
NATIONAL CENTER FOR EDUCATION STATISTICS

Analysis Report

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of Instructional Faculty and Staff in
Higher Education Institutions**

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Retirement and Other Departure Plans of Instructional Faculty and Staff in Higher Education Institutions

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Highlights

This report describes the retirement and other departure plans (i.e., accepting another job within or outside of postsecondary education) of full- and part-time instructional faculty and staff¹ in higher education institutions. In this report, instructional faculty and staff are those individuals who, in the 1992 fall term, had any instructional duties related to credit courses, advising, or supervising academic activities for credit. The data presented are from the 1988 and 1993 National Study of Postsecondary Faculty (NSOPF).

Age

- The average age of full-time instructional faculty and staff increased from 47 to 48 between the fall of 1987 and the fall of 1992 (table 1).
- In the fall of 1992, part-time instructional faculty and staff tended to be younger than full-time instructional faculty and staff. For example, 8 percent of full-time instructional faculty and staff were under age 35 (table 1), but 15 percent of those employed part time were in that age range (table 26).

Retirement Plans

- In the fall of 1992, 7 percent of full-time (table 6) and 6 percent of part-time (table 29) instructional faculty and staff indicated they were very likely to retire from the labor force in the next 3 years.
- A smaller percentage of full-time instructional faculty and staff over age 70 (32 percent) reported they were very likely to retire in the next 3 years than those aged 65–69 (46 percent) (table 6).
- Eighty-five percent of full-time instructional faculty and staff who indicated that they were very likely to retire within the next 3 years were satisfied with their jobs overall (table 8). Of those who said that they were very likely to retire within the next 3 years, a substantial percentage expressed dissatisfaction with the time required to keep up in one's field (42 percent), salary (38 percent), opportunity for advancement (29 percent), and workload (24 percent) (table 8).
- White, non-Hispanic and Asian or Pacific Islander instructional faculty and staff had similar attitudes about the age that they were most likely to retire. Fifty-four percent of whites and 52 percent of Asians indicated they expected to work until they were age 65 or older (table 18).
- Males (57 percent) were more likely than females (44 percent) to indicate that they expect to work until age 65 (table 18).
- There is uncertainty among instructional faculty and staff concerning when they will retire from paid employment. Many full-time (30 percent) (table 18) and part-time (35 percent) instructional faculty and staff reported that they did not know the age at which they were likely to retire. (table 30).
- More than one-half (57 percent) of all full-time instructional faculty and staff indicated they expected to retire between the ages of 60 and 70. About 10 percent indicated that their retirement would occur sometime after age 70 (table 18).
- Twenty-eight percent of full-time instructional faculty and staff indicated they would be willing to take an early retirement option if their institution offered it. An additional 35 percent stated they did not know if they would accept an early retirement option if one were available to them (table 21).

¹ Full-time refers to the employment status at the institution rather than to any instructional responsibilities.

- Many full-time instructional faculty and staff willing to take an early retirement option expressed dissatisfaction with aspects of their work including time available for keeping current in their field (55 percent), salary (47 percent), workload (37 percent), and opportunities for advancement (36 percent) (table 23).

Other Departure Plans

- One-fifth (22 percent) of full-time instructional faculty and staff indicated it was very likely they would retire or move to a different position in the next 3 years (table 5).
- Thirty-eight percent of those employed part time indicated it was very likely that they would retire or move to a different position in the next 3 years (table 29).
- A higher percentage of part-time instructional faculty and staff (15 percent) indicated it was very likely that they would move to a full-time job outside of postsecondary education within the next 3 years than those employed full time (6 percent) (tables 12 and 29).
- Full-time instructional faculty and staff without tenure, but on tenure track (8 percent) were more likely to have indicated they may leave postsecondary education for outside employment opportunities within the next 3 years than those with tenure (3 percent). Likewise, instructors (10 percent), lecturers (14 percent), and assistant professors (8 percent) reported they were very likely to leave postsecondary education for outside employment more often than full professors (2 percent) (table 12).
- Job satisfaction was related to the likelihood that full-time instructional faculty and staff would leave postsecondary education. Forty-four percent of those who indicated that they were very likely to leave expressed dissatisfaction with their jobs overall. In contrast, 11 percent of those who indicated that they were not at all likely to leave postsecondary employment indicated they were dissatisfied with their jobs overall (table 14).

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Introduction

The flow of faculty into and out of higher education is a topic of continuing concern to the higher education community and to educational policy makers. The reasons for the interest in this issue are multi-faceted and derive from a variety of sources. In *American Professors: A National Resource Imperiled*, Bowen and Schuster² alerted policy makers to the impending significant attrition of faculty who were hired during the growth years of the 1950s and 1960s. They estimated that between the years 1985 and 2009, there would be a need to replace approximately two-thirds of the entire faculty of 1985, with the bulk of the hiring beginning in 1995. Their projections were made using estimates of retirement and other forms of attrition related to voluntary and involuntary separation from academe. Whereas Bowen and Schuster made estimates of attrition for faculty in general, a 1989 study of the academic labor market for faculty in the arts and sciences made more detailed estimates of faculty retirement and attrition for that one segment of higher education.³

The 1986 amendments to the Age Discrimination in Employment Act raised the question of faculty retirement decision making and behavior for higher education in a different way. In this case the questions revolved around the ages at which tenured faculty members would retire in the absence of a mandatory retirement age. The 1991 report of the Committee on Mandatory Retirement in Higher Education attempted to project the consequences of the absence of a mandatory retirement age for tenured faculty. The conclusions of the committee were (1) that at most colleges and universities few tenured faculty would continue working past age 70, in the absence of a mandatory retirement age, and (2) that at some research universities a higher proportion of tenured faculty would continue working, in the absence of a mandated retirement age.⁴

Higher education institutions⁵ have now entered the era of the anticipated major turnover in faculty that was referenced in the publications cited above, as well as in many other reports and publications. This report is designed to provide descriptive information about faculty plans for retirement and job change primarily using data from the 1993 National Study of Postsecondary Faculty (NSOPF-93). Data from the 1988 National Survey of Postsecondary Faculty (NSOPF-88) provide additional information on the age distribution of full-time instructional faculty and staff in the fall of 1987. All differences cited in this report are significant at the .05 level.⁶

The analysis of data was undertaken to address five basic questions regarding full- and part-time instructional faculty and staff:⁷ (1) How likely is it that faculty will leave their current job in the three years following the fall of 1992? (2) What are the anticipated ages of retirement of instructional faculty and staff? (3) What are the ages at which instructional faculty and staff plan to leave postsecondary employment? (4) What factors are related to a willingness to take early retirement? and (5) What factors are related to the likelihood that instructional faculty and staff will retire or leave postsecondary education?

² Bowen, Howard R, and Schuster, Jack H. *American Professors: A National Resource Imperiled*, (New York: Oxford University Press), 1986.

³ Bowen, William G., and Sosa, Julie Ann, *Prospects for Faculty in the Arts and Sciences*, (Princeton, New Jersey: Princeton University Press), 1989.

⁴ Hammond, P. Brett, and Morgan, Harriet P. (Eds), *Ending Mandatory Retirement For Tenured Faculty*, (Washington, D.C.: National Academy Press), 1991.

⁵ All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A. A.) or higher degrees and whose accreditation at the higher level is recognized by the U. S. Department of Education.

⁶ In accordance with NCES standards, the Bonferroni adjustment to the significance level was used when multiple comparisons were made. With this adjustment, the .05 significance level was divided by the total number of comparisons made. Consequently, the t-value required for statistical significance in comparisons across institution types and program areas was approximately 2.8—a considerably more rigorous requirement than the 1.96 t-value required for a single comparison. See the *Technical Notes* for a description of accuracy of estimates.

⁷ For purposes of this report instructional faculty and staff refers to those individuals who had any instructional duties in the 1992 fall term related to credit courses, advising, or supervising academic activities for credit. Full- or part-time instructional faculty refers to the employment status at the institution rather than to any instructional responsibilities.

Characteristics of Full-time Instructional Faculty and Staff

In the fall of 1992, there were 528,260 full-time instructional faculty and staff who included among their responsibilities, at least some instructional duties for credit that academic term. Full-time instructional faculty and staff were, on average, one year older in the fall of 1992 than in the fall of 1987. The average age increased from 47 years old in the fall of 1987 to 48 years old in the fall of 1992 (table 1). One-quarter (26 percent) of the full-time instructional faculty and staff were age 55 and older in the fall of 1992 (table 1). Thirty-six percent were 45-54 years old. Thirty percent were 35-44 years old and eight percent of full-time instructional faculty and staff were under 35 years old in the fall of 1992. Similarly, about one-quarter of full-time instructional faculty and staff were 55 and older in all disciplines (table 2).

Sixty-seven percent of full-time instructional faculty and staff were male. Thirty percent of the male faculty were age 55 and older. Among females, only 18 percent were 55 and older (table 3). Eighty-six percent of the full-time instructional faculty and staff were white (nonminority) with 26 percent of those age 55 and older. Among the minority faculty, 22 percent were age 55 and older.

Forty-eight percent of full-time instructional faculty and staff with the rank of full professor were 55 and older, while only 21 percent of associate professors were age 55 and older. Among all full-time tenured instructional faculty and staff, 37 percent were age 55 and older compared with only 6 percent of those on a tenure track and twelve percent of those not on a tenure track (table 4).

Table 1.—Number of full-time instructional faculty and staff, average age, and age distribution, by year: Fall 1987 and fall 1992

Year	Full-time instructional faculty and staff	Average age	Age distribution							
			Under 35	35–44	45–54	55–59	60–64	65–69	70	Over 70
1992										
All institutions*	528,260	48.0	8.2	29.7	36.4	12.8	8.4	3.4	0.3	0.8
1987										
All institutions*	514,571	47.0	10.2	31.6	34.1	11.7	8.7	3.3	0.3	0.2

* All accredited, nonproprietary U.S. postsecondary institutions that grant a 2-year (A.A.) or higher degree and whose accreditation at the higher education level is recognized by the U.S. Department of Education.

NOTE: Details may not add to total because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty, "Faculty Survey" and 1988 National Survey of Postsecondary Faculty, "Faculty Survey."

Table 2.—Number of full-time instructional faculty and staff, and percentage age 55 and older, by type and control of institution and program area: Fall 1987 and fall 1992

Type and control of institution and program area	Fall 1987		Fall 1992	
	Number	Percentage 55 and older	Number	Percentage 55 and older
All full-time instructional faculty and staff ¹	514,571	24.1	528,260	25.7
By type and control ²				
Public research	101,951	25.6	107,358	26.5
Private research	41,574	20.6	32,164	23.4
Public doctoral ³	56,139	25.1	52,808	24.4
Private doctoral ³	25,065	25.0	28,684	24.5
Public comprehensive	96,981	25.8	94,476	26.6
Private comprehensive	36,842	22.1	38,561	29.2
Private liberal arts	38,446	26.1	38,052	25.2
Public two-year	96,045	22.3	109,957	23.7
Other ⁴	21,528	21.4	26,200	29.8
By program area				
Agriculture/ home economics	12,293	20.3	11,366	31.5
Business	39,672	22.3	39,928	25.4
Education	40,711	27.7	37,066	29.3
Engineering	26,199	29.6	24,431	30.6
Fine arts	32,822	17.5	31,658	26.1
Humanities	74,871	30.0	73,922	29.4
Natural sciences	93,811	20.6	101,504	25.6
Social sciences	55,300	24.6	58,232	25.6
Other	44,762	25.2	61,805	24.6

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1988 National Survey of Postsecondary Faculty, 1993 National Study of Postsecondary Faculty.

Table 3.—Age distribution of full-time instructional faculty and staff
in higher education institutions, by gender and
minority/nonminority status: Fall 1992

Age	Full-time instructional faculty and staff			
	Male		Female	
	Number	Percent	Number	Percent
All ages	352,719	100.0	175,541	100.0
Under 35	24,872	7.1	18,181	10.4
35–44	94,408	26.8	62,524	35.6
45–54	128,790	36.5	63,766	36.3
55–59	51,144	14.5	16,188	9.2
60–64	35,089	10.0	9,519	5.4
65–69	14,057	4.0	3,882	2.2
70	—	0.4	—	0.2
Over 70	2,948	0.8	1,078	0.6
	Nonminority		Minority	
All ages	456,742	100.0	71,518	100.0
Under 35	33,979	7.4	9,074	12.7
35–44	132,033	28.9	24,899	34.8
45–54	170,518	37.3	22,038	30.8
55–59	59,500	13.0	7,832	11.0
60–64	39,433	8.6	5,176	7.2
65–69	16,049	3.5	1,890	2.6
70	1,694	0.4	—	0.2
Over 70	3,536	0.8	—	0.7

—Not enough cases for a reliable estimate.

NOTE: Details may not add to total because of rounding.

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

Table 4.—Number of full-time instructional faculty and staff in higher education institutions, and percentage age 55 and older, by academic rank and tenure status: Fall 1992

Rank and tenure status	Full-time instructional faculty and staff	
	Total number	Percentage age 55 and older
All full-time instructional faculty and staff	528,260	25.7
Academic rank		
Full professor	160,558	48.1
Associate professor	123,708	21.4
Assistant professor	124,293	9.4
Instructor	73,897	14.8
Lecturer	11,869	16.1
Other	17,072	17.8
Not applicable	16,862	26.4
Tenure status		
Tenured	286,099	37.3
On tenure track but not tenured	113,705	6.1
Not on tenure track	59,397	12.4
No tenure system for faculty status	24,971	18.7
No tenure system at institution	44,087	22.4

NOTE: Details may not add to total because of rounding.

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

Retirement and Other Separation and Mobility Plans of Full-time Instructional Faculty and Staff

Faculty movement from one postsecondary institution to another is very different from leaving postsecondary education altogether. Retirement from the labor force or leaving an institution to take a full- or part-time job outside of postsecondary education is an actual loss to the professoriate, while seeking a full- or part-time job at another postsecondary institution is not a loss to the professoriate, although it is an institutional loss.

In the fall of 1992, 7 percent of full-time instructional faculty and staff indicated that it was very likely that they would retire from the labor force in the next 3 years (table 5). Fourteen percent of full-time instructional faculty and staff indicated that they probably would move to another postsecondary institution in the next 3 years (3.3 percent to accept a part-time job and 10.8 percent to accept a full-time job). Six percent of the full-time instructional faculty and staff indicated that it was very likely they would move to a full-time job outside of postsecondary education in the next 3 years and three percent indicated that it was very likely that they would accept a part-time job outside of postsecondary education in the next 3 years. Overall, 22 percent of full-time instructional faculty and staff indicated that it was very likely they would make a change in their employment in the next 3 years.

Table 5.—Percentage of full-time instructional faculty
and staff in higher education institutions with
various plans for the next 3 years: Fall 1992

Plans	Percent
Retire from the labor force	7.2
Accept a part-time job at a different post- secondary institution	3.3
Accept a full-time job at a different post- secondary institution	10.8
Accept a part-time job outside of post- secondary education	2.7
Accept a full-time job outside of post- secondary education	6.1
<u>Do one or more of the preceding</u>	<u>22.4</u>

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

Not surprisingly, those who indicated they were very likely to retire within the next 3 years differed from their colleagues on several key dimensions. For example, older faculty were more likely to report retirement intentions than younger faculty. Full-time instructional faculty and staff aged 65–69 (46 percent) were more likely to report retirement intentions in the fall of 1992 than those aged 45–54 (2 percent) (table 6). A smaller percentage, however, of full-time instructional faculty and staff over age 70 (32 percent) reported they were very likely to retire in the next 3 years than those aged 65–69 years old. It appears as if those who continue working past age 70 have less interest in retirement than their colleagues and may plan to continue working as long as they are able to do so.

The largest group of full-time instructional faculty and staff planning to retire within 3 years held the highest academic rank. While 12 percent of full professors indicated they were very likely to retire within 3 years, only 6 percent of associate professors and 3 percent of assistant professors indicated they would

probably retire in the same period (table 6). As seen in table 4, a larger percentage of full-professors were 55 or older than associate and assistant professors. Likewise, the largest proportion of the “very likely” retirements will come from the ranks of tenured faculty. Ten percent of full-time tenured instructional faculty and staff indicated they were very likely to retire within 3 years, but only 2 percent of nontenured tenure track faculty and 3 percent of those not on a tenure track at institutions with tenure systems indicated the same possibility (table 6). Again, a larger percentage of tenured faculty were 55 and older than tenure track faculty or faculty not on tenure track (table 4).

Retirement plans varied by gender and race/ethnicity. Eight percent of males, but only 6 percent of females reported they were very likely to retire in the next 3 years (table 7). This difference probably reflects the higher percentage of male versus female instructional faculty and staff over the age of 55 (table 3). Although an average of 7 percent of all full-time instructional faculty and staff indicated they were very likely to retire within the next 3 years, the data suggest interesting differences across racial/ethnic groups. For example, only 4 percent of Asian or Pacific Islanders indicated they were very likely to retire in the next 3 years, but 8 percent of black, non-Hispanics and 7 percent of white, non-Hispanics reported this intention (table 7).

There were also differences across type and control of institution. The proportion of instructional faculty and staff very likely to retire within 3 years varied from 3 percent at private doctoral universities to 9 percent at public 2-year institutions (table 7). The difference in the proportion of those very likely to retire at public doctoral (8 percent) and private doctoral institutions (3 percent) may reflect differing conditions in general at public versus privately controlled postsecondary institutions. Likewise, the higher percentage of faculty very likely to retire at public 2-year colleges (9 percent) may relate to the working conditions and the more one-dimensional career (primarily teaching oriented) at this distinctive type of postsecondary institution. The differences in the percentage very likely to retire, however, cannot be explained by differences in the percentage age 55 and older at each of these types of institutions. As seen in table 2, the percentage of instructional faculty and staff age 55 and older is about the same in each of these types of institutions.

Retirement intentions ranged from 6 percent to 11 percent across program areas in the fall of 1992 (table 7). A higher percentage of full-time instructional faculty and staff in education (11 percent) reported that they were very likely to retire in the next 3 years than faculty in the social sciences (6 percent) or natural sciences (7 percent) (table 7). This may be related in part, however, to the current age of full-time instructional faculty and staff in these program areas in the fall of 1992. Full-time instructional faculty and staff in education were 50 years old, on average, in the fall of 1992, compared with an average age of 48 years in both the social sciences and natural sciences.⁸

Overall, career satisfaction does not appear to be a major motivating factor among full-time instructional faculty and staff who indicated that they were very likely to retire within the next 3 years. Of those who responded they were very likely to retire within the next 3 years, only 15 percent reported they were somewhat or very dissatisfied with their job overall (table 8). Indeed, among full-time instructional faculty and staff who indicated that they were very likely to retire in the next 3 years, the level of satisfaction with various career dimensions is quite remarkable. Ninety-one percent of full-time instructional faculty and staff very likely to retire within 3 years were somewhat or very satisfied with their job security and 82 percent were satisfied with their benefits. The areas where dissatisfaction was highest included time available to keep current in their field (42 percent) and salary (38 percent).

⁸ U.S. Department of Education, National Center for Education Statistics, *Instructional Faculty and Staff in Higher Education Institutions: Fall 1987 and fall 1992*, NCES 97-470, October 1997.

Table 6.—Number of full-time instructional faculty and staff in higher education institutions, and percentage who reported that they were "very likely" to retire in the next 3 years, by current age, rank, and tenure status: Fall 1992

Age, rank, and tenure status	Number	Percentage "very likely" to retire
All full-time instructional faculty and staff	528,260	7.2
By current age		
Under 35	43,053	0.6
35–44	156,932	1.0
45–54	192,556	2.3
55–59	67,332	10.3
60–64	44,609	31.6
65–69	17,938	46.5
70	1,813	64.4
Over 70	4,026	31.8
By academic rank		
Full professor	160,558	12.4
Associate professor	123,708	5.8
Assistant professor	124,293	2.8
Instructor	73,897	6.3
Lecturer	11,869	5.6
Other	17,072	2.9
Not applicable	16,862	9.3
By tenure status		
Tenured	286,099	10.3
On tenure track but not tenured	113,705	1.5
Not on tenure track	59,397	3.1
No tenure system for faculty status	24,971	6.6
No tenure system at institution	44,088	7.3

NOTE: Details may not add to total because of rounding.

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

Table 7.—Number of full-time instructional faculty and staff, and percentage who reported that they were "very likely" to retire in the next 3 years, by type and control of institution, program area, gender, and race/ethnicity: Fall 1992

Type and control of institution, program area, gender, and race/ethnicity	Number	Percentage "very likely" to retire
All full-time instructional faculty and staff ¹	528,260	7.2
Type and control ²		
Public research	107,358	5.6
Private research	32,164	5.0
Public doctoral ³	52,808	7.7
Private doctoral ³	28,684	3.4
Public comprehensive	94,476	8.4
Private comprehensive	38,561	6.1
Private liberal arts	38,052	7.0
Public two-year	109,957	9.4
Other ⁴	26,200	7.6
Program area		
Agriculture/home economics	11,366	9.1
Business	39,928	8.6
Education	37,066	10.6
Engineering	24,431	8.7
Fine arts	31,658	8.8
Humanities	73,922	8.0
Natural sciences	101,504	6.6
Social sciences	58,232	5.6
Other	61,804	7.2
Gender		
Male	352,719	8.0
Female	175,541	5.6
Race/ethnicity		
American Indian/Alaskan Native	2,558	12.6
Asian or Pacific Islander	27,710	3.5
Black, non-Hispanic	27,398	7.8
Hispanic	13,853	6.1
White, non-Hispanic	456,742	7.4

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table 8.—Percentage distribution of full-time instructional faculty and staff in higher education institutions "very likely" to retire in the next 3 years, by level of satisfaction with selected work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
Number very likely to retire	37,896		
Workload		24.1	75.9
Job security		9.4	90.6
Salary		37.7	62.3
Time available for keeping current in my field		42.5	57.5
Opportunity for advancement in rank at this institution		28.9	71.1
Freedom to do outside consulting		17.8	82.2
Benefits, generally		17.9	82.1
Spouse or partner employment opportunities in geographic area		18.9	81.1
Job here, overall		14.8	85.2

NOTE: Details may not add to total because of rounding.

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

Generally, a higher percentage of all full-time instructional faculty and staff expressed dissatisfaction with aspects of their job than full-time instructional faculty and staff who reported intentions of retiring soon (tables 9 and 11). It is important to recognize that faculty who were very dissatisfied with their jobs may have left academe by the time they were 55 years old, or had reached the age they would contemplate retirement. This may explain, in part, why fewer instructional faculty and staff age 55 and older, or who reported intentions of retiring soon, expressed dissatisfaction with aspects of their job than all full-time instructional faculty and staff.

One-quarter of full-time instructional faculty and staff age 55 and older expressed dissatisfaction with their workload in the fall of 1992 (table 10). This was less than the 32 percent of all full-time instructional faculty and staff who expressed dissatisfaction with their workload (table 9), but no different from the 23 percent expressing dissatisfaction with their workload who were 55 and older and very likely to retire in the next 3 years (table 11). In other words, there was no difference in the fall of 1992 in the satisfaction with workload between those age 55 and older, and those age 55 and older very likely to retire in the next 3 years. Those age 55 and older were more satisfied with their workload, however, than all full-time instructional faculty and staff.

This was also true for overall job satisfaction in the fall of 1992. Whereas 16 percent of all full-time instructional faculty and staff expressed dissatisfaction with their job overall (table 9), 12 percent of full-time instructional faculty and staff age 55 and older expressed dissatisfaction (table 10), and 13 percent of full-time instructional faculty and staff age 55 and older very likely to retire in the next 3 years expressed dissatisfaction with their job overall (table 11).

Table 9.—Percentage distribution of full-time instructional faculty and staff in higher education institutions, by level of satisfaction with selected work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
All full-time instructional faculty and staff	528,260		
Workload		31.6	68.4
Job security		19.3	80.7
Salary		45.3	54.7
Time available for keeping current in my field		51.7	48.3
Opportunity for advancement in rank at this institution		31.4	68.6
Freedom to do outside consulting		21.1	78.9
Benefits, generally		24.9	75.1
Spouse or partner employment opportunities in geographic area		26.3	73.7
Job here, overall		16.0	84.0

NOTE: Details may not add to total because of rounding.

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 higher education institutions age 55 and older, by level of satisfaction with selected work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
All full-time instructional faculty and staff, age 55 and older	135,718		
Workload		25.1	74.9
Job security		11.2	88.8
Salary		39.9	60.1
Time available for keeping current in my field		40.7	59.3
Opportunity for advancement in rank at this institution		26.9	73.1
Freedom to do outside consulting		16.5	83.5
Benefits, generally		20.2	79.8
Spouse or partner employment opportunities in geographic area		20.2	79.8
Job here, overall		12.6	87.4

NOTE: Details may not add to total because of rounding.

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

Table 11.—Percentage distribution of full-time instructional faculty and staff in higher education institutions age 55 and older who reported that they were "very likely" to retire in the next 3 years, by level of satisfaction with selected work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
All full-time instructional faculty and staff, age 55 and older, very likely to retire	31,789		
Workload		22.6	77.4
Job security		7.5	92.5
Salary		36.4	63.6
Time available for keeping current in my field		40.3	59.7
Opportunity for advancement in rank at this institution		26.5	73.6
Freedom to do outside consulting		16.1	83.9
Benefits, generally		16.5	83.5
Spouse or partner employment opportunities in geographic area		17.8	82.2
Job here, overall		12.8	87.2

NOTE: Details may not add to total because of rounding.

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

Mobility to a Job Not in Postsecondary Education

There were about 25,000 full-time instructional faculty and staff interested in moving to new opportunities outside of higher education in the fall of 1992 (2.7 + 6.1 percent of 528,260) (table 5). Six percent of full-time instructional faculty and staff indicated it was very likely that they would accept a different full-time job not in postsecondary education in the next 3 years (table 12). In general, there appears to be an inverse relationship between age and the percentage of instructional faculty and staff citing the likelihood of accepting a different full-time non-postsecondary job. The younger the full-time instructional faculty and staff were in the fall of 1992, the more likely they were to cite that they would move to another full-time job outside of postsecondary education in the next 3 years (table 12).

A larger percentage of full-time females (8 percent) indicated the possibility of a move out of postsecondary education for another full-time job than full-time males (5 percent) (table 12). Full-time black, non-Hispanic (10 percent) instructional faculty and staff cited an interest in leaving postsecondary education more frequently than full-time white, non-Hispanic (6 percent) instructional faculty and staff (table 12).

Interest in career opportunities outside of higher education varied by academic rank and tenure status. Assistant professors (8 percent), instructors (10 percent), and lecturers (14 percent) were more likely than full professors (2 percent) to report they were very likely to leave their current job for a position outside postsecondary education. Similarly, full-time untenured tenure track faculty (8 percent), those not on the tenure track (15 percent), and those for whom there is no tenure system available for their faculty status (11 percent) were more likely to report the intention of leaving academe than were full-time tenured instructional faculty and staff (3 percent) in the fall of 1992 (table 12).

Less than 10 percent of full-time instructional faculty and staff in any one program area in the fall of 1992 indicated it was very likely they would leave postsecondary education during the next 3 years. Four percent of full-time instructional faculty and staff in the humanities and natural sciences reported they were very likely to leave their current job and accept a full-time job outside of academe during the next 3 years. Five percent of those in the social sciences and 6 percent of full-time instructional faculty and staff in agriculture/home economics, business, education, engineering and fine arts reported this intention in the fall of 1992 (table 13).

Unlike those planning to retire in the next 3 years, job satisfaction appears to be related to the likelihood that full-time instructional faculty and staff will leave their jobs for full-time positions outside of postsecondary education (table 14). Eighty-five percent (table 8) of those very likely to retire in the next 3 years were satisfied with their jobs overall compared with 56 percent (table 14) of those who were very likely to leave postsecondary education in the next 3 years.

Generally, faculty who were "somewhat likely" or "very likely" to leave their job in higher education were more dissatisfied than those who indicated they were "not at all likely" to leave their postsecondary position. For example, 46 percent and 34 percent of full-time instructional faculty and staff very likely and somewhat likely to leave postsecondary education, respectively, expressed dissatisfaction with their job security compared with 14 percent who were not at all likely to leave postsecondary education; 64 percent expressed dissatisfaction with the time available to keep current in one's disciplinary field compared with 48 percent of full-time instructional faculty and staff not at all likely to leave; 62 percent and 46 percent expressed dissatisfaction with advancement opportunities compared with 26 percent of those not at all likely to leave; and 62 percent and 54 percent expressed dissatisfaction with their salary compared with 42 percent of full-time instructional faculty and staff not at all likely to leave postsecondary employment in the next 3 years (table 14).

Overall job satisfaction, likewise, revealed differences between faculty who were likely and not likely to leave postsecondary employment. Although 84 percent of all full-time instructional faculty and staff reported they were satisfied with their jobs overall, three-quarters of those somewhat likely to leave employment in academe and only 56 percent of those very likely to leave academe, expressed satisfaction with their jobs overall. In contrast, nearly 90 percent of those not at all likely to leave their position in higher education indicated they were satisfied with their job overall (table 14).

Table 12.—Number of full-time instructional faculty and staff in higher education institutions, and percentage who reported that they were "very likely" to leave their current job to accept a different full-time nonpostsecondary job during the next 3 years, by current age, gender, race/ethnicity, academic rank, and tenure status: Fall 1992

Age, gender, race/ethnicity, rank and tenure status	Number	Percentage "very likely" to leave
All full-time instructional faculty and staff	528,260	6.1
Current age		
Under 35	43,053	11.7
35–44	156,932	8.3
45–54	192,556	5.0
55–59	67,332	4.3
60–64	44,609	2.4
65–69	17,938	2.8
70	1,813	0.0
Over 70	4,026	4.9
Gender		
Male	352,719	5.4
Female	175,541	7.6
Race/ethnicity		
American Indian/Alaskan Native	2,558	12.6
Asian or Pacific Islander	27,710	8.8
Black, non-Hispanic	27,398	9.7
Hispanic	13,853	8.0
White, non-Hispanic	456,742	5.6
Academic rank		
Full professor	160,558	2.5
Associate professor	123,708	4.9
Assistant professor	124,293	8.4
Instructor	73,897	9.9
Lecturer	11,869	13.6
Other	17,072	13.6
Not applicable	16,862	3.0
Tenure status		
Tenured	286,098	3.1
On tenure track but not tenured	113,705	8.1
Not on tenure track	59,397	14.7
No tenure system for faculty status	24,971	11.0
No tenure system at institution	44,087	6.0

NOTE: Details may not add to total because of rounding.

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

Table 13.—Number of full-time instructional faculty and staff, and percentage who reported that they were "very likely" to leave their current job and accept a different full-time job not in postsecondary education during the next 3 years, by type and control of institution, and program area: Fall 1992

Type and control of institution and program area	Number	Percentage "very likely" to leave
All full-time instructional faculty and staff ¹	528,260	6.1
Type and control ²		
Public research	107,358	5.8
Private research	32,164	7.4
Public doctoral ³	52,808	5.9
Private doctoral ³	28,684	5.8
Public comprehensive	94,476	5.7
Private comprehensive	38,561	6.9
Private liberal arts	38,052	7.7
Public two-year	109,957	5.5
Other ⁴	26,200	6.9
Program area		
Agriculture/home economics	11,366	5.6
Business	39,928	6.5
Education	37,066	6.4
Engineering	24,431	6.4
Fine arts	31,658	6.1
Humanities	73,922	3.9
Natural sciences	101,504	4.4
Social sciences	58,232	5.4
Other	61,804	7.3

¹ Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

² All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³ Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴ Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table 14.—Job satisfaction ratings of full-time instructional faculty and staff in higher education institutions who reported that they were "not at all likely," "somewhat likely," and "very likely" to leave their current job to accept a different full-time job outside of postsecondary education in the next 3 years: Fall 1992

Job satisfaction dimension	All full-time faculty		Not at all likely		Somewhat likely		Very likely	
	Satisfied	Dissatisfied	Satisfied	Dissatisfied	Satisfied	Dissatisfied	Satisfied	Dissatisfied
Overall job satisfaction	84.0	16.0	88.6	11.4	74.7	25.3	55.8	44.2
Workload	68.4	31.6	71.8	28.2	58.1	41.9	56.6	43.4
Job security	80.7	19.3	86.3	13.7	66.0	34.0	54.0	46.0
Advancement opportunities	68.6	31.4	74.5	25.5	54.4	45.6	37.7	62.3
Time available for keeping current in field	48.3	51.7	52.2	47.8	36.3	63.7	36.3	63.7
Freedom to do outside consulting	78.9	21.1	81.5	18.5	72.4	27.6	65.5	34.5
Salary	54.7	45.3	58.2	41.8	45.8	54.2	37.8	62.2
Benefits	75.1	24.9	77.4	22.6	68.5	31.5	65.1	34.9
Employment opportunities for spouse or partner	73.7	26.3	76.1	23.9	67.1	32.9	63.8	36.2

NOTE: Details may not add to total because of rounding.

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

Age at Which Full-Time Instructional Faculty and Staff Plan to Retire or Leave Higher Education Employment

Thirty percent of full-time instructional faculty and staff expected to stop working at a postsecondary institution between the ages of 65 and 69 (table 15). An additional 13 percent cited age 70 as the expected age to stop work. Twenty-five percent of full-time instructional faculty and staff indicated they “did not know” when they would stop working at a postsecondary institution.

Generally, males reported intentions of working longer than females. For example, about one-third (32 percent) of full-time male instructional faculty and staff in the fall of 1992 thought they would most likely stop working at a postsecondary institution between 65–69 years old compared with one-quarter of females (table 15). A larger percentage of females (31 percent) than males (22 percent), however, indicated they did not know when they expected to stop work (table 15).

More than one-half of instructional faculty and staff in business and education indicated they expected to stop working at a postsecondary institution before age 65, or they did not know the age they were most likely to retire (table 16). In all other fields, about one-half planned to stop working at a postsecondary institution before they reached age 65 and/or were unsure of when they would stop working. About one-quarter of instructional faculty and staff in all program areas indicated they did not know when they expected to stop working at a postsecondary institution (table 16).

A larger proportion of full-professors (58 percent) than associate professors (53 percent) anticipated working to age 65 or beyond. Furthermore, a larger proportion of full (58 percent) and associate professors (53 percent) anticipated working to age 65 or beyond than those from other ranks (assistant professors, 42 percent; instructors, 31 percent; lecturers, 37 percent) (table 17). Also, smaller percentages of instructional faculty and staff who were full professors indicated they did not know at what age they expected to stop working at a postsecondary institution than any other academic rank in the fall of 1992. Tenured faculty were less likely than untenured instructional faculty and staff to have indicated they did not know at what age they expected to stop working at a postsecondary institution. Larger percentages of tenured instructional faculty and staff indicated they expected to stop working at age 65 or older than non-tenured or non-tenure status faculty (table 17). Also, a higher percentage of those without tenure, but on tenure track, indicated that they would stop working at a postsecondary institution at age 65 or older than non-tenure track faculty or faculty in institutions without tenure systems (table 17).

More than one-half (57 percent) of all full-time instructional faculty and staff indicated they expected to retire between the ages of 60 and 70. However, there was substantial uncertainty among full-time instructional faculty and staff about the age when they expected to retire from paid employment. Thirty percent reported they did not know when they would retire (table 18).

Gender and race/ethnicity were associated with plans for retirement from paid employment. Of full-time male instructional faculty and staff in the fall of 1992, 57 percent reported they expected to work until age 65 or above. In contrast, only 44 percent of full-time female instructional faculty and staff indicated that they intended to remain in paid employment until at least age 65. Retirement plans varied by racial/ethnic group as well, with whites and Asians having similar attitudes about their expected age of retirement. Fifty-four percent of whites and 52 percent of Asians indicated they expected to work until they were age 65 or older (table 18).

There were also differences in expected age of retirement across type and control of institution. Instructional faculty and staff employed full time in private institutions (private research, 62 percent; private doctoral, 60 percent; private comprehensive 57 percent; private liberal arts, 57 percent) and public research institutions (58 percent) were more likely than instructional faculty and staff in public 2-year institutions (41 percent) to report the intention of remaining in paid employment until age 65 or older (table 19). In each of these types of institutions, except public 2-year institutions, more than 50 percent of faculty plan to work at least until age 65.

Variations in age of expected retirement from paid employment were also evident across program areas or teaching disciplines of instructional faculty and staff in the fall of 1992. Among full-time instructional faculty and staff designating an expected retirement age, the age range of 65–69 was cited most often for all program areas (table 19), except in engineering and in the social sciences, where there was no difference between the percent expecting to retire between 65–69 and the percent expecting to retire at age 70.

Table 15.—Age at which full-time instructional faculty and staff in higher education institutions are most likely to stop working at a postsecondary institution, by current age, gender, and race/ethnicity: Fall 1992

Age, gender, and race/ethnicity	Number	Percentage expecting to stop work at age:							
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	Don't know
All full-time instructional faculty and staff	528,260	2.0	1.9	7.0	17.3	29.8	12.8	4.1	25.1
By current age									
Under 35	43,053	8.0	4.0	5.0	12.2	18.0	7.6	1.8	43.4
35–44	156,932	3.7	2.9	7.1	13.4	27.2	11.6	2.8	31.3
45–54	192,556	0.6	2.0	10.0	19.3	30.6	12.6	3.4	21.4
55–59	67,332			6.2	26.4	33.2	14.0	2.8	17.3
60–64	44,609				22.8	41.6	15.1	4.1	16.4
65–69	17,938					40.8	27.5	14.9	16.8
70	1,813						50.2	25.2	24.6
Over 70	4,026							73.5	26.5
By gender									
Male	352,719	1.6	1.3	6.1	17.1	32.1	14.9	4.7	22.2
Female	175,541	2.7	3.1	8.8	17.8	25.2	8.7	2.8	30.9
By race/ethnicity									
American Indian or Alaskan Native	2,558	3.2	—	8.9	23.5	28.9	7.0	2.4	25.4
Asian or Pacific Islander	27,710	1.6	1.9	3.9	15.4	29.8	9.9	3.3	34.3
Black, non-Hispanic	27,398	4.6	4.2	10.8	17.1	25.1	8.4	2.6	27.3
Hispanic	13,853	2.2	2.8	5.8	15.2	26.6	13.6	4.3	29.5
White, non-Hispanic	456,742	1.8	1.8	7.0	17.5	30.2	13.3	4.2	24.3

—Not enough cases for a reliable estimate.

NOTE: Details may not add to total because of rounding.

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

Table 16.—Age at which full-time instructional faculty and staff are most likely to stop working at a postsecondary institution, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Number	Percentage expecting to stop work at age:							
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	Don't know
All full-time instructional faculty and staff ¹	528,260	2.0	1.9	7.0	17.3	29.8	12.8	4.1	25.1
By type and control ²									
Public research	107,358	2.0	1.1	5.1	14.0	32.5	16.1	4.7	24.6
Private research	32,164	1.7	0.9	1.2	9.4	31.4	19.0	8.0	28.2
Public doctoral ³	52,808	2.0	1.8	6.4	18.0	29.3	13.8	3.6	25.1
Private doctoral ³	28,684	1.7	2.0	5.0	8.0	30.9	15.9	6.3	30.4
Public comprehensive	94,476	1.3	1.7	7.8	21.1	30.1	12.5	3.2	22.3
Private comprehensive	38,561	1.5	1.3	3.6	14.8	30.9	15.8	5.0	27.1
Private liberal arts	38,052	2.4	1.6	3.4	12.3	35.3	13.7	3.8	27.6
Public two-year	109,957	2.4	3.6	13.4	24.7	23.8	6.0	2.6	23.6
Other ⁴	26,200	3.3	1.5	5.5	16.1	31.1	10.7	4.3	27.5
By program area									
Agriculture/ home economics	11,366	1.1	1.1	9.6	16.8	35.0	9.4	3.4	23.7
Business	39,928	2.4	2.6	9.9	20.6	25.8	13.5	3.4	21.9
Education	37,066	1.0	2.4	12.1	23.2	26.1	10.3	1.8	23.0
Engineering	24,431	1.8	1.2	5.4	19.6	28.2	14.9	6.0	23.0
Fine arts	31,658	1.1	2.4	6.0	15.9	32.4	9.3	3.4	29.5
Humanities	73,922	0.9	1.7	5.0	15.7	33.7	14.0	4.7	24.3
Natural sciences	101,504	1.0	1.4	5.3	15.3	33.0	15.2	4.8	24.1
Social sciences	58,232	0.8	1.2	6.7	15.3	33.2	16.6	3.9	22.3
Other	61,804	3.1	2.2	8.0	19.3	24.9	11.5	5.4	25.6

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

NOTE: Details may not add to total because of rounding.

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

Table 17.—Age at which full-time instructional faculty and staff in higher education institutions are most likely to stop working at a postsecondary institution, by academic rank and tenure status: Fall 1992

Rank and tenure status	Number	Percentage expecting to stop work at age:							
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	Don't know
All full-time instructional faculty and staff	528,260	2.0	1.9	7.0	17.3	29.8	12.8	4.1	25.1
By academic rank									
Full professor	160,558	0.4	1.0	5.6	18.2	34.2	16.8	6.5	17.3
Associate professor	123,708	0.7	1.5	7.5	16.5	33.1	15.2	3.3	22.2
Assistant professor	124,293	3.6	1.9	5.7	14.4	27.6	10.8	3.4	32.5
Instructor	73,897	4.3	4.1	10.0	21.2	22.1	5.9	2.7	29.8
Lecturer	11,869	5.3	2.4	5.7	16.9	18.3	14.8	1.9	34.9
Other	17,072	2.5	3.5	10.4	12.8	23.3	7.1	3.9	36.6
Not applicable	16,862	1.2	1.8	9.4	23.3	28.7	8.0	0.4	27.2
By tenure status									
Tenured	286,098	0.4	1.5	7.5	19.3	32.4	15.0	4.8	19.1
On tenure track but not tenured	113,705	3.3	1.8	5.0	13.4	29.2	13.0	3.3	31.0
Not on tenure track	59,397	5.3	2.6	6.3	15.3	23.8	8.9	3.2	34.7
No tenure system for faculty status	24,971	4.4	2.6	6.7	14.2	24.2	6.7	3.9	37.3
No tenure system at institution	44,087	2.8	3.6	9.8	19.0	25.7	7.3	2.8	28.9

NOTE: Details may not add to total because of rounding.

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

Table 18.—Age at which full-time instructional faculty and staff in higher education institutions expect to retire from paid employment, by current age, gender, and race/ethnicity: Fall 1992

Age, gender, and race/ethnicity	Number	Percentage expecting to retire at age:							
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	Don't know
All full-time instructional faculty and staff	528,260	0.1	0.6	3.8	13.1	27.3	16.9	8.6	29.5
By current age									
Under 35	43,053	0.9	2.0	4.9	14.3	25.2	12.0	4.7	36.1
35–44	156,932	0.2	1.1	4.7	12.5	27.2	15.8	7.0	31.6
45–54	192,556	0.0	0.4	4.6	13.9	27.0	16.8	8.6	28.6
55–59	67,332			2.3	16.5	29.0	18.5	6.9	26.7
60–64	44,609				12.8	32.4	20.4	9.2	25.3
65–69	17,938					25.6	26.7	20.2	27.5
70	1,813						35.6	34.6	29.7
Over 70	4,026							73.5	26.5
By gender									
Male	352,719	0.1	0.4	3.0	12.0	28.5	19.1	9.6	27.2
Female	175,541	0.2	1.2	5.3	15.3	24.8	12.5	6.6	34.2
By race/ethnicity									
American Indian or Alaskan Native	2,558	—	—	2.3	15.9	21.2	15.1	12.3	31.4
Asian or Pacific Islander	27,710	—	0.7	3.3	13.1	30.1	16.4	5.6	30.8
Black, non-Hispanic	27,398	0.8	1.7	6.3	14.4	23.7	13.0	8.2	31.9
Hispanic	13,853	—	0.5	5.3	12.0	22.8	18.1	9.9	31.2
White, non-Hispanic	456,742	0.1	0.6	3.6	13.1	27.5	17.2	8.8	29.2

—Not enough cases for a reliable estimate.

NOTE: Details may not add to total because of rounding.

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

Table 19.—Age at which full-time instructional faculty and staff expect to retire from paid employment, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Number	Percentage expecting to retire at age:							
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	Don't know
All full-time instructional faculty and staff ¹	528,260	0.1	0.6	3.8	13.1	27.3	16.9	8.6	29.5
By type and control ²									
Public research	107,358	—	0.3	2.9	10.3	28.1	20.6	9.5	28.3
Private research	32,164	—	—	0.8	7.3	27.2	22.5	12.5	29.4
Public doctoral ³	52,808	—	0.6	3.5	13.6	26.9	18.4	8.3	28.6
Private doctoral ³	28,684	—	—	3.4	7.7	28.6	18.2	13.7	28.3
Public comprehensive	94,476	0.1	0.7	4.3	15.1	27.5	15.6	7.3	29.4
Private comprehensive	38,561	—	0.6	1.9	8.7	26.6	20.5	9.7	31.7
Private liberal arts	38,052	—	0.5	2.7	8.9	31.7	17.3	8.3	30.7
Public two-year	109,957	0.3	1.2	6.8	20.6	24.4	10.6	6.0	30.1
Other ⁴	26,200	—	0.5	2.1	11.2	29.2	16.1	9.6	31.2
By program area									
Agriculture/home economics	11,366	0.0	—	4.4	12.8	33.0	16.1	8.4	25.0
Business	39,928	—	0.9	5.3	16.5	22.5	16.8	9.9	27.9
Education	37,066	—	0.8	6.8	17.0	27.4	13.7	5.6	28.6
Engineering	24,431	0.0	0.5	2.0	14.0	26.5	21.2	10.2	25.6
Fine arts	31,658	0.0	0.2	2.8	9.8	23.7	11.2	11.6	40.8
Humanities	73,922	—	0.8	2.6	11.4	30.4	16.9	8.5	29.1
Natural sciences	101,504	—	0.4	2.5	11.1	29.7	19.2	6.4	30.6
Social sciences	58,232	—	0.4	4.1	10.5	25.7	29.0	9.3	20.0
Other	61,804	0.2	0.7	4.2	15.2	25.6	15.3	11.1	27.7

—Not enough cases for a reliable estimate.

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

NOTE: Details may not add to total because of rounding.

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

Faculty Interest in Early Retirement Options

In the fall of 1992, more than one-third (40 percent) of institutions reported offering an early or phased retirement option to full-time instructional faculty and staff over the previous 5 years. Through these offerings, 23,256 faculty had retired (table 20). Different types of institutions did not offer early or phased retirement at the same rate, however. For example, 77 percent of public research institutions provided such options compared with 49 percent of public 2-year institutions (table 20).

Table 20.—Percentage of higher education institutions that offered early or phased retirement to any full-time instructional faculty and staff during the past 5 years and number of retirees during that period, by type and control of institution: Fall 1992

Type and control of institution	Percentage of institutions	Number of retirees
All institutions ¹	39.7	23,256
By type and control		
Public research	77.0	3,372
Private research	70.4	—
Public doctoral ²	65.8	2,280
Private doctoral ²	44.8	—
Public comprehensive	54.4	4,519
Private comprehensive	55.2	1,075
Private liberal arts	32.8	—
Public 2-year	48.7	7,475
Other ³	10.6	—

—Not enough cases for a reliable estimate.

¹All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

²Includes institutions classified by the Carnegie Foundation as specialized medical schools.

³Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Furthermore, many instructional faculty and staff appeared open to the idea of early retirement opportunities. Twenty-eight percent of full-time instructional faculty and staff indicated a willingness to take early retirement if their institution offered such an option (table 21). This figure, coupled with the 35 percent who said they did not know if they would take an early retirement option if one were offered to them, suggests there is considerable potential for turnover in instructional faculty and staff if institutions desire such change and make attractive incentive retirement options available to them.

As might be expected, full-time instructional faculty and staff aged 60–64 (35 percent) were more willing to take an early retirement option than those under 35 (20 percent); 35–44 (23 percent); or 45–54 (30 percent) (table 21). There was no difference in full-time men's (28 percent) and full-time women's (28 percent) interest in early retirement options (table 21). Interest in early retirement varied by race/ethnicity, however. A higher percentage of black, non-Hispanic (36 percent) instructional faculty and staff employed full time expressed interest in an early retirement option than white, non-Hispanic (27 percent), or Asian or Pacific Islander instructional faculty and staff (26 percent) (table 21).

Interestingly, although public 2-year institutions (49 percent) were less likely to have offered early or phased retirement options over the previous 5 years than public research institutions (77 percent) (table 20), a higher percentage of instructional faculty and staff at public 2-year institutions (36 percent) expressed a willingness to take such an option from their institution if offered than instructional faculty and staff employed by public research institutions (23 percent) (table 22).

At least 20 percent of full-time instructional faculty and staff in each program area indicated a willingness to take an early retirement option if offered one. Thirty-eight percent of full-time instructional faculty and staff in education expressed this willingness compared with 24 percent of those in natural sciences. Across all program areas in the fall of 1992, between 32 and 38 percent of full-time instructional faculty and staff did not know how they would respond to such an offer (table 22).

More than one-half (55 percent) of full-time instructional faculty and staff who expressed a willingness to take an early retirement option if offered by their institution indicated dissatisfaction with the time available for keeping up with their field and almost one-half (47 percent) were dissatisfied with their salary (table 23). In addition, 37 percent of full-time instructional faculty and staff who expressed a willingness to take an early retirement option if offered by their institution indicated dissatisfaction with their workload and 36 percent were dissatisfied with opportunities for advancement in rank at their institution. Still, only 20 percent of full-time instructional faculty and staff willing to take early retirement expressed dissatisfaction with their jobs overall (table 23).

Table 21.—Number of full-time instructional faculty and staff in higher education institutions, and percentage willing to take an early retirement option from their institution if offered, by current age, gender and race/ethnicity: Fall 1992

Age, gender, and race/ethnicity	Number	Percentage responding		
		Yes	No	Don't know
All full-time instructional faculty and staff	528,260	27.7	37.3	35.0
By current age				
Under 35	43,053	20.1	36.1	43.8
35–44	156,932	22.8	39.3	37.9
45–54	192,556	30.2	34.8	35.0
55–59	67,332	32.9	33.7	33.4
60–64	44,609	34.8	37.6	27.6
65–69	17,938	29.4	52.4	18.1
70	1,813	20.1	63.6	16.3
Over 70	4,026	18.8	63.2	18.0
By gender				
Male	352,719	27.7	39.7	32.6
Female	175,541	27.8	32.4	39.8
By race/ethnicity				
American Indian or Alaskan Native	2,558	43.8	28.3	27.8
Asian or Pacific Islander	27,710	25.7	42.8	31.5
Black, non-Hispanic	27,398	36.3	32.7	30.9
Hispanic	13,853	30.4	36.8	32.8
White, non-Hispanic	456,742	27.2	37.3	35.5

NOTE: Details may not add to total because of rounding.

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

Table 22.—Number of full-time instructional faculty and staff, and percentage willing to take an early retirement option from their institution if offered, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Number	Percentage responding		
		Yes	No	Don't know
All full-time instructional faculty and staff ¹	528,260	27.7	37.3	35.0
By type and control ²				
Public research	107,358	22.6	42.2	35.2
Private research	32,164	17.4	47.2	35.4
Public doctoral ³	52,808	27.8	38.0	34.2
Private doctoral ³	28,684	20.1	45.9	34.0
Public comprehensive	94,476	32.2	33.5	34.3
Private comprehensive	38,561	26.2	37.0	36.7
Private liberal arts	38,052	25.4	33.6	41.0
Public 2-year	109,957	35.6	31.0	33.4
Other ⁴	26,200	26.3	39.7	34.0
By program area				
Agriculture/ home economics	11,366	31.9	31.6	36.5
Business	39,928	29.4	39.0	31.6
Education	37,066	37.7	28.4	33.8
Engineering	24,431	23.3	42.4	34.3
Fine arts	31,658	31.6	30.3	38.0
Humanities	73,922	25.4	37.7	36.9
Natural sciences	101,504	23.7	39.1	37.2
Social sciences	58,232	28.6	37.8	33.6
Other	61,804	30.4	37.1	32.5

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

NOTE: Details may not add to total because of rounding.

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

Table 23.—Percentage distribution of full-time instructional faculty and staff in higher education institutions willing to take an early retirement option if offered by their institution, by level of satisfaction with work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
Number willing to take an early retirement option	146,557		
Workload		36.9	63.1
Job security		19.3	80.7
Salary		47.0	53.0
Time available for keeping current in my field		55.3	44.7
Opportunity for advancement in rank at this institution		36.4	63.6
Freedom to do outside consulting		25.0	75.0
Benefits, generally		27.3	72.7
Spouse or partner employment opportunities in geographic area		26.3	73.7
Job here, overall		20.4	79.6

NOTE: Details may not add to total because of rounding.

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

Sixty-eight percent of full-time instructional faculty and staff over age 70 in the fall of 1992 said they would elect, if given the opportunity, to draw on retirement income and continue working at their institution on a part-time basis (table 24). Generally, this concept received favorable responses from all full-time instructional faculty and staff. Among those aged 45–54, nearly one-half reported they would elect this option. Even 38 percent of those under 35 and 39 percent of those aged 35–44 indicated that they would elect this option if given the opportunity (table 24). Full-time males were more likely to report this was an option they would consider (47 percent) than were full-time females (43 percent) (table 24). A larger percentage of black, non-Hispanics (52 percent) indicated they would elect this option than white, non-Hispanics (45 percent). One-quarter of all full-time instructional faculty and staff in the fall of 1992 reported they did not know if they would elect this option if given the opportunity (table 24).

Reactions to the opportunity to draw on retirement income and continue working at the institution on a part-time basis ranged from 41 percent to 51 percent of full-time instructional faculty and staff indicating they would elect this option by type and control of institution (table 25).

One-half of instructional faculty and staff employed full time in agriculture and home economics, business, education, and engineering indicated they would elect to draw retirement income and continue working at their institution on a part-time basis if offered the opportunity (table 25). Thirty percent of instructional faculty and staff employed full time in fine arts reported they did not know if they would elect the option if given the opportunity compared with 18 percent of full-time instructional faculty and staff in engineering (table 25).

Table 24.—Number of full-time instructional faculty and staff in higher education institutions, and percentage who would elect, if given the opportunity, to draw on retirement income and continue working at their institution on a part-time basis, by current age, gender, and race/ethnicity: Fall 1992

Age, gender, and race/ethnicity	Number	Percentage responding		
		Yes	No	Don't know
All full-time instructional faculty and staff	528,260	46.0	28.8	25.2
By current age				
Under 35	43,053	37.9	30.5	31.7
35–44	156,932	38.9	33.8	27.4
45–54	192,556	48.0	27.5	24.6
55–59	67,332	51.2	25.1	23.7
60–64	44,609	54.7	26.3	19.0
65–69	17,938	59.1	19.7	21.2
70	1,813	70.0	9.1	20.9
Over 70	4,026	67.7	21.9	10.4
By gender				
Male	352,719	47.4	28.9	23.6
Female	175,541	43.2	28.6	28.2
By race/ethnicity				
American Indian or Alaskan Native	2,558	50.8	24.5	24.7
Asian or Pacific Islander	27,710	49.8	27.9	22.4
Black, non-Hispanic	27,398	52.5	26.7	20.8
Hispanic	13,853	51.6	26.1	22.4
White, non-Hispanic	456,742	45.2	29.1	25.7

NOTE: Details may not add to total because of rounding.

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

Table 25.—Number of full-time instructional faculty and staff and percentage who would elect, if given the opportunity, to draw on retirement income and continue working at their institution on a part-time basis, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Number	Percentage responding		
		Yes	No	Don't know
All full-time instructional faculty and staff ¹	528,260	46.0	28.8	25.2
By type and control ²				
Public research	107,358	42.5	30.4	27.1
Private research	32,164	42.9	34.9	22.2
Public doctoral ³	52,808	45.7	29.4	24.9
Private doctoral ³	28,684	40.9	31.8	27.3
Public comprehensive	94,476	46.0	29.0	25.0
Private comprehensive	38,561	49.2	26.9	23.9
Private liberal arts	38,052	43.8	25.9	30.3
Public 2-year	109,957	50.9	26.8	22.3
Other ⁴	26,200	48.9	24.8	26.3
By program area				
Agriculture/ home economics	11,366	52.4	19.9	27.7
Business	39,928	50.5	27.8	21.7
Education	37,066	50.2	26.6	23.2
Engineering	24,431	52.6	29.7	17.7
Fine arts	31,658	41.2	28.3	30.5
Humanities	73,922	43.4	29.4	27.2
Natural sciences	101,504	45.4	28.1	26.5
Social sciences	58,232	44.4	31.3	24.3
Other	61,804	47.6	28.7	23.7

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

NOTE: Details may not add to total because of rounding.

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

Characteristics of Part-time Instructional Faculty and Staff

The retirement and/or mobility plans of part-time instructional faculty and staff should be viewed separately from that of full-time instructional faculty and staff given their relationship with the institution. In the fall of 1992 there were 376,675 part-time instructional faculty and staff. Part-time instructional faculty and staff tended to be younger than full-time instructional faculty and staff. Whereas 8 percent of full-time instructional faculty and staff were under age 35 (table 1), 15 percent of those employed part time were less than 35 years old (table 26). Conversely, 26 percent of full-time instructional faculty and staff were age 55 and older (table 1), but only 21 percent of those employed part time were in that age range (table 26).

Table 26.—Age distribution of part-time instructional faculty and staff
in higher education institutions: Fall 1992

Age	Part-time instructional faculty and staff	
	Number	Percent
All part-time instructional faculty and staff	376,675	100.0
Under 35	56,391	15.0
35–44	128,948	34.2
45–54	113,063	30.0
55–59	28,764	7.6
60–64	22,943	6.1
65–69	15,128	4.0
70	3,065	0.8
Over 70	8,373	2.2

NOTE: Details may not add to total because of rounding.

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

Almost one-half (166,335 ÷ 376,675 or 44 percent) of all instructional faculty and staff employed part time were employed at public 2-year institutions with 20 percent age 55 and older (table 27).

Forty-five percent of the part-time instructional faculty and staff were female (table 28) compared with 33 percent of those employed full time (table 3). The proportion of instructional faculty and staff who were minorities in the fall of 1992 was similar regardless of employment status. Twelve percent of the part-time instructional faculty and staff in the fall of 1992 (table 28), and 14 percent of those employed full time by their institutions were minorities (table 3).

Table 27.—Number of part-time instructional faculty and staff and percentage age 55 and older, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Part-time instructional faculty and staff	
	Number	Percentage 55 and older
All part-time instructional faculty and staff ¹	376,675	20.8
By type and control ²		
Public research	25,360	22.0
Private research	17,259	22.0
Public doctoral ³	20,761	21.5
Private doctoral ³	18,014	18.7
Public comprehensive	47,056	22.3
Private comprehensive	36,525	23.4
Private liberal arts	20,909	17.5
Public 2-year	166,335	19.7
Other ⁴	24,454	22.8
By program area		
Agriculture/home economics	2,758	21.6
Business	34,679	21.6
Education	30,758	27.9
Engineering	11,632	23.4
Fine arts	32,814	20.5
Humanities	60,041	21.6
Natural sciences	60,243	23.9
Social sciences	33,853	21.9
Other	60,118	14.8

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table 28.—Age distribution of part-time instructional faculty and staff in higher education institutions, by gender and minority/nonminority status: Fall 1992

Age	Part-time instructional faculty and staff			
	Male		Female	
	Number	Percent	Number	Percent
All ages	208,709	100.0	167,966	100.0
Under 35	27,101	13.0	29,290	17.4
35–44	67,724	32.4	61,225	36.4
45–54	62,914	30.1	50,148	29.9
55–59	17,893	8.6	10,870	6.5
60–64	14,379	6.9	8,564	5.1
65–69	10,477	5.0	4,650	2.8
70	—	1.2	—	0.3
Over 70	5,673	2.7	2,699	1.6
	Nonminority		Minority	
All ages	332,790	100.0	43,885	100.0
Under 35	48,897	14.7	7,494	17.1
35–44	113,545	34.1	15,404	35.1
45–54	99,722	30.0	13,340	30.4
55–59	25,852	7.8	2,912	6.6
60–64	20,588	6.2	2,355	5.4
65–69	13,706	4.1	1,422	3.2
70	2,924	0.9	—	0.3
Over 70	7,556	2.3	—	1.9

—Not enough cases for a reliable estimate.

NOTE: Details may not add to total because of rounding.

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

Retirement and/or Mobility Plans of Part-time Instructional Faculty and Staff

In the fall of 1992, approximately 6 percent of part-time instructional faculty and staff indicated that it was very likely that they would retire from the labor force in the next 3 years (table 29). This is similar to the 7 percent reported by full-time instructional faculty and staff (table 5). The percentage that indicated it was very likely that they would accept a part-time job (12 percent) or a full-time job (17 percent) at a different postsecondary institution (table 29), however, is larger than the percentage for full-time instructional faculty and staff (3 and 11 percent, respectively, table 5). The percentage of part-time instructional faculty and staff indicating the likelihood of accepting a part-time job (7 percent) or a full-time job (15 percent) not at a postsecondary institution (table 29) was also higher than the percentage for those employed full time (3 and 6 percent, respectively, table 5). Similarly, a higher percentage of part-time than full-time instructional faculty and staff indicated they were likely to pursue one or more of these mobility options (38 percent compared with 22 percent).

Overall, the data indicated there was considerable interest in exploring mobility options among part-time instructional faculty and staff at all types of higher education institutions. For example, 45 percent of part-time instructional faculty and staff employed by public comprehensive institutions in the fall of 1992, reported some plans for mobility in the next 3 years (table 29).

Table 29.—Percentage of part-time instructional faculty and staff with various plans for the next 3 years, by type and control of institution, and program area: Fall 1992

Type and control of institution and program area	Number	In the next 3 years very likely to:					Do one or more of the preceding
		Retire from the labor force	Accept a part-time job at a different postsecondary institution	Accept a full-time job at a different postsecondary institution	Accept a part-time job not at a postsecondary institution	Accept a full-time job not at a postsecondary institution	
		Percent	Percent	Percent	Percent	Percent	Percent
All part-time instructional faculty and staff ¹	376,675	6.3	11.7	17.3	6.6	15.1	38.2
By type and control ²							
Public research	25,360	7.1	9.2	16.0	9.0	13.2	40.5
Private research	17,259	3.3	9.7	18.3	2.8	12.6	32.2
Public doctoral ³	20,761	9.1	9.2	14.0	6.1	14.6	37.0
Private doctoral ³	18,014	3.8	8.5	14.2	5.9	11.0	27.4
Public comprehensive	47,056	6.4	14.9	20.5	7.4	17.7	45.0
Private comprehensive	36,525	6.2	12.4	14.4	4.7	11.9	34.2
Private liberal arts	20,909	7.4	12.9	14.1	8.6	15.3	40.1
Public two-year	166,335	6.3	12.5	18.7	6.9	16.9	39.7
Other ⁴	24,454	6.4	6.9	14.2	5.8	10.1	30.0
By program area							
Agriculture/home economics	2,758	13.2	1.7	7.1	9.8	17.1	32.6
Business	34,679	5.3	9.7	14.5	4.3	13.8	33.8
Education	30,758	10.8	11.0	13.1	6.3	13.5	37.6
Engineering	11,632	14.7	8.4	10.8	3.6	20.3	43.9
Fine arts	32,814	6.2	11.8	19.5	9.0	11.9	38.4
Humanities	60,041	4.6	13.8	26.5	6.6	16.3	45.1
Natural sciences	60,243	6.3	11.5	19.3	4.9	16.5	38.8
Social sciences	33,853	5.1	16.6	23.1	9.1	14.4	43.3
Other	60,118	5.4	12.1	13.2	8.1	16.6	36.4

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

Expected Retirement Age of Part-time Instructional Faculty and Staff

Retirement from paid employment between the ages of 65–69 was anticipated by 22 percent of the part-time instructional faculty and staff in the fall of 1992 (table 30). An additional 13 percent expected to retire at age 70 with another 11 percent expecting to take such an action past age 70. Thirty-five percent of the part-time instructional faculty and staff did not know at what age they were likely to retire (table 30). This is a larger percentage than the 30 percent of full-time instructional faculty and staff who were uncertain about their retirement age (table 18).

Table 30.—Age at which part-time instructional faculty and staff in higher education institutions expect to retire from paid employment: Fall 1992

Expected retirement age	Number	Percent
All part-time instructional faculty and staff	376,675	100.0
Under 50	1,498	0.4
50–54	4,253	1.1
55–59	17,421	4.6
60–64	51,346	13.6
65–69	81,108	21.5
70	48,005	12.7
Over 70	40,221	10.7
Don't know	132,822	35.3

NOTE: Details may not add to total because of rounding.

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

When asked to specify the age at which they were most likely to stop working at a postsecondary institution, 42 percent of part-time instructional faculty and staff indicated they did not know (table 31) compared with 25 percent of full-time instructional faculty and staff (table 15). A higher percentage of part-time instructional faculty and staff (6 percent) expected to stop working at a postsecondary institution past age 70 than those employed full time (4 percent) (tables 31 and 15).

Table 31.—Age at which part-time instructional faculty and staff
in higher education institutions expect to stop
working at a postsecondary institution: Fall 1992

Expected age to stop work at a postsecondary institution	Number	Percent
All part-time instructional faculty and staff	376,675	100.0
Under 45	9,889	2.6
45–49	5,344	1.4
50–54	11,311	3.0
55–59	19,183	5.1
60–64	45,863	12.2
65–69	71,277	18.9
70	31,899	8.5
Over 70	22,655	6.0
Don't know	159,254	42.3

NOTE: Details may not add to total because of rounding.

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

Summary

This report demonstrates the level of interest of instructional faculty and staff in various mobility options: retiring, accepting a different full- or part-time job within academe, and taking a different full- or part-time job outside of postsecondary education. It primarily uses data from the 1993 National Study of Postsecondary Faculty (NSOPF-93) to provide insights into the retirement and job change plans of instructional faculty and staff in higher education institutions in the fall of 1992. Data from the 1988 National Survey of Postsecondary Faculty (NSOPF-88) provide additional information on the age distribution of full-time instructional faculty and staff in the fall of 1987.

NSOPF data indicate that in the fall of 1992 there was interest in each of these mobility options. Seven percent of full-time and 6 percent of part-time instructional faculty and staff indicated they were very likely to retire from the labor force in the next 3 years. Fourteen percent of full-time and 29 percent of part-time instructional faculty and staff indicated that they probably would move to another postsecondary institution in the next 3 years. And, 9 percent of full-time and 22 percent of part-time instructional faculty and staff indicated it was very likely they would accept a job outside of postsecondary education in the next 3 years.

In the fall of 1992 there were 528,260 full-time and 376,675 part-time instructional faculty and staff in U.S. higher education institutions. The average age of those employed full time was 48 years old. Those employed part time in the fall of 1992 were younger than those employed full time. Only 21 percent of part-time instructional faculty and staff were age 55 or older, compared with 26 percent of those employed full time. Conversely, more part-time (15 percent) than full-time (8 percent) instructional faculty and staff were less than 35 years old. Females represented a larger proportion of those employed part time (44 percent) (table 28) than full time (33 percent) (table 3).

How likely is it that faculty will leave their current job in the 3 years following the fall of 1992?

Among those employed full time, about 1 in 5 (22 percent) appeared ready to leave their current position in postsecondary education within the next 3 years. Thirty-eight percent of part-time instructional faculty and staff reported intentions of pursuing one or more retirement or mobility options in the 3 years following the fall of 1992. More part-time than full-time instructional faculty and staff indicated it was very likely that they would accept a position at a different postsecondary institution or move to a position outside of higher education (tables 29 and 5).

What are the anticipated ages of retirement of instructional faculty and staff?

There is uncertainty among instructional faculty and staff concerning when they will retire from paid employment. Many full-time (30 percent) (table 18) and part-time (35 percent) instructional faculty and staff did not know the age at which they were likely to retire (table 30). More than one-half (57 percent), however, of those employed full time indicated they expected to retire between the ages of 60 and 70. Ages 65 to 69 (27 percent) and 60 to 64 (13 percent) were the expected ages of retirement most often mentioned by full-time instructional faculty and staff. About 10 percent indicated that their retirement would occur sometime after age 70. Forty-eight percent of those employed part time indicated they expected to retire between the ages of 60 and 70. Eleven percent indicated that their retirement would occur sometime after age 70.

What are the ages at which instructional faculty and staff plan to leave postsecondary employment?

There also is uncertainty among instructional faculty and staff concerning when they will leave postsecondary employment. One-quarter of full-time instructional faculty and staff indicated they did not know the age at which they planned to leave postsecondary employment. Thirty percent of those employed full time expected to stop working at a postsecondary institution between the ages of 65 and 69 (table 15). An additional 13 percent cited age 70 as the expected age to stop work. A larger percentage of part-time instructional faculty and staff did not know the age at which they planned to leave

postsecondary employment than those employed full time (42 percent compared with 25 percent, respectively) (tables 15 and 31). A smaller percentage of part-time instructional faculty and staff reported they expected to stop working at a postsecondary institution between the ages of 65 and 69 than those employed full time (19 percent compared with 30 percent, respectively) (tables 15 and 31). An additional 14 percent of part-time instructional faculty and staff cited age 70 or older, in the fall of 1992, as the expected age to stop work (table 31).

What factors are related to a willingness to take early retirement?

Forty percent of postsecondary institutions offered some form of early or phased retirement to full-time instructional faculty and staff in the fall of 1992 (table 20). Twenty-eight percent of full-time instructional faculty and staff indicated a willingness to take early retirement if their institution provided the option. A large percentage of those willing to take early retirement expressed dissatisfaction with some aspects of their work lives, including the time available for keeping up with their field (55 percent) and their salary (47 percent). A higher percentage of full-time instructional faculty and staff reported willingness to take an early retirement option when retirement was coupled with the option of continuing to work at their institution on a part-time basis (46 percent) (table 24) than when the option to continue working at their institution on a part-time basis was not mentioned (28 percent) (table 21).

What factors are related to the likelihood that instructional faculty and staff will retire or leave postsecondary education?

Retirement and departure plans varied for individuals in different career circumstances. Generally, more instructional faculty and staff with tenure, at full professor rank, and age 55 and older were very likely to retire in the next 3 years than were other categories of instructional faculty and staff (table 6).

Differences in retirement plans existed by gender, race/ethnicity, academic field, and type and control of institution (table 7). Whites and males may have been more likely to report the intention to retire in the next 3 years, because they were more heavily represented among instructional faculty and staff age 55 and older (table 3). Between 6 and 11 percent of full-time instructional faculty and staff in all fields stated they were very likely to retire within the next 3 years.

NSOPF-93 data indicate that views about retirement seem to evolve and retirement plans become more certain with age. The data indicate also that institutional policies such as early retirement incentives and options for part-time employment after retirement have the potential to alter retirement plans and behavior. Colleges and universities concerned about maintaining a dynamic instructional work force should monitor retirement and departure plans carefully in order to help them develop policies that promote the well being both of individuals and the institutions' academic programs. Postsecondary institutions should be aware of these complex phenomena and be prepared to meet the challenges that they present.

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 System⁹) 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 Carnegie¹⁰ 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:

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;¹¹
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;

⁹IPEDS 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 avocational 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.

¹⁰See *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.

¹¹“Other Ph.D.” institutions are included in the institutions noted as “Doctoral” in the body of the report.

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 strata¹² 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.)

¹²The “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.

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 and instructional staff were selected. Otherwise, the following oversampling sizes¹³ 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 *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.¹⁴ Of the 974 institutions in the total sample, 12 (1.2 percent) were found to be ineligible.¹⁵ 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 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

¹³The 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.

¹⁴Since 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.

¹⁵When 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.

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,¹⁶ 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 × faculty questionnaire response rate) was 73.5 percent (70.4 percent, weighted).

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 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” institutions¹⁷ (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.

¹⁶Initially, 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.

¹⁷A 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.

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 overreported (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.

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.¹⁸ 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).

¹⁸Eighty-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.

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).) 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.¹⁹ Finally, a nonresponse adjustment factor was applied to the weights to compensate for needed.

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

reporting biases and bias due to undercoverage of the faculty sampling frame. Poststratification provides 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 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 the adjustments.

Imputation of Missing Data

nonresponse rates were generally low for the institution and faculty questionnaires, since missing critical (and selected other) 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 four sections.²⁰ Imputation for item nonresponse was performed for each survey item, to make the study results more inclusive.²¹ “Don't

¹⁹After 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.

²⁰The 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).

²¹For 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.

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 gender, 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 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 8.2 percent of full-time instructional faculty and staff in the fall term of 1992 were under age 35. The standard error of that estimate is .31 (table 1A). The 95 percent confidence interval for the statistic extends from 7.7 [$8.2 - (1.96 \times .31)$] to 8.8 [$8.2 + (1.96 \times .31)$] or from 7.6 to 8.8 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,²² 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 CENVAR²³ calculate variances with the Taylor-series approximation method.

²²Shah, 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.

²³U.S. Bureau of the Census, *CENVAR IMPS Version 3.1* (Washington D.C.: U.S. Bureau of the Census), 1995.

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:

$$t = \frac{\overline{X}_S - \overline{X}_T}{\sqrt{se_S^2 + se_T^2 - 2(p)se_S^2}}$$

where \overline{X}_T and se_T are the mean and standard error for the total group, \overline{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.²⁴ This adjustment takes into account the increased likelihood, when making multiple comparisons, of finding significant pairwise 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.²⁵ 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

²⁴For 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.

²⁵A 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.

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,²⁶ and they have been created to handle the certainty stratum and to incorporate finite population correction factors for each of the 14 noncertainty strata. Two widely available software packages, WesVarPC[®],²⁷ and PC CARP,²⁸ 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.

Comparability of NSOPF-88 and NSOPF-93 Faculty Questionnaire Data

In this report, the entire sample of 1988 faculty is compared with a subset of the 1993 faculty who responded “yes” to Question 1, and then said in Question 1a that “all” or “some of your instructional duties related to credit courses or advising or supervising academic activities for credit”. These questions are almost identical to the first two questions on the NSOPF-88 faculty questionnaire. This definition of instructional faculty selects approximately 90 percent of the NSOPF-93 sample for analysis. The proportion of total faculty instructional faculty represent is consistent with that reported on the institutional questionnaire (see Table 2.3 of *Institutional Policies and Practices* [NCES 97-080]).

A look at the distribution of faculty across institution types (discussed in the introduction to this report) indicates that the selection criteria described above yield comparable faculty population estimates. A comparison of the percentage distribution of all instructional faculty and staff, full-time instructional faculty and staff and part-time instructional faculty and staff between NSOPF-88 and NSOPF-93 reveals that percentage distribution in each year is quite similar, although a larger proportion of faculty in two-year schools in 1993 is observed. In addition, data reported on NSOPF-93 are consistent with data reported on surveys conducted by the American Association of University Professors and by NCES’s Integrated Postsecondary Education Data System.

However, comparisons between NSOPF-88 and NSOPF-93 should be made cautiously. The respondents who received questionnaires in the two rounds were very different. For NSOPF-88, instructions to institutions that supplied faculty lists used for sampling asked that only the names of instructional faculty be supplied. For NSOPF-93, a listing of all faculty was requested. Thus, for NSOPF-88, each institution was allowed to make its own decision about which faculty members belonged in the sample, thereby

²⁶For a discussion of the balanced half-sample (BHS) method of variance estimation, see Wolter, Kirk M., *Introduction to Variance Estimation* (New York: Springer-Verlag), 1985, pp. 110–152.

²⁷Westat, Inc., *A User's Guide to WesVarPC[®], Version 2.0* (Rockville, Md.: Westat, Inc.), 1996.

²⁸Fuller, Wayne C., et al., *PC CARP IV*. (Ames, Iowa: Statistical Laboratory, Iowa State University), 1986.

creating a situation that does not allow researchers to precisely match the *de facto* sample definition used by institutions in NSOPF-88.

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 included only in the totals in 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.

Appendix B: Standard Error Tables

Table B1.—Standard errors for number of full-time instructional faculty and staff, average age, and age distribution, by year: Fall 1987 and fall 1992

Year	Full-time instructional faculty and staff	Average age	Age distribution							
			Under 35	35–44	45–54	55–59	60–64	65–69	70	Over 70
1992										
All institutions*	11,450.6	0.12	0.31	0.57	0.53	0.36	0.31	0.20	0.07	0.09
1987										
All institutions*	13,331.4	0.18	0.61	0.82	0.76	0.56	0.55	0.43	0.08	0.07

* All accredited, nonproprietary U.S. postsecondary institutions that grant a 2-year (A.A.) or higher degree and whose accreditation at the higher education level is recognized by the U.S. Department of Education.

NOTE: Details may not add to total because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1993 National Study of Postsecondary Faculty, "Faculty Survey" and 1988 National Survey of Postsecondary Faculty, "Faculty Survey."

Table B2.—Standard errors for number of full-time instructional faculty and staff and percentage age 55 and older, by type and control of institution and program area: Fall 1987 and Fall 1992

Type and control of institution and program area	Fall 1987		Fall 1992	
	Number	Percentage 55 and older	Number	Percentage 55 and older
All full-time instructional faculty and staff ¹	13,331.4	0.75	11,450.6	0.46
By type and control ²				
Public research	8,069.5	1.37	11,263.6	1.26
Private research	3,966.7	2.32	6,335.3	1.69
Public doctoral ³	4,176.5	2.20	4,958.3	1.30
Private doctoral ³	5,490.9	5.10	3,769.1	1.89
Public comprehensive	5,410.1	2.05	3,593.0	1.06
Private comprehensive	3,184.0	2.22	2,079.5	1.41
Private liberal arts	3,407.1	2.39	1,898.9	1.59
Public 2-year	4,424.0	1.61	4,537.5	0.92
Other ⁴	1,852.8	3.50	2,255.9	2.36
By program area				
Agriculture/ home economics	1,621.6	3.84	1,281.8	3.52
Business	2,414.4	2.50	1,677.0	1.59
Education	2,286.3	2.29	1,818.4	1.58
Engineering	2,376.0	3.24	1,782.9	2.12
Fine arts	1,997.7	1.93	2,037.5	1.79
Humanities	3,204.9	1.58	2,093.7	1.17
Natural sciences	3,918.6	1.53	3,287.5	1.02
Social sciences	3,003.3	2.32	2,134.0	1.36
Other	2,854.2	2.48	2,807.8	1.32

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See Technical Notes for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1988 National Survey of Postsecondary Faculty, 1993 National Study of Postsecondary Faculty.

Table B3.—Standard errors for age distribution of full-time instructional faculty and staff in higher education institutions, by gender and minority/nonminority status: Fall 1992

Age	Full-time instructional faculty and staff			
	Male		Female	
	Number	Percent	Number	Percent
All ages	8,585.7		4,240.7	
Under 35	1,475.0	0.38	971.6	0.49
35–44	3,513.4	0.70	2,225.8	0.84
45–54	3,696.4	0.67	1,847.7	0.71
55–59	2,211.4	0.50	832.0	0.42
60–64	1,689.2	0.42	703.4	0.37
65–69	954.2	0.25	408.0	0.23
70	339.2	0.10	151.6	0.09
Over 70	417.3	0.12	278.9	0.16
	Nonminority		Minority	
All ages	10,195.1		3,235.3	
Under 35	1,637.5	0.31	790.7	0.93
35–44	4,238.7	0.60	1,334.1	1.25
45–54	4,366.8	0.58	1,336.7	1.20
55–59	2,298.4	0.40	646.3	0.72
60–64	1,728.2	0.33	533.0	0.63
65–69	1,037.2	0.22	268.6	0.36
70	365.1	0.08	60.7	0.08
Over 70	483.4	0.11	146.1	0.20

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

Table B4.—Standard errors for number of full-time instructional faculty and staff in higher education institutions, and percentage age 55 and older, by academic rank and tenure status: Fall 1992

Rank and tenure status	Full-time instructional faculty and staff	
	Total number	Percentage age 55 and older
All full-time instructional faculty and staff	11,450.6	0.46
Academic rank		
Full professor	5,351.4	0.97
Associate professor	4,006.8	0.87
Assistant professor	3,779.3	0.62
Instructor	3,122.4	0.93
Lecturer	1,436.6	2.40
Other	1,419.2	2.35
Not applicable	1,612.6	2.16
Tenure status		
Tenured	7,617.0	0.69
On tenure track but not tenured	3,503.5	0.48
Not on tenure track	2,922.7	1.01
No tenure system for faculty status	1,459.3	2.01
No tenure system at institution	3,739.1	1.66

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 higher education institutions with various plans for the next 3 years: Fall 1992

<u>Plans</u>	<u>Percent</u>
Retire from the labor force	0.27
Accept a part-time job at a different post-secondary institution	0.18
Accept a full-time job at a different post-secondary institution	0.38
Accept a part-time job outside of post-secondary education	0.17
Accept a full-time job outside of post-secondary education	0.26
<u>Do one or more of the preceding</u>	<u>0.47</u>

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

Table B6.—Standard errors for number of full-time instructional faculty and staff in higher education institutions, and percentage who reported that they were "very likely" to retire in the next 3 years, by current age, rank, and tenure status: Fall 1992

Age, rank, and tenure status	Number	Percentage "very likely" to retire
All full-time instructional faculty and staff	11,450.6	0.27
By current age		
Under 35	1,952.7	0.17
35–44	4,821.4	0.17
45–54	4,658.2	0.22
55–59	2,434.6	0.87
60–64	1,849.8	1.80
65–69	1,092.0	3.01
70	369.1	10.58
Over 70	502.1	5.61
By academic rank		
Full professor	5,351.4	0.63
Associate professor	4,006.8	0.48
Assistant professor	3,779.3	0.29
Instructor	3,122.4	0.58
Lecturer	1,436.6	2.02
Other	1,419.2	0.78
Not applicable	1,612.6	1.39
By tenure status		
Tenured	7,617.0	0.44
On tenure track but not tenured	3,503.5	0.25
Not on tenure track	2,922.7	0.47
No tenure system for faculty status	1,459.3	1.26
No tenure system at institution	3,739.1	0.74

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

Table B7.—Standard errors for number of full-time instructional faculty and staff, and percentage who reported that they were "very likely" to retire in the next 3 years, by type and control of institution, program area, gender, and race/ethnicity: Fall 1992

Type and control of institution, program area, gender, and race/ethnicity	Number	Percentage "very likely" to retire
All full-time instructional faculty and staff ¹	11,450.6	0.27
Type and control ²		
Public research	11,263.6	0.69
Private research	6,335.3	0.94
Public doctoral ³	4,958.3	0.95
Private doctoral ³	3,769.1	0.66
Public comprehensive	3,593.0	0.56
Private comprehensive	2,079.5	0.76
Private liberal arts	1,898.9	0.88
Public 2-year	4,537.5	0.55
Other ⁴	2,255.9	1.31
Program area		
Agriculture/home economics	1,281.8	1.98
Business	1,677.0	1.01
Education	1,818.4	1.09
Engineering	1,782.9	1.30
Fine arts	2,037.5	1.14
Humanities	2,093.7	0.65
Natural sciences	3,287.5	0.56
Social sciences	2,134.0	0.82
Other	2,807.8	0.74
Gender		
Male	8,585.7	0.36
Female	4,240.7	0.34
Race/ethnicity		
American Indian/Alaskan Native	325.0	4.94
Asian or Pacific Islander	1,530.1	0.68
Black, non-Hispanic	2,178.8	0.92
Hispanic	1,040.6	1.26
White, non-Hispanic	10,195.1	0.30

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for more details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table B8.—Standard errors for percentage distribution of full-time instructional faculty and staff in higher education institutions "very likely" to retire in the next 3 years, by level of satisfaction with selected work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
Number very likely to retire	1,466.3		
Workload		1.54	1.54
Job security		0.97	0.97
Salary		1.93	1.93
Time available for keeping current in my field		1.94	1.94
Opportunity for advancement in rank at this institution		1.70	1.70
Freedom to do outside consulting		1.32	1.32
Benefits, generally		1.40	1.40
Spouse or partner employment opportunities in geographic area		1.35	1.35
Job here, overall		1.35	1.35

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

Table B9.—Standard errors for percentage distribution of full-time instructional faculty and staff in higher education institutions, by level of satisfaction with selected work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
All full-time instructional faculty and staff	11,450.6		
Workload		0.51	0.51
Job security		0.47	0.47
Salary		0.78	0.78
Time available for keeping current in my field		0.59	0.59
Opportunity for advancement in rank at this institution		0.56	0.56
Freedom to do outside consulting		0.47	0.47
Benefits, generally		0.73	0.73
Spouse or partner employment opportunities in geographic area		0.51	0.51
Job here, overall		0.42	0.42

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 higher education institutions age 55 and older, by level of satisfaction with selected work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
All full-time instructional faculty and staff, age 55 and older	3,762.3		
Workload		0.95	0.95
Job security		0.63	0.63
Salary		1.17	1.17
Time available for keeping current in my field		1.05	1.05
Opportunity for advancement in rank at this institution		0.94	0.94
Freedom to do outside consulting		0.73	0.73
Benefits, generally		0.99	0.99
Spouse or partner employment opportunities in geographic area		0.84	0.84
Job here, overall		0.72	0.72

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

Table B11.—Standard errors for percentage distribution of full-time instructional faculty and staff in higher education institutions age 55 and older who reported that they were "very likely" to retire in the next 3 years, by level of satisfaction with selected work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
All full-time instructional faculty and staff, age 55 and older, very likely to retire	1,350.6		
Workload		1.63	1.63
Job security		0.91	0.91
Salary		2.09	2.09
Time available for keeping current in my field		2.08	2.08
Opportunity for advancement in rank at this institution		1.85	1.85
Freedom to do outside consulting		1.40	1.40
Benefits, generally		1.56	1.56
Spouse or partner employment opportunities in geographic area		1.50	1.50
Job here, overall		1.45	1.45

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

Table B12.—Standard errors for number of full-time instructional faculty and staff in higher education institutions, and percentage who reported that they were "very likely" to leave their current job to accept a different full-time nonpostsecondary job during the next 3 years, by current age, gender, race/ethnicity, academic rank, and tenure status: Fall 1992

Age, gender, race/ethnicity, rank, and tenure status	Number	Percentage "very likely" to leave
All full-time instructional faculty and staff	11,450.6	0.26
Current age		
Under 35	1,952.7	1.15
35–44	4,821.4	0.63
45–54	4,658.2	0.36
55–59	2,434.6	0.55
60–64	1,849.8	0.54
65–69	1,092.0	1.03
70	369.1	0.00
Over 70	502.1	2.40
Gender		
Male	8,585.7	0.28
Female	4,240.7	0.48
Race/ethnicity		
American Indian/Alaskan Native	325.0	3.55
Asian or Pacific Islander	1,530.1	1.53
Black, non-Hispanic	2,178.8	1.08
Hispanic	1,040.6	1.59
White, non-Hispanic	10,195.1	0.27
Academic rank		
Full professor	5,351.4	0.28
Associate professor	4,006.8	0.44
Assistant professor	3,779.3	0.59
Instructor	3,122.4	0.74
Lecturer	1,436.6	3.57
Other	1,419.2	2.38
Not applicable	1,612.6	0.76
Tenure status		
Tenured	7,617.0	0.24
On tenure track but not tenured	3,503.5	0.63
Not on tenure track	2,922.7	1.09
No tenure system for faculty status	1,459.3	1.40
No tenure system at institution	3,739.1	0.86

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

Table B13.—Standard errors for number of full-time instructional faculty and staff, and percentage who reported that they were "very likely" to leave their current job and accept a different full-time job not in postsecondary education during the next 3 years, by type and control of institution, and program area: Fall 1992

Type and control of institution and program area	Number	Percentage "very likely" to leave
All full-time instructional faculty and staff ¹	11,450.6	0.26
Type and control ²		
Public research	11,263.6	0.63
Private research	6,335.3	2.02
Public doctoral ³	4,958.3	0.63
Private doctoral ³	3,769.1	0.83
Public comprehensive	3,593.0	0.46
Private comprehensive	2,079.5	0.72
Private liberal arts	1,898.9	1.07
Public 2-year	4,537.5	0.49
Other ⁴	2,255.9	1.21
Program area		
Agriculture/home economics	1,281.8	1.49
Business	1,677.0	0.80
Education	1,818.4	0.99
Engineering	1,782.9	1.02
Fine arts	2,037.5	0.95
Humanities	2,093.7	0.40
Natural sciences	3,287.5	0.50
Social sciences	2,134.0	0.69
Other	2,807.8	0.82

¹Data for health sciences faculty are included in the total, but are not shown separately by program area.

See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table B14.—Standard errors for job satisfaction ratings of full-time instructional faculty and staff in higher education institutions who reported that they were "not at all likely," "somewhat likely," and "very likely" to leave their current job to accept a different full-time job in the next 3 years: Fall 1992

Job satisfaction dimension	<u>All full-time faculty</u>		<u>Not at all likely</u>		<u>Somewhat likely</u>		<u>Very likely</u>	
	Satisfied	Dissatisfied	Satisfied	Dissatisfied	Satisfied	Dissatisfied	Satisfied	Dissatisfied
Overall job satisfaction	0.42	0.42	0.42	0.42	1.05	1.05	2.10	2.10
Workload	0.51	0.51	0.57	0.57	1.20	1.20	2.11	2.11
Job security	0.47	0.47	0.43	0.43	1.26	1.26	2.18	2.18
Advancement opportunities	0.56	0.56	0.58	0.58	1.19	1.19	2.09	2.09
Time available for keeping current in field	0.59	0.59	0.64	0.64	1.39	1.39	2.12	2.12
Freedom to do outside consulting	0.47	0.47	0.49	0.49	1.15	1.15	2.58	2.58
Salary	0.78	0.78	0.86	0.86	1.27	1.27	2.66	2.66
Benefits	0.73	0.73	0.75	0.75	1.36	1.36	2.13	2.13
Employment opportunities for spouse or partner	0.51	0.51	0.55	0.55	1.19	1.19	2.05	2.05

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

Table B15.—Standard errors for age at which full-time instructional faculty and staff in higher education institutions are most likely to stop working at a postsecondary institution, by current age, gender, and race/ethnicity: Fall 1992

Age, gender, and race/ethnicity	Number	Percentage expecting to stop work at age:							
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	Don't know
All full-time instructional faculty and staff	11,450.6	0.14	0.13	0.28	0.42	0.50	0.42	0.22	0.47
By current age									
Under 35	1,952.7	0.89	0.68	0.69	1.22	1.52	1.05	0.48	1.87
35–44	4,821.4	0.33	0.29	0.55	0.62	0.87	0.63	0.32	0.90
45–54	4,658.2	0.17	0.22	0.49	0.69	0.79	0.66	0.36	0.69
55–59	2,434.6			0.71	1.19	1.36	1.01	0.47	1.15
60–64	1,849.8				1.50	1.84	1.42	0.70	1.31
65–69	1,092.0					2.83	2.61	2.19	1.96
70	369.1						10.28	8.76	9.09
Over 70	502.1							5.27	5.27
By gender									
Male	8,585.7	0.15	0.14	0.33	0.52	0.63	0.53	0.30	0.55
Female	4,240.7	0.29	0.26	0.44	0.67	0.65	0.47	0.30	0.72
By race/ethnicity									
American Indian or Alaskan Native	325.0	2.10	—	3.33	5.79	6.08	3.48	1.60	5.39
Asian or Pacific Islander	1,530.1	0.49	0.64	0.68	1.66	2.12	1.32	1.07	2.20
Black, non-Hispanic	2,178.8	1.10	0.72	1.00	1.24	1.73	1.07	0.58	1.87
Hispanic	1,040.6	0.60	1.05	1.06	1.79	2.78	2.39	1.00	2.58
White, non-Hispanic	10,195.1	0.14	0.14	0.30	0.47	0.58	0.44	0.24	0.51

—Not enough cases for a reliable estimate.

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

Table B16.—Standard errors for age at which full-time instructional faculty and staff are most likely to stop working at a postsecondary institution, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Number	Percentage expecting to stop work at age:							
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	Don't know
All full-time instructional faculty and staff ¹	11,450.6	0.14	0.13	0.28	0.42	0.50	0.42	0.22	0.47
By type and control ²									
Public research	11,263.6	0.39	0.28	0.74	0.96	1.32	1.32	0.59	1.22
Private research	6,335.3	0.47	0.54	0.48	1.88	3.06	2.40	1.66	2.52
Public doctoral ³	4,958.3	0.30	0.28	0.67	1.12	1.26	1.18	0.56	1.29
Private doctoral ³	3,769.1	0.64	0.55	0.89	1.27	1.97	1.78	1.13	2.88
Public comprehensive	3,593.0	0.20	0.23	0.53	0.95	1.07	0.70	0.37	0.98
Private comprehensive	2,079.5	0.37	0.33	0.59	1.31	1.68	1.11	0.72	1.52
Private liberal arts	1,898.9	0.57	0.44	0.58	1.04	1.32	1.42	0.75	1.68
Public 2-year	4,537.5	0.31	0.42	0.74	0.98	0.87	0.53	0.36	0.74
Other ⁴	2,255.9	0.61	0.41	1.24	1.99	2.63	1.50	0.79	1.84
By program area									
Agriculture/home economics	1,281.8	0.48	0.53	2.00	2.74	3.34	2.17	1.57	3.71
Business	1,677.0	0.50	0.49	1.00	1.47	1.67	1.33	0.59	1.31
Education	1,818.4	0.26	0.53	1.21	1.40	1.49	1.13	0.43	1.57
Engineering	1,782.9	0.54	0.41	1.30	2.08	2.21	2.22	1.30	2.12
Fine arts	2,037.5	0.37	0.69	0.88	1.43	1.98	1.04	0.77	1.70
Humanities	2,093.7	0.19	0.30	0.49	0.81	1.06	0.81	0.51	1.05
Natural sciences	3,287.5	0.19	0.26	0.46	0.78	1.36	0.95	0.53	1.02
Social sciences	2,134.0	0.23	0.31	0.82	1.12	1.53	1.26	0.57	1.28
Other	2,807.8	0.47	0.37	0.78	1.28	1.23	0.87	0.72	1.49

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table B17.—Standard errors for age at which full-time instructional faculty and staff in higher education institutions are most likely to stop working at a postsecondary institution, by academic rank and tenure status: Fall 1992

Rank and tenure status	Number	Percentage expecting to stop work at age:							Don't know
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	
All full-time instructional faculty and staff	11,450.6	0.14	0.13	0.28	0.42	0.50	0.42	0.22	0.47
By academic rank									
Full professor	5,351.4	0.13	0.18	0.43	0.73	0.90	0.84	0.47	0.78
Associate professor	4,006.8	0.13	0.24	0.58	0.80	0.97	0.83	0.39	0.89
Assistant professor	3,779.3	0.41	0.24	0.45	0.71	0.93	0.67	0.38	0.85
Instructor	3,122.4	0.52	0.48	0.69	1.12	1.03	0.61	0.61	1.27
Lecturer	1,436.6	1.48	1.04	1.48	3.52	2.49	2.80	0.80	3.73
Other	1,419.2	1.01	1.10	1.95	1.82	2.53	1.84	1.20	3.10
Not applicable	1,612.6	0.44	0.50	1.49	2.28	2.42	1.61	0.20	2.36
By tenure status									
Tenured	7,617.0	0.09	0.17	0.39	0.58	0.67	0.63	0.32	0.59
On tenure track but not tenured	3,503.5	0.36	0.26	0.43	0.74	1.00	0.74	0.39	0.98
Not on tenure track	2,922.7	0.68	0.47	0.72	1.16	1.32	0.96	0.61	1.55
No tenure system for faculty status	1,459.3	0.87	0.72	1.04	1.53	2.23	1.09	1.11	2.38
No tenure system at institution	3,739.1	0.44	0.55	1.00	1.55	1.62	0.90	0.73	1.42

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

Table B18.—Standard errors for age at which full-time instructional faculty and staff in higher education institutions expect to retire from paid employment, by current age, gender, and race/ethnicity: Fall 1992

Age, gender, and race/ethnicity	Number	Percentage expecting to retire at age:							
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	Don't know
All full-time instructional faculty and staff	11,450.6	0.04	0.07	0.20	0.34	0.52	0.42	0.36	0.49
By current age									
Under 35	1,952.7	0.36	0.42	0.69	1.28	1.70	1.20	0.69	1.71
35–44	4,821.4	0.07	0.18	0.46	0.61	0.92	0.70	0.50	0.87
45–54	4,658.2	0.00	0.08	0.34	0.52	0.77	0.64	0.58	0.78
55–59	2,434.6			0.37	1.06	1.35	1.09	0.82	1.28
60–64	1,849.8				1.17	1.74	1.34	1.08	1.48
65–69	1,092.0					2.43	2.51	2.42	2.65
70	369.1						9.86	9.81	9.42
Over 70	502.1							5.14	5.14
By gender									
Male	8,585.7	0.04	0.07	0.24	0.40	0.69	0.54	0.48	0.62
Female	4,240.7	0.08	0.15	0.34	0.68	0.70	0.55	0.43	0.73
By race/ethnicity									
American Indian or Alaskan Native	325.0	—	—	1.65	4.30	5.75	5.43	4.15	5.71
Asian or Pacific Islander	1,530.1	—	0.38	0.69	1.44	2.14	1.58	1.27	1.84
Black, non-Hispanic	2,178.8	0.43	0.51	0.76	1.27	1.85	1.24	1.05	1.84
Hispanic	1,040.6	—	0.24	1.05	1.50	2.03	2.19	2.28	2.44
White, non-Hispanic	10,195.1	0.03	0.07	0.22	0.38	0.58	0.46	0.38	0.53

—Not enough cases for a reliable estimate.

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

Table B19.—Standard errors for age at which full-time instructional faculty and staff expect to retire from paid employment, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Number	Percentage expecting to retire at age:							
		Under 50	50–54	55–59	60–64	65–69	70	Over 70	Don't know
All full-time instructional faculty and staff ¹	11,450.6	0.04	0.07	0.20	0.34	0.52	0.42	0.36	0.49
By type and control ²									
Public research	11,263.6	—	0.13	0.60	0.81	1.36	1.11	1.02	1.50
Private research	6,335.3	—	—	0.38	1.80	3.80	2.64	1.97	2.03
Public doctoral ³	4,958.3	—	0.17	0.54	1.02	1.49	1.37	0.80	1.38
Private doctoral ³	3,769.1	—	—	0.71	1.18	2.32	2.03	2.82	2.66
Public comprehensive	3,593.0	0.07	0.17	0.40	0.73	0.95	0.74	0.59	1.08
Private comprehensive	2,079.5	—	0.23	0.42	0.90	1.32	1.39	0.97	1.37
Private liberal arts	1,898.9	—	0.26	0.52	0.95	1.82	1.55	0.97	1.43
Public 2-year	4,537.5	0.11	0.20	0.50	0.81	0.83	0.61	0.54	0.80
Other ⁴	2,255.9	—	0.30	0.57	1.34	2.57	1.77	1.51	1.85
By program area									
Agriculture/home economics	1,281.8	0.00	—	1.50	2.59	3.28	2.78	2.25	3.72
Business	1,677.0	—	0.28	0.67	1.32	1.40	1.32	1.14	1.54
Education	1,818.4	—	0.27	0.79	1.21	1.54	1.26	0.78	1.78
Engineering	1,782.9	0.00	0.25	0.55	1.56	2.28	2.23	1.60	2.50
Fine arts	2,037.5	0.00	0.10	0.71	1.17	1.65	1.21	1.38	1.87
Humanities	2,093.7	—	0.21	0.35	0.71	1.05	0.82	0.73	1.06
Natural sciences	3,287.5	—	0.11	0.33	0.65	1.23	1.00	0.59	1.09
Social sciences	2,134.0	—	0.21	0.73	0.95	1.37	1.25	0.88	1.38
Other	2,807.8	0.11	0.21	0.51	1.02	1.30	1.00	1.12	1.24

—Not enough cases for a reliable estimate.

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table B20.—Standard errors for percentage of higher education institutions that offered early or phased retirement to any full-time instructional faculty and staff during the past 5 years and number of retirees during that period, by type and control of institution: Fall 1992

Type and control of institution	Percentage of institutions	Number of retirees
All institutions ¹	2.13	1,829.2
By type and control		
Public research	5.40	161.7
Private research	8.82	51.5
Public doctoral ²	5.38	85.6
Private doctoral ²	9.11	54.2
Public comprehensive	4.82	411.9
Private comprehensive	7.07	181.6
Private liberal arts	6.29	361.3
Public 2-year	3.69	1,086.1
Other ³	4.21	1,352.7

¹All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

²Includes institutions classified by the Carnegie Foundation as specialized medical schools.

³Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table B21.—Standard errors for number of full-time instructional faculty and staff in higher education institutions, and percentage willing to take an early retirement option from their institution if offered, by current age, gender and race/ethnicity: Fall 1992

Age, gender, and race/ethnicity	Number	Percentage responding		
		Yes	No	Don't know
All full-time instructional faculty and staff	11,450.6	0.50	0.59	0.52
By current age				
Under 35	1,952.7	1.34	1.78	1.78
35–44	4,821.4	0.83	0.92	0.94
45–54	4,658.2	0.79	0.85	0.77
55–59	2,434.6	1.37	1.41	1.44
60–64	1,849.8	1.55	1.74	1.54
65–69	1,092.0	2.69	3.05	2.06
70	369.1	8.30	10.28	8.66
Over 70	502.1	4.55	5.63	3.90
By gender				
Male	8,585.7	0.61	0.74	0.66
Female	4,240.7	0.74	0.78	0.76
By race/ethnicity				
American Indian or Alaskan Native	325.0	6.49	6.13	5.07
Asian or Pacific Islander	1,530.1	1.88	2.16	2.01
Black, non-Hispanic	2,178.8	1.89	1.65	1.52
Hispanic	1,040.6	2.28	2.50	2.50
White, non-Hispanic	10,195.1	0.53	0.64	0.56

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

Table B22.—Standard errors for number of full-time instructional faculty and staff, and percentage willing to take an early retirement option from their institution if offered, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Number	Percentage responding		
		Yes	No	Don't know
All full-time instructional faculty and staff ¹	11,450.6	0.50	0.59	0.52
By type and control ²				
Public research	11,263.6	1.17	1.79	1.65
Private research	6,335.3	3.06	2.90	2.13
Public doctoral ³	4,958.3	1.24	1.51	1.29
Private doctoral ³	3,769.1	1.29	2.32	2.47
Public comprehensive	3,593.0	1.14	1.12	1.06
Private comprehensive	2,079.5	1.48	1.33	1.53
Private liberal arts	1,898.9	1.51	1.64	1.59
Public 2-year	4,537.5	0.92	0.96	0.84
Other ⁴	2,255.9	1.98	1.84	2.14
By program area				
Agriculture/home economics	1,281.8	3.88	4.61	3.99
Business	1,677.0	1.71	1.77	1.61
Education	1,818.4	1.75	1.79	1.85
Engineering	1,782.9	2.18	2.59	2.35
Fine arts	2,037.5	1.73	1.81	1.83
Humanities	2,093.7	0.95	1.07	1.06
Natural sciences	3,287.5	1.00	1.28	1.13
Social sciences	2,134.0	1.38	1.55	1.45
Other	2,807.8	1.39	1.53	1.31

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Note* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table B23.—Standard errors for percentage distribution of full-time instructional faculty and staff in higher education institutions, willing to take an early retirement option if offered by their institution, by level of satisfaction with work environment variables: Fall 1992

Work environment variables	Number	Percentage very or somewhat dissatisfied	Percentage very or somewhat satisfied
Number willing to take an early retirement option	3,759.9		
Workload		0.97	0.97
Job security		0.84	0.84
Salary		1.12	1.12
Time available for keeping current in my field		0.87	0.87
Opportunity for advancement in rank at this institution		0.93	0.93
Freedom to do outside consulting		0.82	0.82
Benefits, generally		0.99	0.99
Spouse or partner employment opportunities in geographic area		0.81	0.81
Job here, overall		0.78	0.78

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

Table B24.—Standard errors for number of full-time instructional faculty and staff in higher education institutions, and percentage who would elect, if given the opportunity, to draw on retirement income and continue working at their institution on a part-time basis, by current age, gender, and race/ethnicity: Fall 1992

Age, gender, and race/ethnicity	Number	Percentage responding		
		Yes	No	Don't know
All full-time instructional faculty and staff	11,450.6	0.54	0.50	0.46
By current age				
Under 35	1,952.7	1.71	1.60	1.74
35–44	4,821.4	0.89	0.93	0.81
45–54	4,658.2	0.78	0.72	0.72
55–59	2,434.6	1.49	1.30	1.39
60–64	1,849.8	1.83	1.64	1.35
65–69	1,092.0	2.76	2.23	2.26
70	369.1	8.79	5.65	7.40
Over 70	502.1	5.48	4.66	3.18
By gender				
Male	8,585.7	0.67	0.62	0.56
Female	4,240.7	0.79	0.77	0.68
By race/ethnicity				
American Indian or Alaskan Native	325.0	6.36	5.71	5.15
Asian or Pacific Islander	1,530.1	2.05	2.11	1.75
Black, non-Hispanic	2,178.8	2.37	1.84	1.57
Hispanic	1,040.6	2.89	2.23	2.68
White, non-Hispanic	10,195.1	0.58	0.54	0.49

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

Table B25.—Standard errors for number of full-time instructional faculty and staff and percentage who would elect, if given the opportunity, to draw on retirement income and continue working at their institution on a part-time basis, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Number	Percentage responding		
		Yes	No	Don't know
All full-time instructional faculty and staff ¹	11,450.6	0.54	0.50	0.46
By type and control ²				
Public research	11,263.6	1.42	1.17	1.43
Private research	6,335.3	3.25	3.69	1.63
Public doctoral ³	4,958.3	1.33	1.24	1.22
Private doctoral ³	3,769.1	2.31	2.44	2.13
Public comprehensive	3,593.0	1.02	0.95	0.79
Private comprehensive	2,079.5	1.82	1.38	1.58
Private liberal arts	1,898.9	1.93	1.54	1.67
Public 2-year	4,537.5	0.94	0.87	0.75
Other ⁴	2,255.9	1.78	1.70	1.69
By program area				
Agriculture/ home economics	1,281.8	3.82	2.74	4.02
Business	1,677.0	1.76	1.49	1.41
Education	1,818.4	1.77	1.44	1.44
Engineering	1,782.9	2.31	2.41	1.83
Fine arts	2,037.5	1.92	1.79	1.77
Humanities	2,093.7	1.14	1.01	1.03
Natural sciences	3,287.5	1.14	1.08	1.05
Social sciences	2,134.0	1.71	1.65	1.44
Other	2,807.8	1.54	1.38	1.20

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table B26.—Standard errors for age distribution of part-time instructional faculty and staff in higher education institutions: Fall 1992

Age	Part-time instructional faculty and staff	
	Number	Percent
All part-time instructional faculty and staff	13,868.8	
Under 35	3,260.1	0.65
35–44	5,486.5	0.83
45–54	4,938.5	0.66
55–59	1,943.9	0.43
60–64	1,742.9	0.41
65–69	1,487.8	0.36
70	788.1	0.21
Over 70	965.0	0.25

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

Table B27.—Standard errors for number of part-time instructional faculty and staff and percentage age 55 and older, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Part-time instructional faculty and staff	
	Number	Percentage 55 and older
All part-time instructional faculty and staff ¹	13,868.8	0.76
By type and control ²		
Public research	3,796.4	3.65
Private research	5,688.5	6.06
Public doctoral ³	3,444.1	3.18
Private doctoral ³	3,346.2	3.21
Public comprehensive	4,708.3	1.87
Private comprehensive	4,137.9	2.00
Private liberal arts	2,836.6	2.25
Public 2-year	9,235.6	1.04
Other ⁴	2,726.6	3.24
By program area		
Agriculture/home economics	553.3	7.30
Business	2,517.8	2.10
Education	2,286.2	2.52
Engineering	1,500.4	4.57
Fine arts	2,187.6	2.34
Humanities	2,629.3	1.40
Natural sciences	4,254.1	2.00
Social sciences	2,280.6	1.90
Other	3,546.4	1.44

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

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

Table B28.—Standard errors for age distribution of part-time instructional faculty and staff in higher education institutions, by gender and minority/nonminority status: Fall 1992

Age	Part-time instructional faculty and staff			
	Male		Female	
	Number	Percent	Number	Percent
All ages	8,957.3		6,243.6	
Under 35	1,989.6	0.77	1,956.6	0.93
35–44	3,649.8	1.05	2,859.1	1.14
45–54	3,478.3	1.05	2,585.2	1.01
55–59	1,523.4	0.62	992.0	0.56
60–64	1,368.6	0.61	1,036.5	0.58
65–69	1,163.6	0.50	682.6	0.39
70	760.6	0.36	189.7	0.11
Over 70	798.4	0.37	514.4	0.30
	Nonminority		Minority	
All ages	12,780.8		2,624.8	
Under 35	3,027.0	0.70	769.9	1.59
35–44	5,047.1	0.89	1,269.8	1.80
45–54	4,571.4	0.70	1,221.2	1.83
55–59	1,900.0	0.47	383.6	0.86
60–64	1,635.3	0.43	370.1	0.82
65–69	1,447.0	0.40	314.7	0.67
70	785.6	0.23	69.9	0.16
Over 70	934.6	0.27	207.8	0.46

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

Table B29.—Standard errors for percentage of part-time instructional faculty and staff with various plans for the next 3 years, by type and control of institution and program area: Fall 1992

Type and control of institution and program area	Number	In the next 3 years very likely to:					Do one or more of the preceding
		Retire from the labor force	Accept a part-time job at a different postsecondary institution	Accept a full-time job at a different postsecondary institution	Accept a part-time job not at a postsecondary institution	Accept a full-time job not at a postsecondary institution	
	Percent	Percent	Percent	Percent	Percent	Percent	
All part-time instructional faculty and staff ¹	13,868.8	0.39	0.53	0.69	0.44	0.62	0.86
By type and control ²							
Public research	3,796.4	1.95	2.31	2.55	2.35	2.41	3.65
Private research	5,688.5	2.72	2.49	5.15	1.85	2.61	6.10
Public doctoral ³	3,444.1	1.81	2.26	2.69	2.16	2.68	3.96
Private doctoral ³	3,346.2	1.22	2.56	3.10	1.57	2.48	4.38
Public comprehensive	4,708.3	1.02	1.31	1.39	1.17	2.14	2.47
Private comprehensive	4,137.9	0.89	1.43	1.53	0.99	1.36	2.06
Private liberal arts	2,836.6	1.49	1.70	2.28	0.99	2.67	2.83
Public 2-year	9,235.6	0.57	0.85	1.11	0.68	0.89	1.07
Other ⁴	2,726.6	1.47	1.69	1.84	1.33	1.48	2.36
By program area							
Agriculture/home economics	553.3	6.54	1.73	3.96	5.77	6.25	8.71
Business	2,517.9	1.15	1.34	1.59	1.00	2.05	2.60
Education	2,286.2	1.63	1.50	1.72	1.23	1.83	2.67
Engineering	1,500.4	3.54	2.64	2.81	1.46	3.79	4.62
Fine arts	2,187.6	1.35	1.57	2.04	1.49	1.56	2.76
Humanities	2,629.3	0.58	1.20	1.63	0.82	1.21	1.74
Natural sciences	4,254.1	0.97	1.41	1.73	0.79	1.41	1.74
Social sciences	2,280.6	1.02	2.21	2.22	1.49	1.89	2.68
Other	3,546.4	0.85	1.23	1.41	1.28	1.59	2.04

¹Data for health sciences faculty are included in the total, but are not shown separately by program area. See *Technical Notes* for details.

²All accredited, nonproprietary U.S. postsecondary institutions that grant 2-year (A.A.) or higher degree and whose accreditation at the higher level is recognized by the U.S. Department of Education.

³Includes institutions classified by the Carnegie Foundation as specialized medical schools.

⁴Public liberal arts, private 2-year, religious, and other specialized institutions, except medical.

Table B30.—Standard errors for age at which part-time instructional faculty and staff in higher education institutions expect to retire from paid employment: Fall 1992

<u>Expected retirement age</u>	<u>Number</u>	<u>Percent</u>
All part-time instructional faculty and staff	13,868.8	
Under 50	326.6	0.09
50–54	522.7	0.14
55–59	1,332.1	0.33
60–64	2,630.4	0.57
65–69	4,080.5	0.73
70	3,405.5	0.69
Over 70	2,600.7	0.53
Don't know	5,624.1	0.80

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

Table B31.—Standard errors for age at which part-time instructional faculty and staff in higher education institutions expect to stop working at a postsecondary institution: Fall 1992

Expected age to stop work at a postsecondary institution	Number	Percent
All part-time instructional faculty and staff	13,868.8	
Under 45	1,143.6	0.28
45–49	756.5	0.19
50–54	1,182.5	0.30
55–59	1,367.3	0.35
60–64	2,411.7	0.49
65–69	4,421.0	0.87
70	2,022.1	0.43
Over 70	1,723.5	0.39
Don't know	6,466.7	0.83

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

Appendix C: The Survey Questionnaires

**U.S. Department of Education
Office of Educational Research and Improvement**

National Center for Education Statistics

1993 NATIONAL STUDY OF POSTSECONDARY FACULTY

***FACULTY
QUESTIONNAIRE***



All information on this form will be kept confidential and will not be disclosed or released to your institution or any other group or individual.

Co-sponsored by: National Science Foundation
National Endowment for the Humanities

Contractor: National Opinion Research Center (NORC)
University of Chicago
Mailing Address:
1525 East 55th Street
Chicago, Illinois 60615
Toll-Free Number: 1-800-733-NORC

NATIONAL STUDY OF POSTSECONDARY FACULTY

Instructions for Completing Faculty Questionnaire

Many of our questions ask about your activities during the 1992 Fall Term. By this, we mean whatever academic term was in progress on October 15, 1992.

*All questions that ask about your position at "this institution" refer to your position during the 1992 Fall Term **at the institution listed on the label on the back cover of the questionnaire.***

This questionnaire was designed to be completed by both full-time and part-time instructional faculty and staff, and non-instructional faculty, in 2- and 4-year (and above) higher education institutions of all types and sizes. Please read each question carefully and follow all instructions. Some of the questions may not appear to fit your situation precisely; if you have a response other than those listed for a particular question, write in that response.

Most questions ask you to circle a number to indicate your response. Circle the number in front of your response and not the response itself. Other questions ask you to fill in information; write in the information in the space provided.

Mailing instructions for returning the completed questionnaire are on page 26.

If you have any questions on how to proceed, please call NORC toll-free at 1-800-733-NORC.

9. Which of the following best describes your academic rank, title, or position at this institution during the 1992 Fall Term? (CIRCLE ONE NUMBER, OR "NA")

NA. Not applicable: no ranks designated at this institution **(SKIP TO QUESTION 11)**

1. Professor
2. Associate Professor
3. Assistant Professor
4. Instructor
5. Lecturer
6. Other (*WRITE IN*) _____

10. In what year did you first achieve this rank?
(*WRITE IN YEAR*)

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11. During the 1992 Fall Term, which of the following kinds of appointments did you hold at this institution?
(*CIRCLE ALL THAT APPLY*)

1. Acting
2. Affiliate or adjunct
3. Visiting
4. Assigned by religious order
5. Clinical
(*WRITE IN TITLE OR POSITION*) _____
6. Research
(*WRITE IN TITLE OR POSITION*) _____
7. None of the above

12. What is your principal field or discipline of teaching? (REFER TO THE LIST OF MAJOR FIELDS OF STUDY ON PAGES 5 AND 6 AND ENTER THE APPROPRIATE CODE NUMBER AND NAME BELOW. IF YOU HAVE NO FIELD OF TEACHING, CIRCLE "NA")

NA. Not Applicable

CODE FOR FIELD _____
OR DISCIPLINE: _____ NAME OF PRINCIPAL FIELD/DISCIPLINE

13. What is your principal area of research? If equal areas, select one. (IF YOU HAVE NO RESEARCH AREA, CIRCLE "NA")

NA. Not Applicable

CODE FOR FIELD _____
OR DISCIPLINE: _____ NAME OF PRINCIPAL FIELD/DISCIPLINE

CODES FOR MAJOR FIELDS OF STUDY AND ACADEMIC DISCIPLINES

AGRICULTURE

- 101 Agribusiness & Agricultural Production
- 102 Agricultural, Animal, Food, & Plant Sciences
- 103 Renewable Natural Resources, including Conservation, Fishing, & Forestry
- 110 Other Agriculture

ARCHITECTURE & ENVIRONMENTAL DESIGN

- 121 Architecture & Environmental Design
- 122 City, Community, & Regional Planning
- 123 Interior Design
- 124 Land Use Management & Reclamation
- 130 Other Arch. & Environmental Design

ART

- 141 Art History & Appreciation
- 142 Crafts
- 143 Dance
- 144 Design (other than Arch. or Interior)
- 145 Dramatic Arts
- 146 Film Arts
- 147 Fine Arts
- 148 Music
- 149 Music History & Appreciation
- 150 Other Visual & Performing Arts

BUSINESS

- 161 Accounting
- 162 Banking & Finance
- 163 Business Administration & Management
- 164 Business Administrative Support (e.g., Bookkeeping, Office Management, Secretarial)
- 165 Human Resources Development
- 166 Organizational Behavior
- 167 Marketing & Distribution
- 170 Other Business

COMMUNICATIONS

- 181 Advertising
- 182 Broadcasting & Journalism
- 183 Communications Research
- 184 Communication Technologies
- 190 Other Communications

	FOREIGN LANGUAGES	510	PSYCHOLOGY
311	Chinese (Mandarin, Cantonese, or Other Chinese)		
312	French	520	PUBLIC AFFAIRS (e.g., Community Services, Public Administration, Public Works, Social Work)
313	German		
314	Italian		
315	Latin	530	SCIENCE TECHNOLOGIES
316	Japanese		
317	Other Asian		SOCIAL SCIENCES AND HISTORY
318	Russian or Other Slavic	541	Social Sciences, General
319	Spanish	542	Anthropology
320	Other Foreign Languages	543	Archeology
		544	Area & Ethnic Studies
	HEALTH SCIENCES	545	Demography
331	Allied Health Technologies & Services	546	Economics
332	Dentistry	547	Geography
333	Health Services Administration	548	History
334	Medicine, including Psychiatry	549	International Relations
335	Nursing	550	Political Science & Government
336	Pharmacy	551	Sociology
337	Public Health	560	Other Social Sciences
338	Veterinary Medicine		
340	Other Health Sciences		VOCATIONAL TRAINING
			CONSTRUCTION TRADES
350	HOME ECONOMICS	601	Carpentry
360	INDUSTRIAL ARTS	602	Electrician
370	LAW	603	Plumbing
380	LIBRARY & ARCHIVAL SCIENCES	610	Other Construction Trades
	NATURAL SCIENCES: BIOLOGICAL SCIENCES		CONSUMER, PERSONAL, & MISC. SERVICES
391	Biochemistry	621	Personal Services (e.g., Barbering, Cosmetology)
392	Biology	630	Other Consumer Services
393	Botany		
394	Genetics		MECHANICS AND REPAIRERS
395	Immunology	641	Electrical & Electronics Equipment Repair
396	Microbiology	642	Heating, Air Conditioning, & Refrigeration Mechanics & Repairers
397	Physiology	643	Vehicle & Mobile Equipment Mechanics & Repairers
398	Zoology	644	Other Mechanics & Repairers
400	Biological Sciences, Other		
	NATURAL SCIENCES: PHYSICAL SCIENCES		PRECISION PRODUCTION
411	Astronomy	661	Drafting
412	Chemistry	662	Graphic & Print Communications
413	Physics	663	Leatherworking & Upholstering
414	Earth, Atmosphere, and Oceanographic (Geological Sciences)	664	Precision Metal Work
420	Physical Sciences, Other	665	Woodworking
		670	Other Precision Production Work
430	MATHEMATICS		TRANSPORTATION AND MATERIAL MOVING
440	STATISTICS	681	Air Transportation (e.g., Piloting, Traffic Control, Flight Attendance, Aviation Management)
450	MILITARY STUDIES	682	Land Vehicle & Equipment Operation
460	MULTI/INTERDISCIPLINARY STUDIES	683	Water Transportation (e.g., Boat & Fishing Operations, Deep Water Diving, Marina Operations, Sailors & Deckhands)
470	PARKS & RECREATION	690	Other Transportation & Material Moving
480	PHILOSOPHY AND RELIGION	900	OTHER (IF YOU USE THIS CODE, BE SURE TO WRITE IN A COMPLETE DESCRIPTION AT QUESTIONS 12-13, AND 16)
490	THEOLOGY		
500	PROTECTIVE SERVICES (e.g., Criminal Justice, Fire Protection)		

SECTION B. ACADEMIC/PROFESSIONAL BACKGROUND

14. Which of the following undergraduate academic honors or awards, if any, did you receive?
(CIRCLE ALL THAT APPLY)

1. National academic honor society, such as Phi Beta Kappa, Tau Beta Pi, or other field-specific national honor society
2. Cum laude or honors
3. Magna cum laude or high honors
4. Summa cum laude or highest honors
5. Other undergraduate academic achievement award
6. None of the above

15. When you were in graduate school, which of the following forms of financial assistance, if any, did you receive?
(CIRCLE ALL THAT APPLY, OR CIRCLE "NA")

NA. Not applicable; did not attend graduate school (GO TO QUESTION 16)

1. Teaching assistantship
2. Research assistantship
3. Program or residence hall assistantship
4. Fellowship
5. Scholarship or traineeship
6. Grant
7. G.I. Bill or other veterans' financial aid
8. Federal or state loan
9. Other loan
10. None of the above

16. Please list below the degrees or other formal awards that you hold, the year you received each one, the field code (from pages 5-6) that applies, name of the field, and the name and location of the institution from which you received each degree or award. Do not list honorary degrees. (COMPLETE ALL COLUMNS FOR EACH DEGREE)

CODES FOR TYPE OF DEGREE				
1	Professional degree (M.D., D.D.S., L.L.B., etc.)			
2	Doctoral degree (Ph.D., Ed.D., etc.)			
3	Master's degree or equivalent			
4	Bachelor's degree or equivalent			
5	Certificate, diploma, or degree for completion of undergraduate program of more than 2 years but less than 4 years in length			
6	Associate's degree or equivalent			
7	Certificate, diploma, or degree for completion of undergraduate program of at least 1 year but less than 2 years in length			

	A. Degree Code (see above)	B. Year Received	C. Field Code (from pp. 5-6)	D. Name of Field (from pp. 5-6)	E. Name of Institution (a) and City and State/Country of Institution (b)
(1) Highest	_____	19_____	_____	_____	a. _____ _____
					b. _____ _____
(2) Next Highest	_____	19_____	_____	_____	a. _____ _____
					b. _____ _____
(3) Next Highest	_____	19_____	_____	_____	a. _____ _____
					b. _____ _____
(4) Next Highest	_____	19_____	_____	_____	a. _____ _____
					b. _____ _____

17. During the 1992 Fall Term, were you employed only at this institution, or did you also have other employment including any outside consulting or other self-owned business, or private practice? (CIRCLE ONE NUMBER)

1. Employed only at this institution (SKIP TO QUESTION 19)

+) 2. Had other employment, consulting, self-owned business, or private practice

*)
*)
)> **17A. How many different jobs, other than your employment at this institution, did you have during the 1992 Fall Term? Include all outside consulting, self-owned business, and private practice. (WRITE IN NUMBER)**

_____ Number of Jobs

18. Not counting any employment at this institution, what was the employment sector of the main other job you held during Fall 1992? (CIRCLE ONE NUMBER)

1. 4-year college or university, graduate or professional school

2. 2-year or other postsecondary institution

3. Elementary or secondary school

4. Consulting, freelance work, self-owned business, or private practice

5. Hospital or other health care or clinical setting

6. Foundation or other nonprofit organization other than health care organization

7. For-profit business or industry in the private sector

8. Federal government, including military, or state or local government

9. Other (WRITE IN) _____

18A. What year did you begin that job?

(WRITE IN YEAR)

19

18B. What was your primary responsibility in that job?

(CIRCLE ONE NUMBER)

1. Teaching

2. Research

3. Technical activities (e.g., programmer, technician, chemist, engineer, etc.)

4. Clinical service

5. Community/public service

6. Administration

7. Other

18C. Was that job full-time or part-time? (CIRCLE ONE NUMBER)

1. Full-time

2. Part-time

19. The next questions ask about jobs that ended before the beginning of the 1992 Fall Term. For the three most recent and significant main jobs that you held during the past 15 years, indicate below the year you began and the year you left each job, the employment sector, your primary responsibility, and whether you were employed full-time or part-time.

- Do not list promotions in rank at one place of employment as different jobs.
- Do not include temporary positions (i.e., summer positions) or work as a graduate student.
- List each job (other than promotion in rank) separately.

If not applicable, circle "NA"))))) ▶	NA	NA	NA
<p>(1) YEARS JOB HELD</p> <p style="text-align: right;">FROM: 19_____</p> <p style="text-align: right;">TO: 19_____</p>	<p style="text-align: center;">A.</p> <p style="text-align: center;">MOST RECENT MAIN JOB (PRIOR TO FALL 1992)</p> <p style="text-align: center;">19_____</p> <p style="text-align: center;">19_____</p>	<p style="text-align: center;">B.</p> <p style="text-align: center;">NEXT MOST RECENT MAIN JOB</p> <p style="text-align: center;">19_____</p> <p style="text-align: center;">19_____</p>	<p style="text-align: center;">C.</p> <p style="text-align: center;">NEXT MOST RECENT MAIN JOB</p> <p style="text-align: center;">19_____</p> <p style="text-align: center;">19_____</p>
<p>(2) EMPLOYMENT SECTOR</p> <p>4-year college or university, graduate or professional school</p> <p>2-year or other postsecondary institution</p> <p>Elementary or secondary school</p> <p>Consulting, freelance work, self-owned business, or private practice</p> <p>Hospital or other health care or clinical setting</p> <p>Foundation or other nonprofit organization other than health care organization</p> <p>For-profit business or industry in the private sector</p> <p>Federal government, including military, or state or local government</p> <p>Other</p>	<p style="text-align: center;">(CIRCLE ONE)</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">5</p> <p style="text-align: center;">6</p> <p style="text-align: center;">7</p> <p style="text-align: center;">8</p> <p style="text-align: center;">9</p>	<p style="text-align: center;">(CIRCLE ONE)</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">5</p> <p style="text-align: center;">6</p> <p style="text-align: center;">7</p> <p style="text-align: center;">8</p> <p style="text-align: center;">9</p>	<p style="text-align: center;">(CIRCLE ONE)</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">5</p> <p style="text-align: center;">6</p> <p style="text-align: center;">7</p> <p style="text-align: center;">8</p> <p style="text-align: center;">9</p>
<p>(3) PRIMARY RESPONSIBILITY</p> <p>Teaching</p> <p>Research</p> <p>Technical activities (e.g., programmer, technician, chemist, engineer, etc.)</p> <p>Clinical service</p> <p>Community/public service</p> <p>Administration</p> <p>Other</p>	<p style="text-align: center;">(CIRCLE ONE)</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">5</p> <p style="text-align: center;">6</p> <p style="text-align: center;">7</p>	<p style="text-align: center;">(CIRCLE ONE)</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">5</p> <p style="text-align: center;">6</p> <p style="text-align: center;">7</p>	<p style="text-align: center;">(CIRCLE ONE)</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">5</p> <p style="text-align: center;">6</p> <p style="text-align: center;">7</p>
<p>(4) FULL-TIME/PART-TIME</p> <p>Full-time</p> <p>Part-time</p>	<p style="text-align: center;">(CIRCLE ONE)</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p>	<p style="text-align: center;">(CIRCLE ONE)</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p>	<p style="text-align: center;">(CIRCLE ONE)</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p>

20. About how many of each of the following have you presented/published/etc. during your entire career and during

the last 2 years? For publications, please include only works that have been accepted for publication. Count multiple presentations/publications of the same work only once. (CIRCLE "NA" IF YOU HAVE NOT PUBLISHED OR PRESENTED)

NA. No presentations/publications/etc. **(GO TO QUESTION 21)**

(WRITE IN A NUMBER ON EACH LINE; IF NONE, WRITE IN "0")

Type of Presentation/Publication/etc.	A. Total during career	B. Number in past 2 years
(1) Articles published in refereed professional or trade journals	_____	_____
(2) Articles published in nonrefereed professional or trade journals	_____	_____
(3) Creative works published in juried media	_____	_____
(4) Creative works published in nonjuried media or in-house newsletters	_____	_____
(5) Published reviews of books, articles, or creative works	_____	_____
(6) Chapters in edited volumes	_____	_____
(7) Textbooks	_____	_____
(8) Other books	_____	_____
(9) Monographs	_____	_____
(10) Research or technical reports disseminated internally or to clients	_____	_____
(11) Presentations at conferences, workshops, etc.	_____	_____
(12) Exhibitions or performances in the fine or applied arts	_____	_____
(13) Patents or copyrights (excluding thesis or dissertation)	_____	_____
(14) Computer software products	_____	_____

SECTION C. INSTITUTIONAL RESPONSIBILITIES AND WORKLOAD

21. During the 1992 Fall Term, how many undergraduate or graduate thesis or dissertation committees, comprehensive exams, orals committees, or examination or certification committees did you chair and/or serve on at this institution? (CIRCLE "NA" IF YOU DID NOT SERVE ON ANY COMMITTEES)

NA. Did not serve on any undergraduate or graduate committees **(GO TO QUESTION 22)**

(WRITE IN A NUMBER ON EACH LINE; IF NONE, WRITE IN "0")

Type of Committee	A. Number served on	B. Of that number, how many did you chair?
(1) <u>Undergraduate</u> thesis or dissertation committees	_____	_____
(2) <u>Undergraduate</u> comprehensive exams or orals committees (other than as part of thesis/dissertation committees)	_____	_____
(3) <u>Undergraduate</u> examination/certification committees	_____	_____
(4) <u>Graduate</u> thesis or dissertation committees	_____	_____
(5) <u>Graduate</u> comprehensive exams or orals committees (other than as part of thesis/dissertation committees)	_____	_____
(6) <u>Graduate</u> examination/certification committees	_____	_____

22. During the 1992 Fall Term, what was the total number of classes or sections you taught at this institution? Do not include individualized instruction, such as independent study or individual performance classes. Count multiple sections of the same course as a separate class, but not the lab section of a course. (WRITE IN A NUMBER, OR CIRCLE "0")

0. No classes taught **(SKIP TO QUESTION 25)**

+) Q _____ Number of classes/sections **(ANSWER 22A)**

*
*
*
*
*

.))> **22A. How many of those classes were classes for credit?**

0. No classes for credit **(SKIP TO QUESTION 25)**

_____ Number of classes/sections for credit **(ANSWER QUESTION 23 ON THE NEXT PAGE)**

23. For each class or section that you taught for credit at this institution during the 1992 Fall Term, please answer the following items. Do not include individualized instruction, such as independent study or individual one-on-one performance classes.

If you taught multiple sections of the same course, count them as separate classes, but do not include the lab section of the course as a separate class. For each class, enter the code for the academic discipline of the class. (Refer to pages 5-6 for the codes. Please enter the code rather than the course name.)

	A.	B.
	FIRST FOR-CREDIT CLASS	SECOND FOR-CREDIT CLASS
(1) CODE FOR ACADEMIC DISCIPLINE OF CLASS (from pp. 5-6)	<input type="text"/>	<input type="text"/>
(2) DURING 1992 FALL TERM		
Number of weeks the class met?	a. _____	a. _____
Number of credit hours?	b. _____	b. _____
Number of hours the class met per week?	c. _____	c. _____
Number of teaching assistants, readers?	d. _____	d. _____
Number of students enrolled?	e. _____	e. _____
Was this class team taught?	f. 1. Yes 2. No	f. 1. Yes 2. No
Average # hours per week <i>you</i> taught the class?	g. _____	g. _____
(3) PRIMARY LEVEL OF STUDENTS	(CIRCLE ONE)	(CIRCLE ONE)
Lower division students (first or second year postsecondary) <u>or</u>	1	1
Upper division students (third or fourth year postsecondary) <u>or</u>	2	2
Graduate or any other post-baccalaureate students, <u>or</u>	3	3
All other students?	4	4
(4) PRIMARY INSTRUCTIONAL METHOD USED	(CIRCLE ONE)	(CIRCLE ONE)
Lecture	1	1
Seminar	2	2
Discussion group or class presentations	3	3
Lab, clinic or problem session	4	4
Apprenticeship, internship, field work, or field trips	5	5
Role playing, simulation, or other performance (e.g., art, music, drama)	6	6
TV or radio	7	7
Group projects	8	8
Cooperative learning groups	9	9

C.	D.	E.	
THIRD FOR-CREDIT CLASS	FOURTH FOR-CREDIT CLASS	FIFTH FOR-CREDIT CLASS	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
a. _____ b. _____ c. _____ d. _____ e. _____ f. 1. Yes 2. No g. _____	a. _____ b. _____ c. _____ d. _____ e. _____ f. 1. Yes 2. No g. _____	a. _____ b. _____ c. _____ d. _____ e. _____ f. 1. Yes 2. No g. _____	a. Number of weeks the class met b. Number of credit hours c. Number of hours the class met per week d. Number of teaching assistants, readers e. Number of students enrolled f. Was this class team taught g. Average # hours per week <i>you</i> taught
(CIRCLE ONE) 1 2 3 4	(CIRCLE ONE) 1 2 3 4	(CIRCLE ONE) 1 2 3 4	Lower division students Upper division students Graduate, post-baccalaureate students All other students
(CIRCLE ONE) 1 2 3 4 5 6 7 8 9	(CIRCLE ONE) 1 2 3 4 5 6 7 8 9	(CIRCLE ONE) 1 2 3 4 5 6 7 8 9	Lecture Seminar Discussion group or class presentations Lab, clinic or problem session Apprenticeship, internship, etc. Role playing, simulation, performance, etc. TV or radio Group projects Cooperative learning groups

24. Did you teach any undergraduate courses **for credit** during the 1992 Fall Term at this institution?

- +) Q 1. Yes (ANSWER 24A) 2. No (SKIP TO QUESTION 25)

*)
*)
) > 24A. In how many of the undergraduate courses that you taught **for credit** during the 1992 Fall Term did you use . . .
(CIRCLE ONE NUMBER FOR EACH ITEM)

None	Some	All	
1	2	3	a. Computational tools or software?
1	2	3	b. Computer-aided or machine-aided instruction?
1	2	3	c. Student presentations?
1	2	3	d. Student evaluations of each other's work?
1	2	3	e. Multiple-choice midterm and/or final exam?
1	2	3	f. Essay midterm and/or final exams?
1	2	3	g. Short-answer midterm and/or final exams?
1	2	3	h. Term/research papers?
1	2	3	i. Multiple drafts of written work?
1	2	3	j. Grading on a curve?
1	2	3	k. Competency-based grading?

25. For each type of student listed below, please indicate how many students received individual instruction from you during the 1992 Fall Term, (e.g., independent study or one-on-one instruction, including working with individual students in a clinical or research setting), and the total number of contact hours with these students per week. Do not count regularly scheduled office hours. (WRITE IN A NUMBER ON EACH LINE; IF NONE, WRITE IN "0")

Type of students receiving Formal Individualized Instruction	A. Number of students	B. Total contact hours per week
(1) Lower division students (first or second year postsecondary)	_____	_____
(2) Upper division students (third or fourth year postsecondary)	_____	_____
(3) Graduate or any other post-baccalaureate students	_____	_____
(4) All other students	_____	_____

26. During the 1992 Fall Term, how many regularly scheduled office hours did you have per week?
(WRITE IN A NUMBER; IF NONE, WRITE IN "0")

_____ Number of hours per week

27. During the 1992 Fall Term, how much informal contact with students did you have each week outside of the classroom? Do **not** count individual instruction, independent study, etc., or regularly scheduled office hours.
(WRITE IN A NUMBER; IF NONE, WRITE IN "0")

_____ Number of hours per week

28. During the 1992 Fall Term, were you engaged in any professional research, writing, or creative works?
1. Yes (ANSWER QUESTION 29) 2. No (SKIP TO QUESTION 34)

34. How would you rate each of the following facilities or resources at this institution that were available for your own use during the 1992 Fall Term? (CIRCLE ONE NUMBER, OR "NA," ON EACH LINE)

Not Available/ Not Applicable	Very Poor	Poor	Good	Very Good	
NA	1	2	3	4	a. Basic research equipment/instruments
NA	1	2	3	4	b. Laboratory space and supplies
NA	1	2	3	4	c. Availability of research assistants
NA	1	2	3	4	d. Personal computers
MA	1	2	3	4	e. Centralized (main frame) computer facilities
NA	1	2	3	4	f. Computer networks with other institutions
NA	1	2	3	4	g. Audio-visual equipment
NA	1	2	3	4	h. Classroom space
NA	1	2	3	4	i. Office space
NA	1	2	3	4	j. Studio/performance space
NA	1	2	3	4	k. Secretarial support
NA	1	2	3	4	l. Library holdings

35. Listed below are some ways that institutions and departments may use internal funds for the professional development of faculty.

A. Was institutional or department funding available for your use during the past two years for . . .	B. Did you use any of those funds at this institution?	C. Were those funds adequate for your purposes?
(1) tuition remission at this <u>or</u> other institutions?	1. Yes)))))))▶ 2. No DK. Don't know	1. Yes 2. No
(2) professional association memberships and/or registration fees?	1. Yes)))))))▶ 2. No DK. Don't know	1. Yes 2. No
(3) professional travel?	1. Yes)))))))▶ 2. No DK. Don't know	1. Yes 2. No
(4) training to improve research or teaching skills?	1. Yes)))))))▶ 2. No DK. Don't know	1. Yes 2. No
(5) retraining for fields in higher demand?	1. Yes)))))))▶ 2. No DK. Don't know	1. Yes 2. No
(6) sabbatical leave?	1. Yes)))))))▶ 2. No DK. Don't know	1. Yes 2. No

36. On the average, how many hours per week did you spend at each of the following kinds of activities during the 1992 Fall Term? (IF NOT SURE, GIVE YOUR BEST ESTIMATES)

Average number hours per week during the 1992 Fall Term

- _____ a. All paid activities at this institution (teaching, research, administration, etc.)
- _____ b. All unpaid activities at this institution
- _____ c. Any other paid activities outside this institution (e.g., consulting, working on other jobs)
- _____ d. Unpaid (pro bono) professional service activities outside this institution

37. In column A, we ask you to allocate your total work time in the Fall of 1992 (as reported in Question 36) into several categories. We realize that they are not mutually exclusive categories (e.g., research may include teaching; preparing a course may be part of professional growth). We ask, however, that you allocate as best you can the proportion of your time spent in activities whose primary focus falls within the indicated categories. In column B, indicate what percentage of your time you would prefer to spend in each of the listed categories.

A.
% of Work
Time Spent

(WRITE IN A PERCENTAGE ON EACH LINE.
IF NOT SURE, GIVE YOUR BEST ESTIMATE; IF NONE, WRITE IN "0")

B.
% of Work
Time
Preferred

_____ %	a. Teaching (including teaching, grading papers, preparing courses; developing new curricula; advising or supervising students; working with student organizations or intramural athletics)	_____ %
_____ %	b. Research/Scholarship (including 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)	_____ %
_____ %	c. Professional Growth (including taking courses, pursuing an advanced degree; other professional development activities, such as practice or activities to remain current in your field)	_____ %
_____ %	d. Administration	_____ %
_____ %	e. Outside Consulting or Freelance Work	_____ %
_____ %	f. 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 not listed in a-e)	_____ %
100%	PLEASE BE SURE THAT THE PERCENTAGES YOU PROVIDE ADD UP TO 100% OF THE TOTAL TIME.	100%

38. Are you a member of the union (or other bargaining association) that represents faculty at this institution?

1. Union is available, but I am not eligible
2. I am eligible, but not a member
3. I am eligible, and a member
4. Union is not available at this institution

SECTION D. JOB SATISFACTION ISSUES

39. How satisfied or dissatisfied are you with each of the following aspects of your instructional duties at this institution? (CIRCLE "NA" IF YOU HAD NO INSTRUCTIONAL DUTIES)

NA. No instructional duties **(GO TO QUESTION 40)**

(CIRCLE ONE NUMBER FOR EACH ITEM; IF AN ITEM DOES NOT APPLY TO YOU, WRITE IN "NA" NEXT TO THE ITEM)

Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied	
1	2	3	4	a. The authority I have to make decisions about content and methods in the courses I teach
1	2	3	4	b. The authority I have to make decisions about other (non-instructional) aspects of my job
1	2	3	4	c. The authority I have to make decisions about what courses I teach
1	2	3	4	d. Time available for working with students as an advisor, mentor, etc.
1	2	3	4	e. Quality of undergraduate students whom I have taught here
1	2	3	4	f. Quality of graduate students whom I have taught here

40. How satisfied or dissatisfied are you with the following aspects of your job at this institution? (CIRCLE ONE NUMBER FOR EACH ITEM)

Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied	
1	2	3	4	a. My work load
1	2	3	4	b. My job security
1	2	3	4	c. Opportunity for advancement in rank at this institution
1	2	3	4	d. Time available for keeping current in my field
1	2	3	4	e. Freedom to do outside consulting
1	2	3	4	f. My salary
1	2	3	4	g. My benefits, generally
1	2	3	4	h. Spouse or partner employment opportunities in this geographic area
1	2	3	4	i. My job here, overall

41. During the next three years, how likely is it that you will leave this job to . . .

(CIRCLE ONE NUMBER FOR EACH ITEM)

Not At All Likely	Somewhat Likely	Very Likely	
1	2	3	a. accept a <u>part-time</u> job at a <u>different</u> postsecondary institution?
1	2	3	b. accept a <u>full-time</u> job at a <u>different</u> postsecondary institution?
1	2	3	c. accept a <u>part-time</u> job <u>not at a</u> postsecondary institution?
1	2	3	d. accept a <u>full-time</u> job <u>not at a</u> postsecondary institution?
1	2	3	e. retire from the labor force?

42. At what age do you think you are most likely to stop working at a postsecondary institution?

(WRITE IN AGE, OR CIRCLE "DK")

_____ Years of age

DK. Don't know

43. If you were to leave your current position in academia to accept another position inside or outside of academia, how important would each of the following be in your decision? *(CIRCLE ONE NUMBER FOR EACH ITEM)*

Not Important	Somewhat Important	Very Important	
1	2	3	a. Salary level
1	2	3	b. Tenure-track/tenured position
1	2	3	c. Job security
1	2	3	d. Opportunities for advancement
1	2	3	e. Benefits
1	2	3	f. No pressure to publish
1	2	3	g. Good research facilities and equipment
1	2	3	h. Good instructional facilities and equipment
1	2	3	i. Good job or job opportunities for my spouse or partner
1	2	3	j. Good geographic location
1	2	3	k. Good environment/schools for my children
1	2	3	l. Greater opportunity to teach
1	2	3	m. Greater opportunity to do research
1	2	3	n. Greater opportunity for administrative responsibilities

44. If you could elect to draw on your retirement and still continue working at your institution on a part-time basis, would you do so? (CIRCLE ONE)

1. Yes

2. No

DK. Don't know

45. If an early retirement option were offered to you at your institution, would you take it? (CIRCLE ONE)

1. Yes

2. No

DK. Don't know

46. At which age do you think you are most likely to retire from all paid employment? (WRITE IN AGE, OR CIRCLE "DK")

_____ Years of age

DK. Don't know

SECTION E. COMPENSATION

Note: Your responses to these items as with all other items in this questionnaire are voluntary and strictly confidential. They will be used only in statistical summaries, and will not be disclosed to your institution or to any individual or group. Furthermore, all information that would permit identification of individuals or institutions will be removed from the survey files.

47. For the calendar year 1992, estimate your gross compensation before taxes from each of the sources listed below. (IF NOT SURE, GIVE YOUR BEST ESTIMATES; IF NO COMPENSATION FROM A SOURCE, WRITE IN "0")

Compensation from this institution:

- \$ _____ a. Basic salary **S)** ▶ b. **Type of appointment (e.g., 9 months)** # of months
- \$ _____ c. Other teaching at this institution not included in basic salary (e.g., for summer session)
- \$ _____ d. Supplements not included in basic salary (for administration, research, coaching sports, etc.)
- \$ _____ e. Non-monetary compensation, such as food, housing, car (Do not include employee benefits such as medical, dental, or life insurance)
- \$ _____ f. Any other income from this institution

Compensation from other sources:

- \$ _____ g. Employment at another academic institution
- \$ _____ h. Legal or medical services or psychological counseling
- \$ _____ i. Outside consulting, consulting business or freelance work
- \$ _____ j. Self-owned business (other than consulting)
- \$ _____ k. Professional performances or exhibitions
- \$ _____ l. Speaking fees, honoraria
- \$ _____ m. Royalties or commissions
- \$ _____ n. Any other employment
- \$ _____ o. Non-monetary compensation, such as food, housing, car (Do not include employee benefits such as medical, dental, or life insurance)

Other sources of earned income (WRITE IN BELOW):

- \$ _____ p. _____
- \$ _____ q. _____

48. For the calendar year 1992, how many persons were in your household including yourself?

_____ Total number in household

49. For the calendar year 1992, what was your total household income?

\$ _____ Total household income

50. For the calendar year 1992, how many dependents did you have? Do not include yourself. (A dependent is someone receiving at least half of his or her support from you.)

_____ Number of dependents

SECTION F. SOCIODEMOGRAPHIC CHARACTERISTICS

51. Are you . . .

1. male, or
2. female?

52. In what month and year were you born?
(WRITE IN MONTH AND YEAR)

		19		
MONTH			YEAR	

53. What is your race? (CIRCLE ONE NUMBER)

1. American Indian or Alaskan Native
 2. Asian or Pacific Islander (ANSWER 53A)
 3. African American/Black
 4. White
 5. Other (WRITE IN BELOW)
-

54. Are you of Hispanic descent?
(CIRCLE ONE NUMBER)

- +) Q 1. Yes (ANSWER 54A)
*
* 2. No (SKIP TO QUESTION 55)

.)) ▶ **54A. What is your Spanish/Hispanic origin?**
If more than one, circle the one you consider the most important part of your background.

1. Mexican, Mexican-American, Chicano
 2. Cuban, Cubano
 3. Puerto Rican, Puertorriqueno, or Bouricuan
 4. Other (WRITE IN BELOW)
-

55. What is your current marital status?
(CIRCLE ONE NUMBER)

1. Single, never married
2. Married
3. Living with someone in a marriage-like relationship
4. Separated
5. Divorced
6. Widowed

)) ▶ **53A. What is your Asian or Pacific Islander origin? If more than one, circle the one you consider the most important part of your background. (CIRCLE ONE NUMBER)**

1. Chinese
2. Filipino
3. Japanese
4. Korean
5. Southeast Asian (Vietnamese, Laotian, Cambodian/Kampuchean, etc.)
6. Pacific Islander
7. Other (WRITE IN BELOW)

(SKIP TO QUESTION 55)

56. In what country were you born?

(CIRCLE ONE NUMBER)

1. USA
2. Other (*WRITE IN*) _____

57. What is your citizenship status?

(CIRCLE ONE NUMBER)

1. United States citizen, native
2. United States citizen, naturalized
3. Permanent resident of the United States (immigrant visa)

COUNTRY OF PRESENT CITIZENSHIP

4. Temporary resident of United States (non-immigrant visa)

COUNTRY OF PRESENT CITIZENSHIP

58. What is the highest level of formal education completed by your mother and your father?

(CIRCLE ONE FOR EACH PERSON)

	A.	B.	
	Mother	Father	
1	1	a.	Less than high school diploma
2	2	b.	High school diploma
3	3	c.	Some college
4	4	d.	Associate's degree
5	5	e.	Bachelor's degree
6	6	f.	Master's degree
7	7	g.	Doctorate or professional degree (e.g., Ph.D., M.D., D.V.M., J.D./L.L.B.)
8	8	h.	Other
DK	DK	i.	Don't know

59. Please indicate the extent to which you agree or disagree with each of the following statements.
(CIRCLE ONE NUMBER FOR EACH STATEMENT)

Disagree Strongly	Disagree Somewhat	Agree Somewhat	Agree Strongly	
1	2	3	4	a. Teaching effectiveness should be the primary criterion for promotion of college teachers at this institution.
1	2	3	4	b. Research/publications should be the primary criterion for promotion of college teachers at this institution.
1	2	3	4	c. At this institution, research is rewarded more than teaching.
1	2	3	4	d. State or federally mandated assessment requirements will improve the quality of undergraduate education.
1	2	3	4	e. Female faculty members are treated fairly at this institution.
1	2	3	4	f. Faculty who are members of racial or ethnic minorities are treated fairly at this institution.
1	2	3	4	g. If I had it to do over again, I would still choose an academic career.

60. Please indicate your opinion regarding whether each of the following has worsened, stayed the same, or improved in recent years at this institution. *(CIRCLE ONE FOR EACH ITEM)*

Worsened	Stayed the Same	Improved	Don't Know	
1	2	3	DK	a. The quality of students who choose to pursue academic careers in my field
1	2	3	DK	b. The opportunities junior faculty have for advancement in my field
1	2	3	DK	c. The professional competence of individuals entering my academic field
1	2	3	DK	d. The ability of this institution to meet the educational needs of entering students
1	2	3	DK	e. The ability of faculty to obtain external funding
1	2	3	DK	f. Pressure to increase faculty workload at this institution
1	2	3	DK	g. The quality of undergraduate education at this institution
1	2	3	DK	h. The atmosphere for free expression of ideas
1	2	3	DK	i. The quality of research at this institution

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

Return this completed questionnaire in the enclosed prepaid envelope to:

**National Opinion Research Center (NORC)
University of Chicago
1525 East 55th Street**

RESPONDENT LABEL