
NATIONAL CENTER FOR EDUCATION STATISTICS

E.D. TABS

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**1993 National Study of Postsecondary Faculty
(NSOPF-93)**

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Instructional Faculty and Staff in the
Humanities**

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Humanities**

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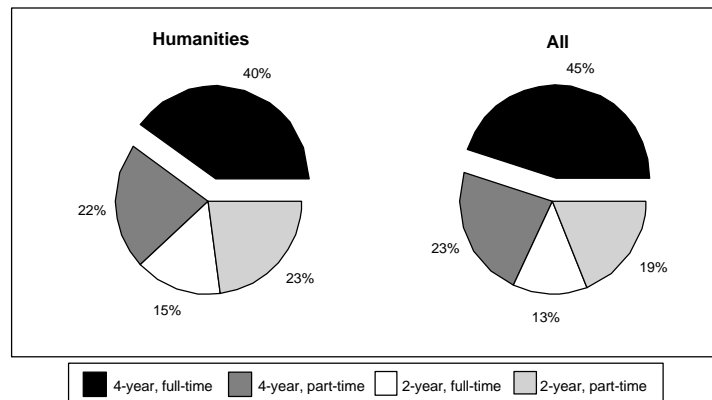
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Introduction

In 1988 and in 1993, the U.S. Department of Education's National Center for Education Statistics, with support from the National Endowment for the Humanities and the National Science Foundation, sponsored national studies of postsecondary faculty. Because faculty are a vital resource to postsecondary education, it is essential to understand who they are, what they do, and how they feel about their profession. The National Study of Postsecondary Faculty (NSOPF) is the most comprehensive nationally representative sample of faculty and instructional staff available, providing critical data on this important resource.¹

In the fall of 1992, there were 133,950² instructional faculty and staff³ who reported their primary area of teaching was the humanities (15 percent of all instructional faculty and staff.)⁴ Sixty-two percent were in 4-year institutions and 38 percent were in 2-year institutions. A higher percentage of instructional faculty and staff in the humanities were employed full-time in 4-year institutions (40 percent) than were employed part-time in 4-year institutions (22 percent) or full- or part-time in 2-year institutions (15 percent and 23 percent, respectively) (figure 1). Similarly, a higher percentage of all instructional faculty and staff (904,930)⁵ were employed full-time in 4-year institutions (45 percent) than were employed part-time in 4-year institutions (23 percent) or full- or part-time in 2-year institutions (13 percent and 19 percent, respectively) (figure 1).

Figure 1.—Distribution of instructional faculty and staff in the humanities and all program areas, by type of institution and employment status: Fall 1992



SOURCE: U.S. Department of Education, National Center for Education Statistics, "1993 National Study of Postsecondary Faculty".

¹ See the *Technical Notes* for a discussion of sampling procedures, survey administration, response rates, and imputation procedures.

² U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty, unpublished data.

³ Instructional faculty and staff are a subset of all faculty (instructional and noninstructional) and instructional staff. Instructional faculty and staff are those individuals who had any instructional duties in the 1992 fall term related to credit courses, advising, or supervising academic activities for credit.

⁴ 133,950 humanities instructional faculty and staff divided by 904,930 total instructional faculty and staff in the country. U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty, unpublished data.

This report focuses on the characteristics, workload, compensation, and attitudes of full-time instructional faculty and staff who taught the humanities in 4-year higher education institutions in the fall of 1992. Data are provided for the humanities generally and for the specific program areas of English and literature, foreign languages, history, and philosophy and religion. Comparisons are made between humanities faculty and faculty in business, law, and communications; natural sciences and engineering; and social sciences and education.⁶ These particular groups of faculty were chosen to ensure adequate sample sizes for each of the groups used in this analysis.

Data are presented on the demographic characteristics (e.g., sex, age, and race/ethnicity); employment characteristics (e.g., academic rank, tenure status, and principal activity); workload (e.g., hours worked, classroom hours taught, and student contact hours); productivity (e.g., publications, presentations, and funded research activities); compensation (e.g., basic salary, consulting income, and other outside income); and attitudes (e.g., satisfaction with workload, salary, and opinions about the reward and support structure) of full-time instructional faculty and staff in 4-year higher education institutions. Highlighted are key findings on characteristics and attitudes of full-time instructional faculty and staff in the humanities in the fall of 1992. Other NCES reports which present NSOPF data include: *Faculty and Instructional Staff: Who Are They and What Do They Do?* [NCES 94–346], *Instructional Faculty and Staff in Higher Education Institutions: Fall 1987 and Fall 1992* [NCES 97–470], and *Retirement and Other Departure Plans of Instructional Faculty and Staff in Higher Education Institutions* [NCES 97–469].

⁵ U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty, unpublished data.

⁶ No comparisons between humanities faculty and the “other” category are made in this report because of the diversity of faculty and program areas included in the “other” category. The “other” category includes agriculture and home economics, fine arts, health sciences, occupationally specific programs, architecture, industrial arts, library and archival sciences, military studies, interdisciplinary studies, theology, public affairs, and anyone who did not designate a program of instruction.

Highlights

- While 36 percent of all full-time humanities instructional faculty and staff in 4-year institutions held the rank of full professor in the fall of 1992, there was variation among the disciplines comprising the humanities. One-half of history instructional faculty and staff held this rank compared with about one-third of those in English and literature (32 percent) or foreign languages (29 percent) (table 1).
- Seventy-one percent of instructional faculty and staff who taught history were tenured in the fall of 1992. Sixty-two percent of those who taught philosophy and religion were tenured, and 56 percent of those who taught English and literature, as well as 56 percent of those who taught foreign languages, were tenured in the fall of 1992 (table 2).
- In the fall of 1992, about the same proportion of full-time instructional faculty and staff in 4-year institutions in history (89 percent) and philosophy and religion (87 percent) held Ph.D. or first professional degrees as instructional faculty and staff in natural sciences and engineering (88 percent) (table 3).
- About one-half of full-time instructional faculty and staff in 4-year institutions in English and literature (47 percent) and foreign languages (50 percent) were female in the fall of 1992, compared with less than one-half of instructional faculty and staff in history (24 percent) and philosophy and religion (13 percent) (table 4).
- Full-time humanities instructional faculty and staff in 4-year institutions were, on average, 49 years old in the fall of 1992. Thirty-nine percent were 45-54 years old (table 6).
- There was a higher than average proportion of full-time Hispanic instructional faculty and staff in 4-year institutions teaching foreign languages in the fall of 1992 (12 percent versus 2 percent overall) (table 5). Furthermore, a higher percentage of full-time foreign languages instructional faculty and staff were non-citizens (19 percent) in the fall of 1992 than overall (8 percent) (table 8).
- A higher percentage of instructional faculty and staff in the humanities reported their principal activity was teaching in the fall of 1992 (85 percent) than those in natural sciences and engineering (66 percent) or social sciences and education (77 percent) (table 9).
- In the fall of 1992, full-time instructional faculty and staff in 4-year institutions spent about 10 hours per week teaching credit classes. Humanities faculty spent about the same number of hours in the classroom, on average, as instructional faculty and staff in business, law and communications, or social sciences and education. Humanities faculty spent more hours per week teaching credit classes (10 hours) than instructional faculty and staff in natural sciences and engineering (8 hours) (table 11).
- Humanities faculty were more likely to report they were very dissatisfied with their workload in the fall of 1992 (13 percent) than instructional faculty and staff in the program areas of business, law, and communications (7 percent), natural sciences and engineering (8 percent), or social sciences and education (9 percent) (table 12).

- About one-half of full-time instructional faculty and staff in 4-year institutions in foreign languages (51 percent), history (52 percent), and philosophy and religion (48 percent) reported they felt greater pressure to increase their workload in the fall of 1992. Fifty-seven percent of humanities instructional faculty and staff who taught English and literature reported they felt similar pressure (table 13).
- Full-time instructional faculty and staff in 4-year institutions in the humanities earned less in total income in the fall of 1992 (\$48,700) than those in the program areas of business, law, and communications (\$69,000), natural sciences and engineering (\$64,200), or social sciences and education (\$57,500). Among humanities faculty, those who taught history earned more in total income (\$54,500) than instructional faculty and staff who taught foreign languages (\$45,500) (table 16).
- Over three-quarters (78 percent) of full-time humanities instructional faculty and staff in 4-year institutions engaged in professional research, writing, or creative works in the fall of 1992 (table 20).
- A lower than average proportion of full-time humanities instructional faculty and staff in 4-year institutions were participating in funded research or funded creative endeavors in the fall of 1992 (13 percent compared with 34 percent overall) (table 21). Similarly, 2 percent of humanities faculty received federal grants compared with 16 percent overall (table 22).
- More humanities faculty felt the ability to obtain external funding in the fall of 1992 had worsened (42 percent) than felt there had been no change (34 percent) or an improvement (23 percent) (table 36).
- In the fall of 1992, about one-half of full-time English and literature instructional faculty and staff in 4-year institutions agreed strongly that teaching effectiveness should be the primary criterion for promotion of college teachers at their institution. Thirty-three percent agreed somewhat and only 5 percent disagreed strongly. In contrast, 30 percent of instructional faculty and staff in natural sciences and engineering agreed strongly that teaching effectiveness should be the primary criterion for promotion of college teachers at their institution, while 14 percent disagreed strongly (table 25).

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Table 1.—Percentage of full-time instructional faculty and staff in 4-year institutions, by academic rank and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Academic Rank				
		Full professor	Associate professor	Assistant professor	Instructor or lecturer	Other rank/not applicable
All program areas	412,424	33.6	26.4	26.9	9.8	3.5
Business, law, and Communications	45,682	31.1	26.7	29.5	10.8	1.9
Humanities	54,093	36.1	25.8	21.8	13.4	2.9
English and literature	23,063	32.0	25.1	22.6	18.1	2.2
Foreign languages	12,000	29.1	25.0	24.3	19.0	2.6
History	11,383	50.1	25.0	16.4	4.6	4.1
Philosophy and religion	7,646	38.6	30.7	23.1	3.9	3.7
Natural sciences and engineering	100,044	41.2	26.1	23.6	6.5	2.6
Social sciences and education	78,156	34.8	28.5	26.3	8.1	2.2
All other program areas*	134,447	27.0	25.4	30.8	11.3	5.6

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 2.—Percentage of full-time instructional faculty and staff in 4-year institutions, by tenure status and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and and staff	Tenure status			
		Tenured	On tenure track	Not on tenure track	No tenure system
All program areas	412,424	55.0	23.4	12.7	8.9
Business, law and Communications	45,682	51.2	28.8	12.3	7.7
Humanities	54,093	59.9	18.7	11.6	9.9
English and literature	23,063	55.7	18.7	13.9	11.7
Foreign languages	12,000	55.8	19.1	14.1	11.0
History	11,383	70.8	16.8	6.3	6.1
Philosophy and religion	7,646	62.5	20.7	8.5	8.2
Natural sciences and engineering	100,044	63.3	22.6	8.4	5.7
Social sciences and education	78,156	60.1	23.2	10.6	6.0
All other program areas*	134,447	45.1	24.3	17.8	12.9

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 3.—Percentage of full-time instructional faculty and staff in 4-year institutions with a doctoral or a first professional degree, by program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Have a doctoral or first professional degree	
		Yes	No
All program areas	412,424	77.6	22.4
Business, law and communications	45,682	74.8	25.2
Humanities	54,093	80.1	19.9
English and literature	23,063	74.4	25.6
Foreign languages	12,000	78.3	21.6
History	11,383	88.6	11.4
Philosophy and religion	7,646	87.2	12.9
Natural sciences and engineering	100,044	87.8	12.2
Social sciences and education	78,156	84.7	15.3
All other program areas*	134,447	65.9	34.1

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 4.—Percentage of full-time instructional faculty and staff in 4-year institutions, by sex and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Sex	
		Male	Female
All program areas	412,424	70.2	29.8
Business, law and communications	45,682	72.9	27.1
Humanities	54,093	62.2	37.8
English and literature	23,063	53.3	46.7
Foreign languages	12,000	50.0	50.0
History	11,383	76.3	23.7
Philosophy and religion	7,646	87.3	12.7
Natural sciences and engineering	100,044	85.5	14.5
Social sciences and education	78,156	65.7	34.3
All other program areas*	134,447	63.8	36.2

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 5.—Percentage of full-time instructional faculty and staff in 4-year institutions, by race/ethnicity and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Race/ethnicity				
		American Indian/ Alaskan Native	Asian/ Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic
All program areas	412,424	0.3	5.8	4.9	2.2	86.8
Business, law and communications	45,682	0.5	5.2	4.9	1.3	88.1
Humanities	54,093	0.3	3.4	4.2	3.9	88.2
English and literature	23,063	0.5	1.8	5.2	1.8	90.8
Foreign languages	12,000	0.1	8.6	1.7	11.8	77.8
History	11,383	0.4	2.2	6.2	1.6	89.5
Philosophy and religion	7,646	0.0	1.6	2.0	1.5	94.9
Natural sciences and engineering	100,044	0.3	11.1	3.5	1.9	83.3
Social sciences and education	78,156	0.4	2.4	6.9	2.2	88.0
All other program areas*	134,447	0.3	4.9	5.0	2.2	87.6

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 6.—Percentage of full-time instructional faculty and staff in 4-year institutions, by age and program area:
Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Average age	Age distribution					
			Under 35	35-44	45-54	55-64	65-70	71 or older
All program areas	412,424	47.9	8.4	30.6	34.8	21.3	4.1	0.8
Business, law and communications	45,682	47.2	8.9	33.4	34.6	17.1	4.7	1.3
Humanities	54,093	49.3	7.1	23.3	39.4	25.1	4.2	0.9
English and literature	23,063	49.2	6.7	23.5	41.2	22.8	5.1	0.7
Foreign languages	12,000	48.8	8.2	24.4	37.8	24.8	2.5	2.2
History	11,383	50.3	6.4	17.9	41.4	31.2	2.9	0.2
Philosophy and religion	7,646	48.7	7.8	28.8	33.7	23.3	6.2	0.2
Natural sciences and engineering	100,044	47.9	9.1	31.9	31.9	21.9	4.4	0.9
Social sciences and education	78,156	48.7	6.6	28.2	37.7	22.8	4.1	0.6
All other program areas*	134,447	47.1	9.5	33.2	33.5	19.8	3.5	0.5

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 7.—Percentage of full-time instructional faculty and staff in 4-year institutions, by age and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Age	
		Under 55	55 and older
All program areas	412,424	73.9	26.1
Business, law and communications	45,682	76.9	23.1
Humanities	54,093	69.8	30.1
English and literature	23,063	71.4	28.6
Foreign languages	12,000	70.4	29.6
History	11,383	65.7	34.3
Philosophy and religion	7,646	70.3	29.7
Natural sciences and engineering	100,044	72.8	27.2
Social sciences and education	78,156	72.5	27.5
All other program areas*	134,447	76.2	23.8

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 8.—Percentage of full-time instructional faculty and staff in 4-year institutions, by citizenship status and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Citizenship status	
		Citizen	Non-citizen
All program areas	412,424	92.4	7.6
Business, law and communications	45,682	93.1	6.9
Humanities	54,093	93.0	7.0
English and literature	23,063	97.7	2.3
Foreign languages	12,000	80.9	19.1
History	11,383	96.6	3.4
Philosophy and religion	7,646	92.7	7.3
Natural sciences and engineering	100,044	87.5	12.5
Social sciences and education	78,156	94.6	5.4
All other program areas*	134,447	94.2	5.8

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 9.—Percentage of full-time instructional faculty and staff in 4-year institutions, by principal activity and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Principal activity			
		Teaching	Research	Administration	Other ¹
All program areas	412,424	70.7	12.3	9.6	7.4
Business, law and communications	45,682	80.4	6.8	9.7	3.0
Humanities	54,093	85.3	2.8	10.5	1.3
English and literature	23,063	85.5	1.6	11.7	1.2
Foreign languages	12,000	84.7	4.5	9.0	1.7
History	11,383	87.5	2.6	8.6	1.3
Philosophy and religion	7,646	82.6	4.2	12.2	1.0
Natural sciences and engineering	100,044	66.4	24.1	6.3	3.2
Social sciences and education	78,156	76.9	7.4	11.5	4.2
All other program areas ²	134,447	61.1	12.0	10.6	16.3

¹Other includes technical activities (e.g., programmer, technician, chemist, engineer, etc.), clinical service, community/public service, on sabbatical from this institution, or other (includes subsidized performer, artist in residence, etc.).

²Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 10.—Percentage distribution of full-time instructional faculty and staff in 4-year institutions, by time allocation and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Percentage of time spent on:			
		Teaching activities ¹	Research activities ²	Administration activities	Other activities ³
All program areas	412,424	50.4	21.3	13.3	14.8
Business, law and communications	45,682	54.1	18.3	12.4	15.0
Humanities	54,093	59.7	17.8	13.1	9.1
English and literature	23,063	61.5	14.8	13.4	9.8
Foreign languages	12,000	61.5	18.5	11.6	8.1
History	11,383	56.7	20.3	13.4	9.5
Philosophy and religion	7,646	55.9	21.7	14.0	8.4
Natural sciences and engineering	100,044	49.7	28.9	11.1	10.2
Social sciences and education	78,156	51.8	19.6	14.6	13.8
All other program areas ⁴	134,447	45.1	19.1	14.7	20.9

¹Teaching activities include teaching, grading papers, preparing courses; developing new curricula; advising or supervising students; working with student organizations or intramural athletics.

²Research activities include research; reviewing or preparing articles or books; attending or preparing for professional meetings or conferences; reviewing proposals; seeking outside funding; giving performances or exhibitions in the fine or applied arts, or giving speeches.

³Other activities include professional growth (including taking courses, pursuing an advanced degree; other professional development activities, such as practice or activities to remain current in your field); administration; outside consulting or freelance work; and service/other non-teaching activities (including providing legal or medical services or psychological counseling to clients or patients; paid or unpaid community or public service, service to professional societies/ associations; other activities or work).

⁴Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 11.—Mean hours worked, mean classroom hours, and mean student contact hours per week for full-time instructional faculty and staff in 4-year institutions, by program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Mean hours worked per week	Mean classroom hours per week	Mean student contact hours ¹ per week
All program areas	412,424	54.3	9.5	302.9
Business, law and communications	45,682	53.1	8.9	295.6
Humanities	54,093	52.1	9.6	257.8
English and literature	23,063	52.4	9.9	239.2
Foreign languages	12,000	50.4	9.8	182.0
History	11,383	53.0	8.9	345.9
Philosophy and religion	7,646	52.7	9.4	305.8
Natural sciences and engineering	100,044	55.6	8.3	314.5
Social sciences and education	78,156	53.8	9.2	294.3
All other program areas ²	134,447	54.9	10.8	323.8

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

²Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 12.—Percentage of full-time instructional faculty and staff in 4-year institutions, by level of satisfaction with workload and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Satisfaction with workload			
		Very dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Very satisfied
All program areas	412,424	9.6	22.6	40.6	27.2
Business, law and communications	45,682	6.8	18.8	42.2	32.2
Humanities	54,093	12.6	24.0	36.8	26.6
English and literature	23,063	12.0	24.3	37.5	26.2
Foreign languages	12,000	12.7	26.4	35.0	25.9
History	11,383	13.6	19.8	35.6	30.9
Philosophy and religion	7,646	12.8	25.6	39.1	22.5
Natural sciences and engineering	100,044	8.2	21.6	41.2	29.1
Social sciences and education	78,156	9.3	22.2	41.8	26.7
All other program areas*	134,447	10.5	24.4	40.5	24.6

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 13.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion of pressure to increase workload and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of pressure to increase workload		
		Worsened	Stayed the same	Improved
All program areas	412,424	55.3	35.4	9.4
Business, law and communications	45,682	49.3	38.7	12.0
Humanities	54,093	53.4	36.1	10.6
English and literature	23,063	57.3	33.4	9.3
Foreign languages	12,000	50.6	38.9	10.5
History	11,383	52.2	36.2	11.6
Philosophy and religion	7,646	48.1	39.2	12.7
Natural sciences and engineering	100,044	53.8	38.1	8.1
Social sciences and education	78,156	55.2	34.6	10.2
All other program areas*	134,447	59.3	32.3	8.4

*Includes individuals who did not designate a program area of instruction.

NOTES: Because of rounding, detail may not add to totals. Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 14.—Mean number of publications and presentations in the previous two years by full-time instructional faculty and staff in 4-year institutions, by type of activity and program area: Fall 1992

Publications and presentations in previous 2-years							
Program area in 4-year institutions	Full-time instructional faculty and staff	Articles in refereed journals	Books and monographs ¹	Reviews	Technical reports ²	Presentations	
All program areas	412,424	2.2	0.7	0.5	1.8	3.9	
Business, law and communications	45,682	1.5	0.7	0.3	2.0	3.3	
Humanities	54,093	1.1	0.9	0.9	0.8	2.8	
English and literature	23,063	0.8	0.8	0.8	0.9	2.8	
Foreign languages	12,000	1.3	0.8	0.8	0.4	2.6	
History	11,383	1.2	1.0	1.6	0.9	2.4	
Philosophy and religion	7,646	1.3	1.1	0.7	1.0	3.7	
Natural sciences and engineering	100,044	3.6	0.5	0.3	2.1	3.8	
Social sciences and education	78,156	1.6	0.9	0.6	1.8	4.5	
All other program areas ³	134,447	2.2	0.7	0.4	1.8	4.3	

¹Includes chapters in edited volumes, textbooks, other books, and monographs.

²Includes articles published in nonrefereed or trade journals and research or technical reports disseminated internally or to clients.

³Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 15.—Mean number of total career publications and presentations by full-time instructional faculty and staff in 4-year institutions, by type of activity and program area: Fall 1992

Publications and presentations in career							
Program area in 4-year institutions	Full-time instructional faculty and staff	Articles in refereed journals	Books and monographs ¹	Reviews	Technical reports ²	Presentations	
All program areas	412,424	15.0	2.9	3.3	11.2	24.3	
Business, law and communications	45,682	7.2	2.5	2.3	12.5	17.8	
Humanities	54,093	6.7	3.4	7.4	5.6	16.5	
English and literature	23,063	5.1	3.1	6.1	7.1	17.0	
Foreign languages	12,000	7.3	3.0	5.5	2.0	13.9	
History	11,383	7.8	4.3	13.1	6.2	14.6	
Philosophy and religion	7,646	9.1	3.5	5.8	5.7	22.3	
Natural sciences and engineering	100,044	26.8	2.3	1.9	14.5	25.1	
Social sciences and education	78,156	11.0	3.9	4.2	11.0	29.9	
All other program areas ³	134,447	14.5	2.7	2.5	10.6	25.9	

¹Includes chapters in edited volumes, textbooks, other books, and monographs.

²Includes articles published in nonrefereed or trade journals and research or technical reports disseminated internally or to clients.

³Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 16.—Mean total earned income of full-time instructional faculty and staff in 4-year institutions, by source of income and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Total earned income	Basic salary from institution	Other income from institution	Outside consulting income	Other outside income
All program areas	412,424	\$63,997	\$51,067	\$4,471	\$2,432	\$6,027
Business, law and communications	45,682	69,011	52,717	5,020	4,060	7,215
Humanities	54,093	48,709	41,258	2,809	619	4,023
English and literature	23,063	47,426	39,007	2,890	821	4,709
Foreign languages	12,000	45,539	39,751	2,732	282	2,774
History	11,383	54,512	45,761	2,733	633	5,386
Philosophy and religion	7,646	48,912	43,705	2,799	520	1,888
Natural sciences and Engineering	100,044	64,187	52,824	4,623	2,454	4,287
Social sciences and education	78,156	57,467	45,667	4,470	2,822	4,508
All other program areas*	134,447	72,098	56,282	4,841	2,366	8,608

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 17.—Mean basic salary from institution for full-time instructional faculty and staff in 4-year institutions, by academic rank and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Total basic salary	Academic rank					Other rank or not applicable
			Full professor	Associate professor	Assistant professor	Instructor or lecturer		
All program areas	412,424	\$51,066	\$64,428	\$51,131	\$42,263	\$33,357	\$39,053	
Business, law and Communications	45,682	52,717	67,747	56,536	42,186	31,029	—	
Humanities	54,093	41,258	53,422	41,110	31,226	26,436	35,038	
English and literature	23,063	39,007	52,829	39,438	30,752	25,366	—	
Foreign languages	12,000	39,751	53,896	41,520	31,028	28,012	—	
History	11,383	45,760	52,998	44,862	31,788	—	—	
Philosophy and religion	7,646	43,705	55,161	40,169	32,361	—	—	
Natural sciences and engineering	100,044	52,824	63,799	51,050	41,742	33,500	45,675	
Social sciences and education	78,156	45,667	57,731	43,633	36,942	29,534	44,858	
All other program areas*	134,447	56,282	74,767	58,264	48,368	38,978	36,157	

—Too few cases for a reliable estimate.

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 18.—Percentage of full-time instructional faculty and staff in 4-year institutions, by level of satisfaction with salary and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Satisfaction with salary			
		Very dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Very satisfied
All program areas	412,424	19.0	28.0	38.4	14.6
Business, law and communications	45,682	18.2	26.7	39.0	16.1
Humanities	54,093	23.5	28.6	35.4	12.5
English and literature	23,063	24.5	29.0	36.5	10.0
Foreign languages	12,000	28.6	27.0	32.0	12.3
History	11,383	19.1	30.1	35.0	15.8
Philosophy and religion	7,646	19.1	27.2	38.2	15.5
Natural sciences and engineering	100,044	16.4	26.0	40.5	17.0
Social sciences and education	78,156	19.8	27.7	40.5	12.0
All other program areas*	134,447	18.8	29.8	36.6	14.8

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 19.—Percentage of full-time instructional faculty and staff in 4-year institutions, by level of satisfaction with benefits and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Satisfaction with benefits			
		Very dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Very satisfied
All program areas	412,424	7.5	19.0	45.0	28.5
Business, law and communications	45,682	8.9	18.7	44.2	28.2
Humanities	54,093	8.6	21.5	44.0	25.9
English and literature	23,063	9.8	22.5	42.9	24.9
Foreign languages	12,000	6.5	22.3	45.8	25.4
History	11,383	10.4	19.1	47.1	23.4
Philosophy and religion	7,646	6.0	21.0	39.8	33.3
Natural sciences and engineering	100,044	7.4	18.7	44.4	29.6
Social sciences and education	78,156	7.1	20.1	45.2	27.6
All other program areas*	134,447	7.0	17.7	46.0	29.3

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 20.—Percentage of full-time instructional faculty and staff in 4-year institutions, by whether engaged in professional research, writing, or creative works and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Any research, writing, or creative works	
		Yes	No
All program areas	412,424	78.0	22.0
Business, law and communications	45,682	73.1	26.9
Humanities	54,093	78.3	21.7
English and literature	23,063	77.6	22.4
Foreign languages	12,000	74.8	25.2
History	11,383	82.5	17.5
Philosophy and religion	7,646	79.4	20.6
Natural sciences and engineering	100,044	81.1	18.9
Social sciences and education	78,156	78.9	21.1
All other program areas*	134,447	76.7	23.3

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 21.—Percentage of full-time instructional faculty and staff in 4-year institutions, by participation in funded research or funded creative endeavors and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Any funded research	
		Yes	No
All program areas	412,424	33.7	66.3
Business, law and communications	45,682	18.6	81.4
Humanities	54,093	13.2	86.8
English and literature	23,063	12.9	87.1
Foreign languages	12,000	12.8	87.2
History	11,383	13.1	86.9
Philosophy and religion	7,646	14.6	85.4
Natural sciences and engineering	100,044	52.7	47.3
Social sciences and education	78,156	28.4	71.6
All other program areas*	134,447	36.0	64.0

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 22.—Percentage of full-time instructional faculty and staff in 4-year institutions, by participation in federally funded research and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Any federally funded research	
		Yes	No
All program areas	412,424	16.5	83.5
Business, law and communications	45,682	3.6	96.4
Humanities	54,093	2.1	97.9
English and literature	23,063	2.2	97.8
Foreign languages	12,000	3.0	97.0
History	11,383	0.7	99.3
Philosophy and religion	7,646	2.7	97.3
Natural sciences and engineering	100,044	35.0	65.0
Social sciences and education	78,156	11.1	88.9
All other program areas*	134,447	16.0	84.0

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 23.—Mean office hours of full-time instructional faculty and staff in 4-year institutions, by sex and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Total regularly scheduled office hours per week	Sex	
			Male	Female
All program areas	412,424	7.9	8.0	7.8
Business, law and communications	45,682	8.5	8.2	9.1
Humanities	54,093	6.5	6.7	6.2
English and literature	23,063	7.1	7.3	6.8
Foreign languages	12,000	5.6	5.7	5.6
History	11,383	6.5	6.7	6.0
Philosophy and religion	7,646	6.2	6.4	4.7
Natural sciences and engineering	100,044	6.8	6.9	6.0
Social sciences and education	78,156	8.0	8.1	7.9
All other program areas*	134,447	9.1	9.3	8.7

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 24.—Percentage of full-time instructional faculty and staff in 4-year institutions, by parents' level of education and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Highest education level of parents ¹		
		High	Medium	Low
All program areas	412,424	5.3	52.5	42.2
Business, law and communications	45,682	4.1	53.7	42.2
Humanities	54,093	4.8	53.2	42.0
English and literature	23,063	3.5	54.0	42.5
Foreign languages	12,000	5.2	53.7	41.1
History	11,383	5.8	51.4	42.7
Philosophy and religion	7,646	6.3	52.6	41.1
Natural sciences and engineering	100,044	5.0	52.8	42.2
Social sciences and education	78,156	5.4	49.9	44.7
All other program areas ²	134,447	6.2	53.2	40.7

¹Parents' level of education was calculated as the average of the respondent's mother's level of formal education and the respondent's father's level of formal education. Highest education level of parents was defined as low if parents had a high school education or below, as medium if parents had some college education or a bachelor's degree, and high if parents had more than a bachelor's degree.

²Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 25.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about teaching effectiveness as primary promotion criterion and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about teaching effectiveness as primary promotion criterion			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	412,424	9.2	17.0	35.7	38.1
Business, law and communications	45,682	6.9	16.6	33.2	43.4
Humanities	54,093	7.3	16.2	34.0	42.6
English and literature	23,063	4.8	14.3	32.9	48.0
Foreign languages	12,000	9.4	20.0	33.8	36.8
History	11,383	9.4	16.2	35.0	39.4
Philosophy and religion	7,646	8.1	16.0	35.8	40.2
Natural sciences and engineering	100,044	14.4	21.6	33.8	30.2
Social sciences and education	78,156	8.6	17.0	35.4	39.0
All other program areas*	134,447	7.3	14.1	38.8	39.8

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 26.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about research/publications as primary promotion criterion and program area: Fall 1992

criterion Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about research as primary promotion			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	412,424	25.6	35.1	31.3	8.0
Business, law and communications	45,682	28.7	37.8	26.2	7.3
Humanities	54,093	29.4	34.4	28.4	7.8
English and literature	23,063	35.0	35.7	25.1	4.2
Foreign languages	12,000	25.7	32.7	32.4	9.1
History	11,383	24.1	32.8	30.6	12.6
Philosophy and religion	7,646	26.2	35.7	28.6	9.6
Natural sciences and engineering	100,044	24.8	30.3	33.1	11.8
Social sciences and education	78,156	24.6	36.3	30.6	8.5
All other program areas*	134,447	24.3	37.4	33.1	5.2

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 27.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about whether research is rewarded more than teaching and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about whether research is rewarded more than teaching			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	412,424	19.2	20.3	25.4	35.1
Business, law and communications	45,682	19.5	23.7	24.8	32.0
Humanities	54,093	23.1	21.3	24.9	30.7
English and literature	23,063	22.9	21.2	23.8	32.2
Foreign languages	12,000	16.1	21.2	29.5	33.1
History	11,383	25.5	22.2	21.7	30.6
Philosophy and religion	7,646	31.0	20.5	25.7	22.8
Natural sciences and engineering	100,044	16.4	18.8	26.4	38.4
Social sciences and education	78,156	21.6	20.0	24.2	34.2
All other program areas*	134,447	18.2	20.0	25.7	36.1

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 28.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about whether state or federally mandated assessment requirements will improve the quality of undergraduate education and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about mandated assessments and education quality			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	412,424	37.0	32.3	25.0	5.8
Business, law and communications	45,682	41.3	31.5	22.0	5.2
Humanities	54,093	42.9	30.0	20.9	6.2
English and literature	23,063	41.2	32.0	22.0	4.8
Foreign languages	12,000	36.6	29.1	25.2	9.2
History	11,383	49.4	26.2	18.1	6.3
Philosophy and religion	7,646	48.5	31.0	14.8	5.7
Natural sciences and engineering	100,044	39.2	31.0	23.4	6.4
Social sciences and education	78,156	39.2	31.6	24.9	4.3
All other program areas*	134,447	30.3	34.7	28.9	6.2

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 29.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about whether female faculty members are treated fairly, sex, and program area: Fall 1992

Sex and program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about female faculty treated fairly			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
Male					
All program areas	289,689	4.3	14.0	39.5	42.1
Business, law and communications	33,297	4.1	11.3	36.9	47.8
Humanities	33,658	4.5	16.8	36.8	41.9
English and literature	12,315	6.3	15.3	36.6	41.8
Foreign languages	5,991	2.2	11.2	37.7	48.9
History	8,677	3.5	14.7	38.2	43.6
Philosophy and religion	6,675	4.7	27.3	34.3	33.7
Natural sciences and engineering	85,587	2.4	13.1	39.3	45.2
Social sciences and education	51,379	5.3	14.0	40.1	40.6
All other program areas*	85,768	5.8	15.0	41.4	37.8
Female					
All program areas	122,735	15.5	29.8	37.2	17.5
Business, law and communications	12,386	16.1	30.0	36.6	17.3
Humanities	20,435	15.9	30.3	36.4	17.5
English and literature	10,748	17.0	32.7	35.6	14.7
Foreign languages	6,009	13.2	26.5	39.4	20.9
History	2,706	18.8	23.9	36.0	21.4
Philosophy and religion	972	11.7	43.9	28.4	16.0
Natural sciences and engineering	14,457	7.9	24.5	43.6	24.0
Social sciences and education	26,777	16.7	32.3	36.0	15.1
All other program areas*	48,679	16.8	29.7	36.4	17.1

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 30.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about treatment of minority faculty, minority status, and program area: Fall 1992

Minority status and program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about minority faculty treated fairly			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
Minority					
All program areas	54,613	11.8	20.6	38.8	28.8
Business, law and communications	5,443	12.0	21.6	30.3	36.1
Humanities	6,354	10.2	19.7	39.4	30.7
English and literature	2,110	16.9	18.0	35.4	29.7
Foreign languages	2,658	6.1	25.5	40.4	28.0
History	1,193	8.0	12.7	34.6	44.8
Philosophy and religion	—	—	—	—	—
Natural sciences and engineering	16,717	8.9	16.7	41.2	33.2
Social sciences and education	9,353	16.6	22.9	34.9	25.6
All other program areas*	16,744	12.6	23.4	41.0	23.0
Nonminority					
All program areas	357,811	4.8	13.3	41.9	40.0
Business, law and communications	40,239	4.8	13.8	37.4	43.9
Humanities	47,739	6.0	16.1	40.2	37.8
English and literature	20,953	7.0	16.4	39.7	36.9
Foreign languages	9,342	5.1	14.2	40.7	40.1
History	10,190	5.1	14.5	41.4	39.0
Philosophy and religion	7,253	5.6	20.0	39.1	35.3
Natural sciences and engineering	83,327	2.0	9.1	45.0	43.9
Social sciences and education	68,803	7.0	15.5	40.7	36.8
All other program areas*	117,703	5.0	13.8	42.6	38.7

—Too few sample cases for a reliable estimate.

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 31.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about choosing academic career again and program area: Fall 1992

again Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about respondent choosing academic career			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	412,424	4.1	7.5	25.3	63.1
Business, law and communications	45,682	4.3	6.3	23.4	65.9
Humanities	54,093	4.8	7.8	22.0	65.4
English and literature	23,063	4.7	7.8	23.4	64.2
Foreign languages	12,000	5.9	8.8	22.6	62.8
History	11,383	5.8	9.1	19.1	66.0
Philosophy and religion	7,646	2.0	4.4	21.8	71.9
Natural sciences and engineering	100,044	4.1	7.2	25.0	63.7
Social sciences and education	78,156	4.0	7.0	22.4	66.6
All other program areas*	134,447	3.6	8.4	29.1	58.8

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 32.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the quality of students who choose to pursue academic careers in their field in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of quality of students in field		
		Worsened	Stayed the same	Improved
All program areas	412,424	28.8	41.3	29.9
Business, law and communications	45,682	25.3	43.6	31.1
Humanities	54,093	26.6	45.5	27.9
English and literature	23,063	25.8	46.7	27.5
Foreign languages	12,000	30.8	46.6	22.5
History	11,383	23.3	42.3	34.3
Philosophy and religion	7,646	27.3	45.1	27.6
Natural sciences and engineering	100,044	36.5	40.9	22.6
Social sciences and education	78,156	22.7	42.3	34.9
All other program areas*	134,447	28.8	38.4	32.8

*Includes individuals who did not designate a program area of instruction.

NOTES: Because of rounding, detail may not add to totals. Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 33.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about opportunities junior faculty have for advancement in field in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of junior faculty advancement in field		
		Worsened	Stayed the same	Improved
All program areas	412,424	29.7	46.1	24.2
Business, law and communications	45,682	30.4	47.5	22.2
Humanities	54,093	31.3	43.5	25.2
English and literature	23,063	33.4	39.8	26.8
Foreign languages	12,000	28.0	45.5	26.5
History	11,383	30.8	45.7	23.6
Philosophy and religion	7,646	31.2	47.9	20.9
Natural sciences and engineering	100,044	33.2	44.2	22.7
Social sciences and education	78,156	28.1	45.7	26.2
All other program areas*	134,447	27.0	48.4	24.6

*Includes individuals who did not designate a program area of instruction.

NOTES: Because of rounding, detail may not add to totals. Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 34.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about professional competence of individuals entering their field in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of competence of those entering field		
		Worsened	Stayed the same	Improved
All program areas	412,424	11.8	50.6	37.5
Business, law and communications	45,682	10.3	47.8	41.9
Humanities	54,093	13.8	49.3	36.9
English and literature	23,063	14.7	48.2	37.1
Foreign languages	12,000	14.2	46.8	39.0
History	11,383	12.8	51.7	35.5
Philosophy and religion	7,646	11.8	53.1	35.1
Natural sciences and engineering	100,044	12.0	53.8	34.2
Social sciences and education	78,156	11.6	50.2	38.2
All other program areas*	134,447	11.6	50.0	38.4

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals. Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 35.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the ability of the institution in recent years to meet the educational needs of entering students and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of institution meeting student needs		
		Worsened	Stayed the same	Improved
All program areas	412,424	24.3	38.1	37.6
Business, law and communications	45,682	22.6	36.9	40.5
Humanities	54,093	29.3	33.7	37.1
English and literature	23,063	32.0	32.2	35.8
Foreign languages	12,000	22.9	39.3	37.8
History	11,383	29.8	33.6	36.6
Philosophy and religion	7,646	30.1	29.3	40.6
Natural sciences and engineering	100,044	25.8	39.6	34.5
Social sciences and education	78,156	24.7	35.8	39.5
All other program areas*	134,447	21.4	40.5	38.1

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals. Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 36.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the ability of faculty to obtain external funding and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of faculty ability to obtain external funding		
		Worsened	Stayed the same	Improved
All program areas	412,424	45.9	31.8	22.3
Business, law and communications	45,682	41.2	38.2	20.6
Humanities	54,093	42.5	34.2	23.3
English and literature	23,063	42.9	33.1	24.0
Foreign languages	12,000	43.8	33.9	22.2
History	11,383	41.0	38.6	20.4
Philosophy and religion	7,646	41.0	31.7	27.4
Natural sciences and engineering	100,044	53.4	26.1	20.5
Social sciences and education	78,156	38.2	37.6	24.2
All other program areas*	134,447	47.8	29.5	22.7

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals. Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 37.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the quality of undergraduate education at the institution in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of undergraduate education at institution		
		Worsened	Stayed the same	Improved
All program areas	412,424	19.2	45.8	35.0
Business, law and communications	45,682	19.3	42.7	38.0
Humanities	54,093	24.6	42.2	33.3
English and literature	23,063	24.6	40.9	34.5
Foreign languages	12,000	23.0	47.6	29.5
History	11,383	24.8	42.0	33.2
Philosophy and religion	7,646	26.5	37.8	35.7
Natural sciences and engineering	100,044	20.3	50.3	29.4
Social sciences and education	78,156	18.5	42.8	38.7
All other program areas*	134,447	16.7	46.7	36.6

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals. Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 38.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the atmosphere for free expression of ideas at the institution in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of atmosphere for free expression		
		Worsened	Stayed the same	Improved
All program areas	412,424	17.9	61.4	20.7
Business, law and communications	45,682	21.8	60.5	17.7
Humanities	54,093	19.5	61.8	18.6
English and literature	23,063	22.7	58.3	19.1
Foreign languages	12,000	19.9	62.5	17.6
History	11,383	16.0	65.2	18.8
Philosophy and religion	7,646	14.6	66.8	18.7
Natural sciences and engineering	100,044	15.4	66.9	17.7
Social sciences and education	78,156	18.4	60.4	21.2
All other program areas*	134,447	17.4	58.0	24.6

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals. Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table 39.—Percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the quality of research at the institution in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of quality of research at institution		
		Worsened	Stayed the same	Improved
All program areas	412,424	7.6	47.3	45.1
Business, law and communications	45,682	8.0	45.2	46.8
Humanities	54,093	8.7	50.4	40.9
English and literature	23,063	9.0	49.9	41.1
Foreign languages	12,000	7.1	53.9	39.1
History	11,383	9.4	49.3	41.2
Philosophy and religion	7,646	9.4	47.7	42.8
Natural sciences and engineering	100,044	7.5	44.1	48.4
Social sciences and education	78,156	7.1	49.1	43.8
All other program areas*	134,447	7.4	48.0	44.6

*Includes individuals who did not designate a program area of instruction.

NOTE: Because of rounding, detail may not add to totals. Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Appendix A:
Technical Notes

Technical Notes

Overview

The 1992–93 National Study of Postsecondary Faculty (NSOPF–93) was sponsored by the U.S. Department of Education's National Center for Education Statistics (NCES). The study received additional support from the National Science Foundation (NSF) and the National Endowment for the Humanities (NEH). It was conducted by NORC, the National Opinion Research Center at the University of Chicago, under contract to NCES.

The first cycle of NSOPF was conducted in 1987–88 (NSOPF–88) with a sample of 480 institutions (including 2-year, 4-year, doctoral-granting, and other colleges and universities), over 3,000 department chairpersons, and over 11,000 faculty. The second cycle of NSOPF, conducted in 1992–93, was limited to surveys of institutions and faculty, but with a substantially expanded sample of 974 public and private nonproprietary higher education institutions and 31,354 faculty. The study was designed to provide a national profile of faculty: their professional backgrounds, responsibilities, workloads, salaries, benefits, and attitudes.

Institution Universe

The definition of the institution universe for NSOPF–93 was identical to the one used in NSOPF–88. It included institutions in the traditional sector of higher education: that is, institutions whose accreditation at the college level is recognized by the U.S. Department of Education, that provide formal instructional programs of at least two 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.

Faculty Universe

Unlike NSOPF–88, which was limited to faculty whose regular assignment included instruction, the faculty universe for NSOPF–93 was expanded to include all those who were designated as faculty, whether or not their responsibilities included instruction, and other (non-faculty) personnel with instructional responsibilities. Under this definition, researchers and administrators and other institutional staff who hold faculty positions, but who do not teach, were included in the sample. Instructional staff without faculty status also were included. In summary, the eligible universe was defined to include:

- full- and part-time personnel whose regular assignment included instruction;
- full- and part-time individuals with faculty status whose regular assignment did not include instruction;

- permanent and temporary personnel with any instructional duties, including adjunct, acting, or visiting status;
- faculty and instructional personnel on sabbatical leave.

Excluded from the NSOPF–93 universe of faculty were:

- faculty and other personnel with instructional duties outside the U.S. (but not on sabbatical leave);
- temporary replacements for faculty and other instructional personnel;
- faculty and other instructional and non-instructional personnel on leave without pay;
- graduate teaching assistants;
- military personnel who taught only ROTC courses;
- instructional personnel supplied by independent contractors.

Sample Design

A two-stage stratified clustered probability design was used to select the NSOPF–93 sample. The first-stage NSOPF–93 sampling frame consisted of the 3,256 postsecondary institutions that provided formal instructional programs of at least two years' duration and that were public or private, not-for-profit, drawn from the 1991–92 IPEDS (Integrated Postsecondary Education Data System⁷) Institutional Characteristics Survey. The sampling frame was sorted by type and control of institution to create groups of institutions called strata. The selection of institutions occurred independently within each stratum.

A modified Carnegie⁸ classification system was used to stratify institutions according to cross-classification of control by type, first into 17 cells, and then into 15 strata. There were two levels of control, public and private, and nine types of institutions including:

⁷IPEDS is a recurring set of surveys developed and maintained by NCES. Postsecondary education is defined by IPEDS as “the provision of a formal instructional program whose curriculum is designed primarily for students who have completed the requirements for a high school diploma or its equivalent.” This definition includes programs whose purpose is academic, vocational and continuing professional education and excludes a vocational and adult basic education. IPEDS encompasses all institutional providers of postsecondary education in the United States and its outlying areas. For more information on IPEDS data used in this study, see National Center for Education Statistics, *IPEDS Manual for Users* (Washington, D.C.: National Center for Education Statistics, 1991). This manual is also distributed with IPEDS data on CD-ROM.

⁸See *A Classification of Institutions of Higher Education*, (Princeton, N.J.: The Carnegie Foundation for the Advancement of Teaching), 1987. Out of the 3,256 institutions, 278 could not be classified. Carnegie staff supplied updates for 81 institutions; the remaining group of unclassified institutions were designated as “unknown” on the NSOPF–93 sampling frame.

1. Research universities (public or private): These institutions offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. They award 50 or more doctoral degrees each year. There were 104 research institutions in the NSOPF-93 sampling frame;
2. Other Ph.D. (public or private): These institutions offer a full range of baccalaureate programs and are committed to graduate education through the doctorate. They award annually at least 10 doctoral degrees (in three or more disciplines), or 20 or more doctoral degrees in one or more disciplines. There were 109 other Ph.D. institutions in the NSOPF-93 sampling frame;³
3. Comprehensive colleges and universities (public or private): These institutions offer a full range of baccalaureate programs and are committed to graduate education through the master's degree. They award 20 or more master's degrees annually in one or more disciplines. There were 578 comprehensive institutions in the NSOPF-93 sampling frame;
4. Liberal arts colleges (public or private): These institutions are primarily undergraduate colleges with major emphasis on baccalaureate degree programs. There were 578 liberal arts institutions in the NSOPF-93 sampling frame;
5. Two-year colleges (public or private): These institutions offer associate of arts certificate or degree programs and, with few exceptions, offer no baccalaureate degrees. There were 1,107 2-year institutions in the NSOPF-93 sampling frame;
6. Independent medical institutions (public or private): Those not considered as part of a 4-year college or university. There were 52 independent medical institutions in the NSOPF-93 sampling frame;
7. Religious colleges (private only): There were 309 religious institutions in the NSOPF-93 sampling frame;
8. Other (public/private): Includes a wide range of professional and other specialized degree-granting colleges and universities. There were 222 other specialized institutions in the NSOPF-93 sampling frame; and
9. Unknown (public/private): There were 197 institutions on the NSOPF-93 sampling frame that did not have a Carnegie classification.

First Stage Sampling

Since there are no public religious institutions, the cross-classification of control by type had 17 cells. However, the desired sampling rates for three of the cells—public research, private research, and public “other Ph.D.”—were so close to 100 percent that it was appropriate to sample all of the institutions in those cells. Therefore, a single sampling stratum was constructed for these institutions, and all institutions were selected in that stratum (i.e., selected with

certainty). Grouping these institutions together was appropriate from a sampling design and selection standpoint, although this stratum does not comprise a group of analytic interest.

Institutions in the 14 other strata⁹ were referred to as “noncertainty” institutions. The stratum sample sizes, determined by a preliminary pass through the 14 strata, were allocated proportional to the total estimated number of faculty and instructional staff in each stratum. In those strata, the first stage selections were made using stratified sampling with probabilities within each stratum proportional to the expected numbers of faculty and instructional staff. Systematic probability proportional to size (PPS) sampling was used with measure of size (MOS) equal to 41 or the estimated number of faculty (and instructional staff), whichever was larger. MOS was defined as the total number of faculty and instructional staff as specified in the most recent IPEDS Fall Staff Survey available (1989–90). Of the 3,256 institutions listed on the sample frame, 3,106 had a MOS available. For the remaining 150 (4.6 percent) institutions for which faculty data were missing, MOS was imputed.

In systematic sampling, the order in which the institutions are listed on the frame is important, as it reflects an implicit stratification. Within each stratum the institutions were sorted by MOS in a “serpentine” manner, i.e., if one stratum was in ascending order by MOS, the next was descending, the one after that was ascending, and so on. This procedure helped to balance the sample with respect to institution size (based on number of faculty). A total of 789 institutions were initially selected and later supplemented with 185 institutions for a total of 974 selected in the first-stage.

Institutions were selected in two replicates. The first replicate “Pool 1” contained the initial sample of noncertainty and certainty institutions. The second replicate “Pool 2” was sorted into random order within strata and contained only noncertainty institutions. Institutions that were determined ineligible or could not be recruited after extensive follow-up were replaced at random by institutions within the same explicit stratum in Pool 2. Replacement institutions for the certainty stratum were selected at random from similar strata. (“Other Ph.D.,” “Public Comprehensive,” and “Private Comprehensive” sampling strata were used for this purpose.)

Second Stage Sampling

At the second stage of sample selection, the NSOPF–93 sampling frame consisted of lists of faculty and instructional staff obtained from 817 participating institutions. Each institution was randomly assigned a target total sample size, say n , of either 41 or 42 faculty to yield the desired average sample size of 41.5. Whenever an institution had fewer than 42 individuals, all faculty

⁹The “noncertainty” sampling strata were broken down as follows: private, other Ph.D.; public, comprehensive; private, comprehensive; public, liberal arts; private, liberal arts; public, medical; private, medical; private, religious (there are no public religious colleges); public, two-year; private, two-year; public, other; private, other; public, unknown; and private, unknown.

and instructional staff were selected. Otherwise, the following oversampling sizes¹⁰ were used to select groups to ensure their adequate representation in the sample and to meet NSF and NEH analytic objectives: full-time females (3.36), blacks or Hispanics (5.60), Asians or Pacific Islanders (1.12), faculty in four NEH disciplines (2.24)—philosophy/religion, foreign languages, English language and literature, and history—and all others (0.00). All listed individuals who would qualify for more than one group were assigned to the group for which the oversampling rate (here defined as the oversample size divided by the number of individuals qualifying for the group) was largest. These five groups were used as strata for sampling faculty. The residual sample size (n minus the sum of the oversample sizes) was allocated across the five strata in proportion to the number of faculty in the strata. Then, the total sample in each stratum (consisting of the oversample size plus the proportionally allocated residual) was specified by simple random sampling without replacement, with the sampling independent from one faculty stratum to the next. For more details about second stage sampling, refer to the forthcoming *1993 National Study of Postsecondary Faculty: Methodology Report* [NCES 97-467].

Data Collection and Response Rates

Prior to data collection, it was first necessary to obtain cooperation from the sampled institutions. Each institution was asked to provide annotated lists of all faculty and instructional staff according to the eligibility (and oversampling) criteria needed for second stage sampling. Between October 1992 and early March 1993, 26 institutions in the original sample were replaced by randomly selected comparable institutions (from Pool 2): 5 because they were ineligible and 21 because they were determined to be final refusals. After trying to gain cooperation from the initial sample of 789 institutions for almost six months, it was determined that a certain number of other institutions were unlikely to participate in the study. These institutions were identified in March 1993 and 159 additional institutions were randomly selected within the relevant strata (from Pool 2).

Project staff tried to gain cooperation from original and replacement (or supplemental) institutions simultaneously.¹¹ Of the 974 institutions in the total sample, 12 (1.2 percent) were found to be ineligible.¹² Ineligible institutions included those which had closed or which had merged with other institutions, satellite campuses that were not independent units, and institutions that did not grant any degrees or certificates. A total of 817 eligible institutions agreed to participate (i.e., to

¹⁰The oversample size for a group is the difference between the expected sample size for the group and the expected sample size that would have been attained if all faculty had been sampled at the same rate, i.e., in the absence of oversampling.

¹¹Since the Pool 2 institutions were additional random selections into the sample, the effect of using Pool 2 institutions is no different than if a larger number of institutions had been selected initially and the pools had not been used at all. The response rates for Pool 1 institutions, and for Pool 1 and Pool 2 institutions combined, have the same expected value. Since it is based on a larger sample, the response rate for Pool 1 and Pool 2 combined is a more accurate estimator of the population response rate.

¹²When ineligible institutions were excluded from the sample, the sum of weights for eligible institutions was 3,188, rather than the 3,256 institutions specified in the sampling frame.

provide a list of faculty and instructional staff), for a list participation rate of 84.9 percent (83.4 percent, weighted).

Faculty data collection was conducted between January and December 1993, with a two-month hiatus during July and August while most faculty and instructional staff were on summer break. The faculty survey relied on a multi-modal data collection design which combined an initial mailed questionnaire with mail and telephone prompting supplemented by computer-assisted telephone interviewing (CATI). Questionnaire and follow-up mailings were sent out in large waves between January and July 1993 as the lists were received, sampled, and processed. Coordinators at the participating institutions who signed NCES's affidavit of nondisclosure and confidentiality also assisted in the effort by prompting nonrespondents to return their completed questionnaires to NORC. Of the 31,354 faculty and instructional staff sampled,¹³ 1,590 (5.1 percent) were found to be ineligible, which included staff who were deceased or no longer at the institution, staff who did not have a Fall 1992 teaching assignment, and teaching assistants. A total of 25,780 questionnaires were completed for a response rate of 86.6 percent (84.4 percent, weighted). The overall faculty response rate (institution list participation rate multiplied by the faculty questionnaire response rate) was 73.5 percent (70.4 percent, weighted). The unweighted faculty response rate for public 4-year institutions was 87.8 percent and 84.2 percent for private 4-year institutions.

Institution data collection was conducted between September 1993 and May 1994. The institution survey combined a mailed questionnaire with mail and telephone prompting directed at both participating (817 institutions which submitted faculty lists) and nonparticipating institutions (145 institutions), for an eligible sample of 962 institutions. For 385 (44 percent) of the self-administered questionnaires completed, the institutional coordinator who had provided the original list was the main respondent, although other institution staff usually contributed to the effort. A total of 872 institution questionnaires were completed for a response rate of 90.6 percent (93.5 percent, weighted).

Best Estimates of Faculty

In comparing the weighted estimates based on the lists of faculty and instructional staff provided by institutions with those based on the institution questionnaires, several patterns emerged that were contrary to expected results. Although some variance in the estimates based on the lists and the institution questionnaires was expected, the magnitude of the difference was larger than anticipated. This, in and of itself, was not seen as a problem since the estimates were from two different sources. What was less plausible were the trends in the estimates of part-time faculty between NSOPF-88 and NSOPF-93. The institution survey showed a 5 percent increase in the estimate of part-time faculty between the fall of 1987 and the fall of 1992. The faculty survey, based on the lists of faculty and instructional staff provided by the institution, showed no change

¹³Initially, 33,354 faculty were sampled. To reduce costs, 2,000 nonresponding faculty and instructional staff were randomly eliminated from the sample through subsampling in August 1993. A higher proportion of part-time faculty and instructional staff were eliminated than remained; this was taken into account in the calculation of faculty weights.

in the percentage of part-time faculty between the two points in time. The weighted estimates based on the lists also showed a 37.5 percent decrease in the number of health sciences faculty and instructional staff from the fall of 1987 to the fall of 1992. Institution recontact was necessary to resolve these discrepancies and to determine the “best estimates” of total, full- and part-time faculty and instructional staff.

The best estimates were derived following a reconciliation and verification recontact with a subset of institutions which had discrepancies of 10 percent or greater between the total number enumerated on the faculty list used for sampling and the total number reported on the institution questionnaire. The recontact effort also included 120 institutions identified by NCES as employing health sciences faculty.

Of the 760 “matched” institutions¹⁴ (i.e., institutions which provided both a completed institution questionnaire and a list of faculty and instructional staff), 450 (59 percent) had a discrepancy of 10 percent or more between the questionnaire and the list, and 61 of the 450 had health sciences faculty.

Of the 817 institutions who provided lists of faculty and instructional staff, 509 institutions (450 with 10 percent or greater discrepancies plus an additional 59 institutions with health sciences faculty) were recontacted. Before recontacting each institution, each discrepancy was reviewed to eliminate obvious clerical or list posting errors. A best estimate was obtained for 492 (or 96.7 percent) of these institutions.

It is important to point out that 118 of the reconciled institutions were unable to provide a specific reason for the discrepancies. For the 374 that provided reasons, the most commonly cited reason was the omission of some part- or full-time faculty from the list provided for sampling faculty. This occurred for 107 institutions. Some institutions included certain types of medical faculty in one set of estimates, but not in the other. Downsizing affected faculty counts at several institutions. Another factor in the discrepancies was the time interval (in some instances a year or more) between the time the list of faculty and instructional staff was compiled and the time the institution questionnaire was completed. The list did not always include new hires for the fall term, which were counted in the institution questionnaire. Some institutions provided “full-time equivalents” (FTE's) on the institution questionnaire rather than the actual headcount of part-time staff that was requested. In some instances, however, where part-time faculty and instructional staff were over-reported (on either the list or the questionnaire) the reason involved confusion between the pool of part-time or temporary staff employed by, or available to, the institution and the number actually employed during the fall semester.

¹⁴A total of 929 of the 962 eligible institutions (96.6 percent) participated in the survey in some way—either by completing an institution questionnaire or by submitting a faculty list. A total of 872 institutions completed institution questionnaires and 817 institutions provided faculty lists. Of the 817 institutions which submitted faculty lists, 760 of them also completed an institution questionnaire. Therefore, “matched” data—counts of the total number of faculty at the institution drawn from the faculty list and from the institution questionnaire—are available for only these 760 institutions.

NORC used data gathered in the recontacting effort to adjust the original list of faculty and instructional staff to incorporate recontacted institutions' best estimates into the final estimates. The first step in this process used as its starting point the original list, which reported totals for full-, part-time, and total faculty and instructional staff for each of the 817 participating institutions. However, in some cases, institutions which supplied a total number did not supply a breakdown of the total number into full- and part-time components.¹⁵ For these institutions, NORC used a two-step procedure of deriving best estimates: first, deriving “best total estimates” and, second, deriving “best full-time estimates.” Best estimates for part-time staff were simply calculated by subtracting the number of full-time staff from the total number at each institution.

The next step in calculating best total estimates involved the substitution of the verified counts from the 492 institutions NORC recontacted. If an institution verified the counts from its original faculty list or was unable to confirm other estimates, the original list estimate was retained as the best estimate. If the institution verified the institution questionnaire data as a more accurate estimate, questionnaire data were substituted for original list data as the best estimate. If the institution provided a different set of estimates, the new estimates were substituted for counts based on original list data.

Institutions which were nonrespondents in the verification effort and which had discrepancies of 10 percent or greater between the estimates of faculty and instructional staff based on the lists provided by institutions and those based on the institution questionnaire were adjusted by multiplying the ratio of verified counts to original counts for the 492 recontacted institutions by the original list count. Original list data were used for the institutions which were not selected for recontact. For all 817 institutions, the source of the final best estimates was as follows:

- 460 (56.3 percent) used original list data;
- 280 (34.3 percent) used questionnaire data;
- 61 (7.5 percent) used new estimates (other than questionnaire or original list data); and
- 16 (1.9 percent) were ratio-adjusted.

During the reconciliation effort, some ineligible faculty and instructional staff were excluded from the institution-level totals. This happened if recontacted institutions reported that the original faculty list had included ineligible faculty. This information was supplied by 23 institutions. It is assumed that faculty population estimates derived from the best estimate calculations include only eligible faculty. For more discussion of the verification process and calculation of best estimates, see the *1993 National Study of Postsecondary Faculty: Methodology Report* [NCES 97–467].

Weight Calculations

The weights for both the institution and faculty samples were designed to adjust for differential probabilities of selection and nonresponse. (For a detailed description of the weighting process, see the *1993 National Study of Postsecondary Faculty: Methodology Report* [NCES 97–467].)

¹⁵Eighty-four of the 817 institutions did not specify the employment status (i.e., full- or part-time) of faculty and instructional staff on their original lists.

Weights for the institution sample were constructed in three steps. First, the institution's base weight—equal to the reciprocal of its probability of selection into the sample—was calculated. (This step reflected the several steps used to select the institutions from sample Pool 1 and sample Pool 2.) Second, the base weights were adjusted for institutions that had merged and so were effectively listed multiple times in the sampling frame.¹⁶ Finally, a nonresponse adjustment factor was applied to the weights to compensate for institution-level nonresponse. A review of the data indicated that post-stratification adjustment was not needed.

Weights for the faculty sample were computed in four steps. First, the base conditional selection probabilities were calculated; these reflected the selection rates for faculty members given that their institutions were sampled. In this step, the initial selection probabilities also were adjusted to reflect the exclusion of a random subsample of faculty. (See footnote 8.) Then the reciprocals of these selection probabilities were calculated to yield base conditional weights. Second, these weights were multiplied by the first-stage nonresponse-adjusted weights to yield second-stage sampling weights adjusted for institutional nonresponse. Third, a second-stage nonresponse adjustment factor was applied to these latter weights to compensate for nonresponse by faculty members. Fourth, the nonresponse-adjusted weights were poststratified to the best estimates of total, full-, and part-time faculty and instructional staff by sampling stratum.

The poststratification adjustment should reduce sampling variability, and more importantly reduce any reporting biases and bias due to undercoverage of the faculty sampling frame. Poststratification provides a means of weighting the faculty respondents to represent all faculty on the original faculty sampling frame as well as faculty missed on the frame. The method is entirely analogous to the nonresponse adjustment, where faculty respondents are weighted up to represent themselves as well as the faculty nonrespondents. While the nonresponse adjustment is based upon the assumption that the means of respondents and nonrespondents are similar, the poststratification adjustment is based upon the assumption that the means of covered faculty and missed faculty are similar. Neither assumption is perfect, but the resulting estimates are thought to be more accurate than they would be in the absence of the adjustments.

Imputation of Missing Data

Item nonresponse occurred when a respondent did not answer one or more survey questions. The item nonresponse rates were generally low for the institution and faculty questionnaires, since missing critical (and selected other) items were retrieved by interviewers. The NSOPF-93 faculty questionnaire had a mean item nonresponse rate of .103 for 395 items in six sections. The NSOPF-93 institution questionnaire had a mean item nonresponse rate of .101 for 283 items in

¹⁶After the sample was selected and institutions were contacted, NORC discovered that a few of the institutions in the sample had merged with other institutions on the sampling frame. Since a merged institution would be in the sample if any listing of the institution was selected from the frame, its weight must be reduced accordingly.

four sections.¹⁷ Imputation for item nonresponse was performed for each survey item, to make the study results more inclusive.¹⁸ “Don't know” responses were treated as item nonresponse and imputed for both the institution and faculty questionnaires. However, a second imputation was done for selected items in the faculty questionnaire with “don't know” responses, where this caused 30 percent or more of the responses to be eligible for imputation. In the second imputation, “don't knows” were treated as legitimate responses, and only in a case where there was no response to a survey item was imputation performed. For these items, in the second imputation, missing responses were imputed across all response categories, including the don't know category. This was done to allow researchers to choose how to treat don't knows in their analyses. Not applicable (“NA”) responses were not imputed since these represented respondents who were not eligible to answer the relevant item.

Imputation was performed using several procedures. Missing sex, race, and employment status data on the faculty data file were imputed directly from information supplied by institutions on the lists used for sampling faculty and instructional staff, whenever this information was available.

Two statistical procedures, regression-based and hot-deck, were employed to impute other missing data on both data files. Regression-based imputation was used for continuous and dichotomous variables. Hot-deck imputation was used for all other variables. The type of imputation used was recorded by setting the appropriate value of the imputation flag for each survey item.

Sources of Error

The survey estimates provided in the NSOPF-93 analytical reports, published by NCES, are subject to two sources of error: sampling errors and nonsampling errors. Sampling errors occur because the estimates are based on a sample of individuals in the population rather than on the entire population. Sampling errors can be quantified using statistical procedures in which a variance estimate is calculated. In the reports, the variance estimate is a standard error for the mean or proportion (including percent). The standard error measures the variability of the sample estimator in repeated sampling, using the same sample design and sample size. It indicates the variability of a sample estimator that would be obtained from all possible samples of a given design and size. Standard errors are used as a measure of the precision expected from a particular sample. If all possible samples were surveyed under similar conditions, intervals of 1.96 standard errors below to 1.96 standard errors above a mean or proportion would include the true population parameter in about 95 percent of the samples. In general, for large sample sizes (n

¹⁷The item nonresponse rate is defined as the ratio of the total number of nonresponses to the total number of individuals eligible to respond to a questionnaire item. The mean item nonresponse rates reported here are the unweighted means of the item nonresponse rates for all items on the questionnaires. For a full description of item nonresponse, see the *1993 National Study of Postsecondary Faculty: Methodology Report* [NCES 97-467].

¹⁸For more information on imputation of missing data in sample surveys, see Kalton, Graham and Daniel Kasprzyk, “Imputing for Missing Survey Responses.” Paper presented at 1982 Proceedings of the Section on Survey Research Methods, American Statistical Association; Kalton, Graham and Daniel Kasprzyk, “The Treatment of Missing Survey Data,” *Survey Methodology* 12 (1) (June, 1986), pp. 1-16.

greater than or equal to 30) and for estimates of the mean or the proportion, the intervals described above provide a 95 percent confidence interval. If sample sizes are too small, or if the parameters being estimated are not means or proportions, then these intervals may not correspond to the 95 percent confidence level.

The standard errors may be used to calculate confidence intervals around each estimate and to compare two or more estimates to determine if the observed differences are statistically significant. For example, table 1 in this report shows that 50.1 percent of full-time instructional faculty and staff who taught history in 4-year institutions were full professors in the fall of 1992. The standard error of that estimate is 2.91 (table A1). The 95 percent confidence interval for the statistic extends from 44.4 [50.1 - (1.96 x 2.91)] to 55.8 [50.1 + (1.96 x 2.91)] or from 44 to 56 percent. Standard errors for all estimates presented in this report's tables were computed using a technique known as Taylor series approximation. A computer program, SUDAAN,¹⁹ was used to calculate the standard errors. Those opting to calculate variances with the Taylor-series approximation method should use a "with replacement" type variance formula. Specialized computer programs, such as SUDAAN and CENVAR²⁰ calculate variances with the Taylor-series approximation method.

Comparisons noted in this report are significant at the .05 level. The significance of the difference between the overall mean (i.e., the mean of the entire population) and a subgroup mean (e.g., between the mean salary of all faculty in all institutions and the mean salary of all faculty in public doctoral institutions) was tested using a t-test in which the standard error of the difference was adjusted for the covariance between the subgroup and the total group. The exact formula for the appropriate t-test is:

$$t = \frac{\bar{X}_s - \bar{X}_T}{\sqrt{se_s^2 + se_T^2 - 2(p)se_s^2}}$$

where \bar{X}_T and se_T are the mean and standard error for the total group, \bar{X}_s and se_s are the mean and standard error for the subgroup, and p is the proportion of the total group contained in the subgroup.

When multiple pairwise comparisons were made, the acceptable minimum significance level was decreased by means of the Bonferroni adjustment.²¹ This adjustment takes into account the increased likelihood, when making multiple comparisons, of finding significant pairwise

¹⁹Shah, Babubhai V., Beth G. Barnwell, and Gayle S. Bieler, *SUDAAN User's Manual Release 6.4*. (Research Triangle Park, N.C.: Research Triangle Institute), 1995.

²⁰U.S. Bureau of the Census, *CENVAR IMPS Version 3.1* (Washington D.C.: U.S. Bureau of the Census), 1995.

²¹For an explanation of the Bonferroni adjustment for multiple comparisons, see Miller, Rupert G., *Simultaneous Statistical Inference* (New York: McGraw Hill Co.), 1981 or Dunn, Olive Jean, "Multiple Comparisons Among Means," *Journal of the American Statistical Association* 56 (293), (March, 1961), pp. 52-64.

differences simply by chance. With this adjustment, the significance level being used for each comparison (.05) is divided by the total number of comparisons being made.

Sample estimates also are subject to bias from nonsampling errors. It is more difficult to measure the magnitude of these errors. They can arise for a variety of reasons: nonresponse, undercoverage, differences in the respondent's interpretation of the meaning of questions, memory effects, misrecording of responses, incorrect editing, coding, and data entry, time effects, or errors in data processing. For example, undercoverage (in which institutions did not provide a complete enumeration of eligible faculty) and listing of ineligible faculty necessitated the "best estimates" correction to the NSOPF-93 faculty population estimates. For a more detailed discussion of the undercoverage problem, refer to the *1993 National Study of Postsecondary Faculty: Methodology Report* [NCES 97-467]. Whereas general sampling theory can be used, in part, to determine how to estimate the sampling variability of a statistic, nonsampling errors are not easy to measure. Measurement of nonsampling errors usually requires the incorporation of a methodological experiment into the survey or the use of external data to assess and verify survey results.

To minimize the potential for nonsampling errors, the faculty and institution questionnaires (as well as the sample design, data collection, and data processing procedures) were field-tested with a national probability sample of 136 postsecondary institutions and 636 faculty members in 1992. To evaluate reliability, a subsample of faculty respondents were re-interviewed. An extensive item nonresponse analysis of the questionnaires also was conducted followed by additional evaluation of the instruments and survey procedures.²² An item nonresponse analysis also was conducted for the full-scale surveys. See the *1993 National Study of Postsecondary Faculty: Methodology Report* [NCES 97-467] for a detailed description of the item nonresponse analysis.

In addition, for the full-scale surveys, a computer-based editing system was used to check data for range errors, logical inconsistencies, and erroneous skip patterns. For erroneous skip patterns, values were logically assigned on the basis of the presence or absence of responses within the skip pattern whenever feasible, given the responses. Missing or inconsistent critical items were retrieved. Some small inconsistencies between different data elements remained in the data files. In these situations, it was impossible to resolve the ambiguity as reported by the respondent. All data were keyed with 100 percent verification of a randomly selected subsample of 10 percent of all questionnaires received.

Replicate Weights

Thirty-two replicate weights are provided on the data files for users who prefer another method of variance estimation. These weights implement the balanced half-sample (BHS) method of variance estimation,²³ and they have been created to handle the certainty stratum and to incorporate finite

²²A complete description of the field test design and results can be found in Abraham, Sameer Y., *et al.*, *1992-93 National Study of Postsecondary Faculty: Field Test Report* (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics [NCES:93-390]), February 1994.

²³For a discussion of the balanced half-sample (BHS) method of variance estimation, see Wolter, Kirk M.,

population correction factors for each of the 14 noncertainty strata. Two widely available software packages, WesVarPC[®],²⁴ and PC CARP,²⁵ have capabilities to use replicate weights to estimate variances.

Analysts should be cautious about use of BHS-estimated variances that relate to one stratum or to a group of two or three strata. Such variance estimates may be based upon far fewer than 32 replicates, and thus the variance of the variance estimator may be large.

A Note About Estimates Based Upon Small Samples

Analysts who use either the restricted use faculty file or the institution file should also be cautious about cross-classifying data so deeply that the resulting estimates are based upon a very small number of observations. Analysts should interpret the accuracy of NSOPF–93 statistics in light of estimated standard errors and of the number of observations used in the statistics.

A Special Note About Estimates of Health Sciences Faculty

Problems with estimates of health sciences faculty could only be partly rectified by the creation of new best estimates. The reconciliation effort helped to identify some institutions that failed to list health science faculty on their original faculty lists. However, because faculty list data recorded faculty members' disciplines only for faculty in the four NEH disciplines, it was impossible to poststratify to best estimates for health science faculty.

Health science faculty are more likely to perform individualized instruction or noncredit teaching activities than are other types of faculty participating in NSOPF–93. The largest concentration of faculty who conducted individualized instruction but who did not teach courses, was found in the health sciences. Of the estimated 76,200 faculty who conducted individualized instruction and taught no other course, 31,201, or 41 percent, of the total were health sciences faculty. The next largest group of faculty meeting these criteria were found in the natural sciences (8,805 or 11.6 percent). Because of the importance of individualized instruction to health sciences faculty, selecting for analysis only those faculty who had any for-credit instructional responsibilities may have the unintended consequence of excluding a greater number of health sciences faculty than is warranted.

Because differences between health science faculty and other types of faculty persist despite reconciliation, health sciences faculty were not included as a separate program area but were included instead in “all other program areas” for this report. In the *1993 National Study of Postsecondary Faculty: Methodology Report* [NCES 97–467], the problem with health science estimates is discussed further and recommendations are made for future rounds of NSOPF.

Introduction to Variance Estimation (New York: Springer-Verlag), 1985, pp. 110–152.

²⁴Westat, Inc., *A User's Guide to WesVarPC[®], Version 2.0* (Rockville, Md.: Westat, Inc.), 1996.

²⁵Fuller, Wayne C., *et al.*, *PC CARP IV*. (Ames, Iowa: Statistical Laboratory, Iowa State University), 1986.

Appendix B:
Standard Error Tables

Table B1.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by academic rank and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Academic rank					Other rank/not applicable
		Full professor	Associate professor	Assistant professor	Instructor or lecturer		
All program areas	10,616.4	0.84	0.59	0.62	0.45	0.42	
Business, law and communications	2,723.7	1.90	1.67	1.79	0.99	0.46	
Humanities	1,666.8	1.39	1.18	1.06	1.08	0.68	
English and literature	969.1	1.82	1.69	1.61	1.76	0.61	
Foreign languages	819.1	2.91	2.67	2.43	2.67	1.17	
History	637.4	2.91	2.33	1.85	1.13	2.22	
Philosophy and religion	545.6	3.62	3.06	2.87	1.36	1.52	
Natural sciences and engineering	3,899.0	1.44	1.12	1.04	0.62	0.59	
Social sciences and education	2,756.4	1.49	1.38	1.09	0.80	0.46	
All other program areas*	5,718.3	1.35	1.10	1.26	0.88	0.84	

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B2.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by tenure status and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Tenure status			
		Tenured	On tenure track	Not on tenure track	No tenure system
All program areas	10,616.4	0.85	0.61	0.55	0.69
Business, law and communications	2,723.7	1.64	1.67	1.23	1.19
Humanities	1,666.8	1.53	0.97	0.90	1.15
English and literature	969.1	2.15	1.50	1.39	1.50
Foreign languages	819.1	3.23	2.08	2.00	2.53
History	637.4	2.88	1.80	1.34	1.91
Philosophy and religion	545.6	3.50	2.79	1.84	2.58
Natural sciences and engineering	3,899.0	1.36	1.13	0.68	0.88
Social sciences and education	2,756.4	1.31	1.05	0.89	0.78
All other program areas*	5,718.3	1.54	1.08	1.21	1.34

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B3.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions with a doctoral or a first professional degree, by program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Have a doctoral or first professional degree	
		Yes	No
All program areas	10,616.4	0.70	0.70
Business, law and communications	2,723.7	1.93	1.93
Humanities	1,666.8	1.24	1.24
English and literature	969.1	1.94	1.94
Foreign languages	819.1	2.75	2.75
History	637.4	2.07	2.07
Philosophy and religion	545.6	2.47	2.47
Natural sciences and engineering	3,899.0	0.86	0.86
Social sciences and education	2,756.4	0.98	0.98
All other program areas*	5,718.3	1.45	1.45

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B4.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by sex and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Sex	
		Male	Female
All program areas	10,616.4	0.54	0.54
Business, law and communications	2,723.7	1.35	1.35
Humanities	1,666.8	1.32	1.32
English and literature	969.1	1.88	1.88
Foreign languages	819.1	3.25	3.25
History	637.4	2.37	2.37
Philosophy and religion	545.6	2.33	2.33
Natural sciences and engineering	3,899.0	0.80	0.80
Social sciences and education	2,756.4	1.05	1.05
All other program areas*	5,718.3	1.24	1.24

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B5.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by race/ethnicity and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Race/ethnicity				
		American Indian/ Alaskan Native	Asian/ Pacific Islander	Black, non- Hispanic	Hispanic	White, non- Hispanic
All program areas	10,616.4	0.06	0.29	0.47	0.19	0.59
Business, law and communications	2,723.7	0.22	0.91	0.63	0.30	1.17
Humanities	1,666.8	0.11	0.52	0.54	0.41	0.82
English and literature	969.1	0.21	0.46	0.92	0.47	1.16
Foreign languages	819.1	0.06	1.93	0.47	1.40	2.38
History	637.4	0.31	0.77	1.21	0.60	1.52
Philosophy and religion	545.6	0.00	0.99	0.76	0.59	1.35
Natural sciences and engineering	3,899.0	0.11	0.71	0.61	0.25	1.02
Social sciences and education	2,756.4	0.13	0.31	0.74	0.45	0.89
All other program areas*	5,718.3	0.09	0.54	0.57	0.32	0.81

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B6.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by age and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Average age	Age distribution					
			Under 35	35-44	45-54	55-64	65-70	71 or older
All program areas	10,616.4	0.14	0.37	0.67	0.62	0.49	0.25	0.11
Business, law and communications	2,723.7	0.38	0.86	1.72	1.51	1.27	0.76	0.46
Humanities	1,666.8	0.30	0.70	1.08	1.36	1.24	0.54	0.27
English and literature	969.1	0.41	0.86	1.59	1.81	1.68	0.95	0.34
Foreign languages	819.1	0.67	1.44	2.62	3.05	3.00	0.78	1.04
History	637.4	0.61	1.80	2.20	2.67	2.80	0.88	0.14
Philosophy and religion	545.6	0.72	2.23	3.01	3.48	2.96	1.79	0.20
Natural sciences and engineering	3,899.0	0.26	0.73	1.23	1.18	1.02	0.49	0.21
Social sciences and education	2,756.4	0.26	0.60	1.18	1.22	1.06	0.57	0.22
All other program areas*	5,718.3	0.24	0.75	1.16	1.09	0.85	0.44	0.15

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B7.—Standard errors for percentage distribution of full-time instructional faculty and staff in 4-year institutions, by age and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Age	
		Under 55	55 and older
All program areas	10,616.4	0.53	0.53
Business, law and communications	2,723.7	1.49	1.49
Humanities	1,666.8	1.39	1.39
English and literature	969.1	1.97	1.97
Foreign languages	819.1	3.16	3.16
History	637.4	2.88	2.88
Philosophy and religion	545.6	3.09	3.09
Natural sciences and engineering	3,899.0	1.05	1.05
Social sciences and education	2,756.4	1.14	1.14
All other program areas*	5,718.3	0.96	0.96

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B8.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by citizenship status and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Citizenship status	
		Citizen	Non-citizen
All program areas	10,616.4	0.47	0.47
Business, law and communications	2,723.7	1.13	1.13
Humanities	1,666.8	0.78	0.78
English and literature	969.1	0.57	0.57
Foreign languages	819.1	2.72	2.72
History	637.4	0.82	0.82
Philosophy and religion	545.6	2.04	2.04
Natural sciences and engineering	3,899.0	0.97	0.97
Social sciences and education	2,756.4	0.70	0.70
All other program areas*	5,718.3	0.62	0.62

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B9.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by principal activity and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Principal activity			
		Teaching	Research	Administration	Other ¹
All program areas	10,616.4	0.90	0.73	0.39	0.47
Business, law and communications	2,723.7	1.76	1.20	1.13	0.70
Humanities	1,666.8	1.09	0.55	0.93	0.30
English and literature	969.1	1.53	0.64	1.34	0.45
Foreign languages	819.1	2.31	1.51	1.71	0.79
History	637.4	2.13	1.38	1.68	0.58
Philosophy and religion	545.6	2.76	1.49	2.42	0.79
Natural sciences and engineering	3,899.0	1.61	1.60	0.60	0.48
Social sciences and education	2,756.4	1.20	0.96	0.84	0.53
All other program areas ²	5,718.3	1.51	1.08	0.74	1.12

¹Other includes technical activities (e.g., programmer, technician, chemist, engineer, etc.), clinical service, community/public service, on sabbatical from this institution, or other (includes subsidized performer, artist in residence, etc.).

²Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B10.—Standard errors for percentage distribution of full-time instructional faculty and staff in 4-year institutions, by time allocation and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Percentage of time spent on:			
		Teaching activities ¹	Research activities ²	Administration activities	Other activities ³
All program areas	10,616.4	0.53	0.48	0.25	0.27
Business, law and communications	2,723.7	0.89	0.76	0.71	0.54
Humanities	1,666.8	0.74	0.55	0.55	0.30
English and literature	969.1	1.03	0.66	0.84	0.44
Foreign languages	819.1	1.59	1.24	0.88	0.69
History	637.4	1.39	1.17	1.18	0.56
Philosophy and religion	545.6	1.66	1.56	1.40	0.68
Natural sciences and engineering	3,899.0	0.89	0.86	0.38	0.31
Social sciences and education	2,756.4	0.74	0.66	0.58	0.40
All other program areas ⁴	5,718.3	0.95	0.80	0.50	0.62

¹Teaching activities include teaching, grading papers, preparing courses; developing new curricula; advising or supervising students; working with student organizations or intramural athletics.

²Research activities include research; reviewing or preparing articles or books; attending or preparing for professional meetings or conferences; reviewing proposals; seeking outside funding; giving performances or exhibitions in the fine or applied arts, or giving speeches.

³Other activities include professional growth (including taking courses, pursuing an advanced degree; other professional development activities, such as practice or activities to remain current in your field); administration; outside consulting or freelance work; and service/other non-teaching activities (including providing legal or medical services or psychological counseling to clients or patients; paid or unpaid community or public service, service to professional societies/ associations; other activities or work).

⁴Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B11.—Standard errors for mean hours worked, mean classroom hours, and mean student contact hours per week for full-time instructional faculty and staff in 4-year institutions, by program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Mean hours worked per week	Mean classroom hours per week	Mean student contact hours ¹ per week
All program areas	10,616.4	0.21	0.14	8.14
Business, law and communications	2,723.7	0.56	0.25	9.43
Humanities	1,666.8	0.41	0.21	8.98
English and literature	969.1	0.67	0.39	11.27
Foreign languages	819.1	1.00	0.33	8.62
History	637.4	0.90	0.35	28.51
Philosophy and religion	545.6	1.11	0.45	26.25
Natural sciences and engineering	3,899.0	0.40	0.21	18.11
Social sciences and education	2,756.4	0.36	0.19	10.76
All other program areas ²	5,718.3	0.40	0.29	15.76

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

²Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B12.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by level of satisfaction with workload and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Satisfaction with workload			
		Very dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Very satisfied
All program areas	10,616.4	0.35	0.50	0.56	0.57
Business, law and communications	2,723.7	0.91	1.36	1.73	1.86
Humanities	1,666.8	0.91	1.06	1.22	1.27
English and literature	969.1	1.20	1.59	1.93	1.85
Foreign languages	819.1	1.87	2.69	2.62	2.77
History	637.4	1.82	1.98	2.42	2.70
Philosophy and religion	545.6	2.37	3.01	3.38	2.97
Natural sciences and engineering	3,899.0	0.67	1.02	1.18	1.13
Social sciences and education	2,756.4	0.73	1.19	1.29	1.27
All other program areas*	5,718.3	0.70	0.93	1.11	1.14

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B13.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion of pressure to increase workload and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of pressure to increase workload		
		Worsened	Stayed the same	Improved
All program areas	10,616.4	0.94	0.87	0.44
Business, law and communications	2,723.7	2.27	1.94	1.69
Humanities	1,666.8	1.56	1.47	0.92
English and literature	969.1	2.00	1.93	1.14
Foreign languages	819.1	3.48	3.52	1.94
History	637.4	3.29	3.18	1.83
Philosophy and religion	545.6	3.20	3.24	2.31
Natural sciences and engineering	3,899.0	1.62	1.61	0.78
Social sciences and education	2,756.4	1.66	1.52	0.79
All other program areas*	5,718.3	1.34	1.26	0.64

*Includes individuals who did not designate a program area of instruction.

NOTE: Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B14.—Standard errors for mean number of publications and presentations in the previous two years by full-time instructional faculty and staff in 4-year institutions, by type of activity and program area: Fall 1992

Publications and presentations in previous 2-years							
Program area in 4-year institutions	Full-time instructional faculty and staff	Articles in refereed journals	Books and monographs ¹	Reviews	Technical reports ²	Presentations	
All program areas	10,616.4	0.08	0.02	0.02	0.07	0.10	
Business, law and communications	2,723.7	0.11	0.06	0.05	0.18	0.30	
Humanities	1,666.8	0.07	0.05	0.06	0.07	0.22	
English and literature	969.1	0.06	0.07	0.10	0.10	0.30	
Foreign languages	819.1	0.14	0.11	0.11	0.06	0.20	
History	637.4	0.21	0.09	0.14	0.17	0.23	
Philosophy and religion	545.6	0.15	0.20	0.12	0.20	1.14	
Natural sciences and engineering	3,899.0	0.19	0.04	0.04	0.14	0.21	
Social sciences and education	2,756.4	0.08	0.06	0.06	0.13	0.21	
All other program areas ³	5,718.3	0.14	0.04	0.03	0.15	0.21	

¹Includes chapters in edited volumes, textbooks, other books, and monographs.

²Includes articles published in nonrefereed or trade journals and research or technical reports disseminated internally or to clients.

³Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B15.—Standard errors for mean number of total career publications and presentations by full-time instructional faculty and staff in 4-year institutions, by type of activity and program area: Fall 1992

Publications and presentations in career							
Program area in 4-year institutions	Full-time instructional faculty and staff	Articles in refereed journals	Books and monographs ¹	Reviews	Technical reports ²	Presentations	
All program areas	10,616.4	0.63	0.12	0.18	0.54	0.81	
Business, law and communications	2,723.7	0.64	0.20	0.52	1.30	1.40	
Humanities	1,666.8	0.43	0.20	0.61	0.69	1.37	
English and literature	969.1	0.42	0.31	0.88	1.43	1.90	
Foreign languages	819.1	0.86	0.42	0.78	0.28	1.34	
History	637.4	1.01	0.35	1.96	1.00	1.42	
Philosophy and religion	545.6	1.60	0.76	1.03	1.32	7.44	
Natural sciences and engineering	3,899.0	1.52	0.16	0.24	1.23	1.54	
Social sciences and education	2,756.4	0.71	0.30	0.46	0.75	1.65	
All other program areas ³	5,718.3	1.18	0.19	0.27	1.09	1.87	

¹Includes chapters in edited volumes, textbooks, other books, and monographs.

²Includes articles published in nonrefereed or trade journals and research or technical reports disseminated internally or to clients.

³Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B16.—Standard errors for mean total earned income of full-time instructional faculty and staff in 4-year institutions, by source of income and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Total earned income	Basic salary from institution	Other income from institution	Outside consulting income	Other outside income
All program areas	10,616.4	\$1,094.8	\$816.5	\$237.5	\$191.0	\$402.9
Business, law and communications	2,723.7	2,220.9	1,586.7	380.1	585.7	1,368.5
Humanities	1,666.8	948.2	669.5	171.7	93.7	677.6
English and literature	969.1	1,668.2	822.7	198.0	198.9	1,433.9
Foreign languages	819.1	1,570.5	1,445.6	506.9	73.3	525.8
History	637.4	2,083.9	1,403.1	295.5	140.1	1,361.0
Philosophy and religion	545.6	1,323.9	1,174.4	431.8	179.6	303.9
Natural sciences and engineering	3,899.0	1,348.7	1,030.8	315.7	256.6	704.3
Social sciences and education	2,756.4	1,197.3	658.0	496.2	645.4	478.9
All other program areas*	5,718.3	2,540.1	1,957.7	556.8	299.9	894.9

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B17.—Standard errors for mean basic salary from institution for full-time instructional faculty and staff in 4-year institutions, by academic rank and program area: Fall 1992

Program area in 4-year institutions	Full-time		Academic rank				
	instructional faculty and staff	Total basic salary	Full professor	Associate professor	Assistant professor	Instructor or lecturer	Other rank or not applicable
All program areas	10,616.4	\$816.5	\$1,655.0	\$1,389.1	\$869.4	\$1,036.3	\$1,659.4
Business, law and communications	2,723.7	1,586.7	2,382.4	4,267.1	953.4	1,465.5	—
Humanities	1,666.8	669.5	1,120.2	914.8	532.6	921.9	2,028.1
English and literature	969.1	822.7	1,483.3	1,010.6	819.3	1,155.2	—
Foreign languages	819.1	1,445.6	3,931.7	807.7	907.3	1,899.6	—
History	637.4	1,403.1	1,560.6	3,603.9	1,225.2	—	—
Philosophy and religion	545.6	1,174.4	1,876.7	1,109.2	1,074.9	—	—
Natural sciences and engineering	3,899.0	1,030.8	1,710.1	1,983.0	1,387.6	1,544.9	5,549.3
Social sciences and education	2,756.4	658.0	959.5	725.8	1,383.7	1,449.6	3,324.6
All other program areas*	5,718.3	1,957.7	5,431.6	3,568.1	1,905.1	2,258.4	2,098.1

—Too few cases for a reliable estimate.

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B18.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by level of satisfaction with salary and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Satisfaction with salary			
		Very dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Very satisfied
All program areas	10,616.4	0.60	0.63	0.67	0.58
Business, law and communications	2,723.7	1.35	1.66	1.67	1.54
Humanities	1,666.8	1.25	1.30	1.24	0.98
English and literature	969.1	1.79	1.72	1.90	1.25
Foreign languages	819.1	2.96	3.07	2.60	1.87
History	637.4	2.09	2.60	2.45	2.30
Philosophy and religion	545.6	3.01	3.06	3.12	2.46
Natural sciences and engineering	3,899.0	0.98	1.13	1.23	1.15
Social sciences and education	2,756.4	1.09	1.12	1.31	0.80
All other program areas*	5,718.3	0.93	1.06	1.13	0.86

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B19.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by level of satisfaction with benefits and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Satisfaction with benefits			
		Very dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Very satisfied
All program areas	10,616.4	0.45	0.58	0.65	0.87
Business, law and communications	2,723.7	1.24	1.49	1.82	2.10
Humanities	1,666.8	0.79	1.10	1.36	1.32
English and literature	969.1	1.26	1.58	1.92	1.70
Foreign languages	819.1	1.27	2.66	3.09	2.81
History	637.4	1.65	2.31	2.93	2.44
Philosophy and religion	545.6	1.55	2.95	3.58	3.88
Natural sciences and engineering	3,899.0	0.84	1.06	1.34	1.51
Social sciences and education	2,756.4	0.77	1.11	1.32	1.39
All other program areas*	5,718.3	0.69	0.90	1.05	1.24

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B20.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by whether engaged in professional research, writing, or creative works and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Any research, writing, or creative works	
		Yes	No
All program areas	10,616.4	0.72	0.72
Business, law and communications	2,723.7	1.50	1.50
Humanities	1,666.8	1.14	1.14
English and literature	969.1	1.71	1.71
Foreign languages	819.1	2.78	2.78
History	637.4	2.63	2.63
Philosophy and religion	545.6	2.70	2.70
Natural sciences and engineering	3,899.0	1.21	1.21
Social sciences and education	2,756.4	1.13	1.13
All other program areas*	5,718.3	1.23	1.23

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B21.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by participation in funded research or funded creative endeavors and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Any funded research	
		Yes	No
All program areas	10,616.4	0.94	0.94
Business, law and communications	2,723.7	1.66	1.66
Humanities	1,666.8	0.95	0.95
English and literature	969.1	1.40	1.40
Foreign languages	819.1	2.29	2.29
History	637.4	1.85	1.85
Philosophy and religion	545.6	2.57	2.57
Natural sciences and engineering	3,899.0	1.70	1.70
Social sciences and education	2,756.4	1.41	1.41
All other program areas*	5,718.3	1.66	1.66

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B22.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by participation in federally funded research and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Any federally funded research	
		Yes	No
All program areas	10,616.4	0.74	0.74
Business, law and communications	2,723.7	0.70	0.70
Humanities	1,666.8	0.43	0.43
English and literature	969.1	0.60	0.60
Foreign languages	819.1	1.23	1.23
History	637.4	0.34	0.34
Philosophy and religion	545.6	1.23	1.23
Natural sciences and engineering	3,899.0	1.69	1.69
Social sciences and education	2,756.4	0.97	0.97
All other program areas*	5,718.3	1.11	1.11

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B23.—Standard errors for mean office hours of full-time instructional faculty and staff in 4-year institutions, by sex and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Total regularly scheduled office hours per week	Sex	
			Male	Female
All program areas	10,616.4	0.16	0.19	0.24
Business, law and communications	2,723.7	0.39	0.43	1.05
Humanities	1,666.8	0.21	0.28	0.28
English and literature	969.1	0.31	0.44	0.40
Foreign languages	819.1	0.44	0.71	0.50
History	637.4	0.40	0.48	0.59
Philosophy and religion	545.6	0.47	0.50	0.88
Natural sciences and engineering	3,899.0	0.28	0.31	0.49
Social sciences and education	2,756.4	0.29	0.37	0.35
All other program areas*	5,718.3	0.32	0.44	0.45

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B24.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by parents' level of education and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Highest education level of parents ¹		
		High	Medium	Low
All program areas	10,616.4	0.28	0.63	0.67
Business, law and communications	2,723.7	0.69	2.07	2.00
Humanities	1,666.8	0.51	1.30	1.34
English and literature	969.1	0.63	2.09	2.10
Foreign languages	819.1	1.11	3.07	3.03
History	637.4	1.33	2.67	2.69
Philosophy and religion	545.6	1.60	3.49	3.46
Natural sciences and engineering	3,899.0	0.56	1.29	1.35
Social sciences and education	2,756.4	0.68	1.30	1.43
All other program areas ²	5,718.3	0.55	1.19	1.20

¹Parents' level of education was calculated as the average of the respondent's mother's level of formal education and the respondent's father's level of formal education. Highest education level of parents was defined as low if parents had a high school education or below, as medium if parents had some college education or a bachelor's degree, and high if parents had more than a bachelor's degree.

²Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B25.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about teaching effectiveness as primary promotion criterion and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about teaching effectiveness as primary promotion criterion			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	10,616.4	0.63	0.60	0.59	0.81
Business, law and Communications	2,723.7	0.95	1.47	1.81	1.93
Humanities	1,666.8	0.74	1.12	1.19	1.39
English and literature	969.1	1.01	1.43	1.84	2.10
Foreign languages	819.1	1.74	2.78	2.89	2.84
History	637.4	1.70	2.44	2.56	2.70
Philosophy and religion	545.6	1.98	2.53	3.42	3.60
Natural sciences and engineering	3,899.0	1.37	1.16	1.14	1.38
Social sciences and education	2,756.4	1.06	1.13	1.32	1.44
All other program areas*	5,718.3	0.83	0.89	1.08	1.22

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B26.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about research/publications as primary promotion criterion and program area: Fall 1992

criterion Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about research as primary promotion			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	10,616.4	0.68	0.62	0.69	0.46
Business, law and communications	2,723.7	1.66	1.98	1.69	1.03
Humanities	1,666.8	1.33	1.38	1.23	0.76
English and literature	969.1	1.92	1.97	1.71	0.81
Foreign languages	819.1	2.71	3.10	3.23	1.74
History	637.4	2.06	2.50	2.58	1.96
Philosophy and religion	545.6	3.10	3.51	3.49	2.25
Natural sciences and engineering	3,899.0	1.25	1.15	1.33	1.13
Social sciences and education	2,756.4	1.13	1.36	1.28	0.91
All other program areas*	5,718.3	1.12	1.17	1.23	0.69

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B27.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about whether research is rewarded more than teaching and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about whether research is rewarded more than teaching			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	10,616.4	0.78	0.61	0.54	0.95
Business, law and communications	2,723.7	1.52	1.74	1.69	2.02
Humanities	1,666.8	1.24	1.02	1.30	1.53
English and literature	969.1	1.61	1.47	1.71	2.11
Foreign languages	819.1	2.02	2.06	3.01	2.99
History	637.4	2.33	2.28	2.35	2.56
Philosophy and religion	545.6	3.22	2.49	2.99	3.18
Natural sciences and engineering	3,899.0	1.11	1.07	1.13	1.61
Social sciences and education	2,756.4	1.20	1.14	1.14	1.47
All other program areas*	5,718.3	1.31	1.05	1.00	1.65

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B28.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about whether state or federally mandated assessment requirements will improve the quality of undergraduate education and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about mandated assessments and education quality			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	10,616.4	0.67	0.60	0.61	0.28
Business, law and communications	2,723.7	1.68	1.55	1.41	0.78
Humanities	1,666.8	1.37	1.18	1.14	0.65
English and literature	969.1	1.92	1.69	1.50	0.81
Foreign languages	819.1	2.99	2.84	2.63	1.66
History	637.4	2.74	2.43	2.41	1.27
Philosophy and religion	545.6	3.30	3.00	2.30	1.88
Natural sciences and engineering	3,899.0	1.26	1.12	1.05	0.61
Social sciences and education	2,756.4	1.23	1.22	1.08	0.48
All other program areas*	5,718.3	1.14	1.16	1.09	0.50

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B29.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about whether female faculty members are treated fairly, sex, and program area: Fall 1992

Sex and program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about female faculty treated fairly			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
Male					
All program areas	8,146.5	0.31	0.54	0.77	0.89
Business, law and communications	2,043.5	0.84	1.45	2.27	2.27
Humanities	1,289.4	0.70	1.24	1.65	1.71
English and literature	673.7	1.39	1.77	2.36	2.40
Foreign languages	598.9	1.32	2.41	4.37	4.36
History	586.7	1.05	2.08	3.37	3.31
Philosophy and religion	516.0	1.50	3.48	3.39	3.34
Natural sciences and engineering	3,629.7	0.37	1.08	1.47	1.60
Social sciences and education	2,176.7	0.74	1.18	1.68	1.68
All other program areas*	4,272.1	0.75	0.98	1.60	1.53
Female					
All program areas	3,536.9	0.72	0.95	1.02	0.95
Business, law and communications	1,002.5	2.62	2.79	2.54	2.13
Humanities	924.1	1.63	1.99	2.07	1.61
English and literature	628.1	2.34	2.73	2.88	1.86
Foreign languages	530.7	3.15	3.25	4.04	2.98
History	290.8	4.17	4.49	4.64	4.13
Philosophy and religion	187.9	7.02	9.54	7.06	7.19
Natural sciences and engineering	853.5	1.32	2.26	2.65	2.42
Social sciences and education	1,071.7	1.41	1.95	2.06	1.46
All other program areas*	2,411.7	1.21	1.53	1.73	1.48

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B30.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about treatment of minority faculty, minority status, and program area: Fall 1992

Minority status and program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about minority faculty treated fairly			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
Minority					
All program areas	2,834.4	0.89	1.26	1.34	1.58
Business, law and communications	609.0	3.39	3.57	3.71	5.88
Humanities	484.8	1.85	2.65	3.32	3.15
English and literature	271.0	4.26	4.06	5.55	5.65
Foreign languages	323.5	2.17	4.66	5.46	4.53
History	183.2	3.54	4.30	7.06	7.44
Philosophy and religion	—	—	—	—	—
Natural sciences and engineering	1,226.7	1.40	2.06	2.57	2.38
Social sciences and education	751.2	2.21	3.00	2.77	3.21
All other program areas*	1,279.8	1.74	2.57	3.03	2.51
Nonminority					
All program areas	9,499.0	0.30	0.46	0.68	0.73
Business, law and communications	2,488.8	0.95	1.30	2.13	2.17
Humanities	1,539.6	0.67	1.00	1.37	1.48
English and literature	950.1	1.03	1.59	1.98	1.94
Foreign languages	722.7	1.72	2.20	3.43	3.70
History	602.9	1.27	1.96	3.13	3.12
Philosophy and religion	534.1	1.63	2.57	3.47	3.07
Natural sciences and engineering	3,376.6	0.35	0.91	1.48	1.42
Social sciences and education	2,554.9	0.77	1.00	1.39	1.40
All other program areas*	5,166.0	0.66	0.79	1.28	1.24

—Too few sample cases for a reliable estimate.

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B31.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about choosing academic career again and program area: Fall 1992

again Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion about respondent choosing academic career			
		Disagree strongly	Disagree somewhat	Agree somewhat	Agree strongly
All program areas	10,616.4	0.22	0.34	0.62	0.66
Business, law and communications	2,723.7	0.65	0.79	1.52	1.65
Humanities	1,666.8	0.57	0.72	1.05	1.18
English and literature	969.1	0.87	1.05	1.71	1.80
Foreign languages	819.1	1.30	1.59	2.48	2.96
History	637.4	1.23	1.82	2.33	2.65
Philosophy and religion	545.6	0.95	1.39	2.86	2.99
Natural sciences and engineering	3,899.0	0.48	0.80	1.27	1.33
Social sciences and education	2,756.4	0.47	0.68	1.16	1.28
All other program areas*	5,718.3	0.37	0.60	1.09	1.23

*Includes individuals who did not designate a program area of instruction.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B32.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the quality of students who choose to pursue academic careers in their field in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of quality of students in field		
		Worsened	Stayed the same	Improved
All program areas	10,616.4	0.62	0.67	0.70
Business, law and communications	2,723.7	1.66	1.78	2.06
Humanities	1,666.8	1.23	1.50	1.32
English and literature	969.1	1.82	2.19	1.83
Foreign languages	819.1	3.13	2.50	
History	637.4	2.14	2.81	2.90
Philosophy and religion	545.6	3.13	3.38	3.18
Natural sciences and engineering	3,899.0	1.26	1.47	1.22
Social sciences and education	2,756.4	1.09	1.29	1.35
All other program areas*	5,718.3	1.13	1.13	1.18

*Includes individuals who did not designate a program area of instruction.

NOTE: Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B33.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about opportunities junior faculty have for advancement in field in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of junior faculty advancement in field		
		Worsened	Stayed the same	Improved
All program areas	10,616.4	0.65	0.62	0.61
Business, law and communications	2,723.7	1.66	1.75	1.44
Humanities	1,666.8	1.25	1.37	1.19
English and literature	969.1	1.99	2.07	1.80
Foreign languages	819.1	2.58	2.97	2.45
History	637.4	2.51	2.92	2.39
Philosophy and religion	545.6	3.04	3.49	2.87
Natural sciences and engineering	3,899.0	1.23	1.20	1.12
Social sciences and education	2,756.4	1.47	1.49	1.23
All other program areas*	5,718.3	1.14	1.33	1.07

*Includes individuals who did not designate a program area of instruction.

NOTE: Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B34.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about professional competence of individuals entering their field in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of competence of those entering field		
		Worsened	Stayed the same	Improved
All program areas	10,616.4	0.40	0.76	0.67
Business, law and Communications	2,723.7	1.10	1.83	1.95
Humanities	1,666.8	0.82	1.41	1.35
English and literature	969.1	1.36	1.92	1.92
Foreign languages	819.1	2.02	3.01	2.90
History	637.4	1.80	2.77	2.80
Philosophy and religion	545.6	2.01	3.58	3.27
Natural sciences and engineering	3,899.0	0.89	1.38	1.27
Social sciences and education	2,756.4	0.88	1.47	1.35
All other program areas*	5,718.3	0.66	1.29	1.16

*Includes individuals who did not designate a program area of instruction.

NOTE: Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B35.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the ability of the institution in recent years to meet the educational needs of entering students and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of institution meeting student needs		
		Worsened	Stayed the same	Improved
All program areas	10,616.4	0.78	0.69	0.81
Business, law and Communications	2,723.7	1.88	1.74	1.90
Humanities	1,666.8	1.32	1.25	1.42
English and literature	969.1	2.01	1.89	1.85
Foreign languages	819.1	2.35	3.07	3.20
History	637.4	2.54	2.68	2.80
Philosophy and religion	545.6	3.21	3.10	3.28
Natural sciences and engineering	3,899.0	1.27	1.34	1.33
Social sciences and education	2,756.4	1.23	1.24	1.47
All other program areas*	5,718.3	1.07	1.11	1.21

*Includes individuals who did not designate a program area of instruction.

NOTE: Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B36.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the ability of faculty to obtain external funding and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of faculty ability to obtain external funding		
		Worsened	Stayed the same	Improved
All program areas	10,616.4	0.75	0.59	0.63
Business, law and Communications	2,723.7	1.88	1.83	1.76
Humanities	1,666.8	1.45	1.27	1.20
English and literature	969.1	1.98	1.84	1.74
Foreign languages	819.1	3.11	2.78	2.66
History	637.4	3.02	2.69	2.21
Philosophy and religion	545.6	3.20	3.07	2.87
Natural sciences and engineering	3,899.0	1.53	1.08	1.21
Social sciences and education	2,756.4	1.24	1.24	1.11
All other program areas*	5,718.3	1.24	1.08	0.95

*Includes individuals who did not designate a program area of instruction.

NOTE: Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B37.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the quality of undergraduate education at the institution in recent years and program area: Fall 1992

institution	Opinion of undergraduate education at			
	Full-time instructional faculty and staff	Worsened	Stayed the same	Improved
All program areas	10,616.4	0.67	0.66	0.80
Business, law and communications	2,723.7	1.55	1.91	1.99
Humanities	1,666.8	1.28	1.39	1.42
English and literature	969.1	1.79	1.90	1.88
Foreign languages	819.1	2.80	3.31	3.09
History	637.4	2.31	3.00	2.91
Philosophy and religion	545.6	2.99	3.15	3.13
Natural sciences and engineering	3,899.0	1.06	1.41	1.22
Social sciences and education	2,756.4	1.19	1.43	1.57
All other program areas*	5,718.3	0.99	1.26	1.37

*Includes individuals who did not designate a program area of instruction.

NOTE: Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B38.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the atmosphere for free expression of ideas at the institution in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of atmosphere for free expression		
		Worsened	Stayed the same	Improved
All program areas	10,616.4	0.54	0.66	0.54
Business, law and communications	2,723.7	1.64	1.83	1.66
Humanities	1,666.8	1.16	1.23	1.01
English and literature	969.1	1.73	1.82	1.46
Foreign languages	819.1	2.62	3.03	2.47
History	637.4	1.96	2.50	2.19
Philosophy and religion	545.6	2.30	3.37	2.61
Natural sciences and engineering	3,899.0	0.94	1.16	0.97
Social sciences and education	2,756.4	1.08	1.30	1.12
All other program areas*	5,718.3	0.90	1.21	1.04

*Includes individuals who did not designate a program area of instruction.

NOTE: Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Table B39.—Standard errors for percentage of full-time instructional faculty and staff in 4-year institutions, by opinion about the quality of research at the institution in recent years and program area: Fall 1992

Program area in 4-year institutions	Full-time instructional faculty and staff	Opinion of quality of research at institution		
		Worsened	Stayed the same	Improved
All program areas	10,616.4	0.38	0.88	0.96
Business, law and communications	2,723.7	1.00	2.35	2.49
Humanities	1,666.8	0.75	1.53	1.53
English and literature	969.1	1.15	2.09	2.01
Foreign languages	819.1	1.38	3.14	3.17
History	637.4	1.60	3.03	2.92
Philosophy and religion	545.6	2.01	3.42	3.28
Natural sciences and engineering	3,899.0	0.71	1.45	1.52
Social sciences and education	2,756.4	0.67	1.45	1.48
All other program areas*	5,718.3	0.73	1.36	1.41

*Includes individuals who did not designate a program area of instruction.

NOTE: Don't know responses have been imputed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty.

Appendix C:
1993 NSOPF Faculty Questionnaire