect a difference, however, does not necessarily imply the values are the same or equivalent.