NATIONAL CENTER FOR EDUCATION STATISTICS

Statistical Analysis Report October 1998

1993 National Study of Postsecondary Faculty (NSOPF-93)

New Entrants to the Full-Time Faculty of Higher Education Institutions

NATIONAL CENTER FOR EDUCATION STATISTICS

Statistical Analysis Report October 1998

1993 National Study of Postsecondary Faculty (NSOPF-93)

New Entrants to the Full-Time Faculty of Higher Education Institutions

Martin J. Finkelstein Seton Hall University

Robert Seal William Paterson University of New Jersey

Jack H. Schuster Claremont Graduate University

U.S. Department of Education

Richard W. Riley Secretary

Office of Educational Research and Improvement

C. Kent McGuire Assistant Secretary

National Center for Education Statistics

Pascal D. Forgione, Jr. *Commissioner*

The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze, and report full and complete statistics on the condition of education in the United States; conduct and publish reports and specialized analyses of the meaning and significance of such statistics; assist state and local education agencies in improving their statistical systems; and review and report on education activities in foreign countries.

NCES activities are designed to address high priority education data needs; provide consistent, reliable, complete, and accurate indicators of education status and trends; and report timely, useful, and high quality data to the U.S. Department of Education, the Congress, the states, other education policymakers, practitioners, data users, and the general public.

We strive to make our products available in a variety of formats and in language that is appropriate to a variety of audiences. You, as our customer, are the best judge of our success in communicating information effectively. If you have any comments or suggestions about this or any other U.S. Department of Education, National Center for Education Statistics product or report, we would like to hear from you. Please direct your comments to:

National Center for Education Statistics Office of Educational Research and Improvement U.S. Department of Education 555 New Jersey Avenue, NW Washington, DC 20208–5651

October 1998

NCES World Wide Web Home Page is *http://NCES.ed.gov*

Suggested Citation

U.S. Department of Education, National Center for Education Statistics, *New Entrants to the Full-Time faculty of Higher Education Institutions,* NCES 98–252, by Martin J. Finkelstein, Robert Seal, and Jack Schuster. Project Officer, Linda Zimbler. Washington, DC: 1998.

Contact:

Linda Zimbler (202) 219-1834

Foreword

This report is one of many publications released from the 1993 National Study of Postsecondary Faculty (NSOPF-93) by the National Center for Education Statistics. NCES is pleased to sponsor analysis of the condition of faculty in higher education institutions. We hope the information in this report will be of interest to the research community and will stimulate discussions on faculty issues.

NCES has plans to publish several additional reports from NSOPF-93, since the next new data on faculty will not be available until 2000 when the results from the 1999 National Study of Postsecondary Faculty will become available. We encourage individuals to keep track of our publications through the internet at http://nces.ed.gov and through our announcements to the higher education community.

Finally, researchers are strongly encouraged to conduct their own in-depth analysis of the NSOPF data.

Paul D. Planchon Associate Commissioner Surveys and Cooperative Systems Group Roslyn Korb Director Postsecondary Surveys

Acknowledgments

We are grateful to NCES for providing the financial support for this report, and to Linda Zimbler and Valerie Martin-Conley who shepherded the report through multiple drafts and coordinated the work of statistical consultants Steve Wenck, Sam Bedinger, and Dan Heffron.

We want to thank Roslyn Korb, Daniel Kasprzyk, Marilyn McMillen, and Michael Cohen of NCES for their technical review of the report. We also want to thank Jay L. Chronister, University of Virginia; Valerie Martin-Conley, Virginia Tech; Rita Kirshstein, Pelavin Research Institute; David Leslie, College of William and Mary; and Andrew Malizio and Thomas Snyder, NCES, for their review of the report.

Constance Marie Willett at Seton Hall and Carmen Pardo at William Paterson University provided invaluable assistance in preparation of the tables and Georgianna Maroulakos at the New Jersey Institute for Collegiate Teaching and Learning was responsible for preparation of the manuscript itself.

Highlights

The following findings are based on comparisons of full-time faculty who in the Fall of 1992 were in the first seven years of their academic career (the terms, the new academic generation cohort, new entrants, new cohort, or new faculty are used interchangeably in this report to designate these faculty) with full-time faculty who in the Fall of 1992 had eight or more years of full-time college experience (the senior cohort or senior faculty). The findings are from the 1993 National Study of Postsecondary Faculty (NSOPF-93). Faculty described in this report represent a subgroup of faculty and instructional staff included in NSOPF-93, namely those full-time faculty whose principal activity during the Fall of 1992 was teaching, research, or administration (at the level of program director, department chairperson, or dean). The remainder of this section highlights key findings from the report.

Cohort Size and Distribution

- About 172,000 full-time faculty were in the first seven years of an academic career, constituting one-third of the entire full-time faculty (table 2.1).
- The new cohort disproportionately represented fields outside the liberal arts: 51 percent of the new cohort and only 45 percent of the senior cohort had their programmatic home outside the humanities, the social and natural sciences, and the fine arts fields (table 2.2).

Demographic Characteristics

- Females constituted 41 percent of the new faculty, 28 percent of the senior cohort, and 33 percent of the full-time faculty overall (table 3.2).
- Racial/ethnic minorities constituted one-sixth (17 percent) of the new cohort, one-ninth of the senior cohort (12 percent), and 13 percent of the full-time faculty overall (table 3.3).
- Faculty who are not native born U.S citizens constituted one-sixth (17 percent) of the new cohort (25 percent in the natural sciences), one-ninth (12 percent) of the senior cohort (14 percent in the natural sciences), and 13 percent of the full-time faculty overall (table 3.5).

Educational Background and Work History

- New faculty, like senior faculty, earned their highest degree in their early thirties (31-32), but did not assume their current position, on average, until six years later compared to 2-3 years later for the senior faculty (table 4.2).
- New faculty were more likely than senior faculty to have had prior work experience and indeed work experience outside academe prior to assuming the position they held in the Fall of 1992 (tables 4.3–4.5).

Types of Appointment and Job/Career Satisfaction

- One-third (33 percent) of the new cohort were in non-tenure eligible positions as compared to one-sixth of the senior faculty (16 percent), and females among new cohort faculty were more likely than males to hold such non-tenure earning appointments (40 versus 28 percent, respectively) (table 5.2).
- New faculty were more likely to be dissatisfied with their job security and their prospects for advancement than senior faculty, but five out of six of both new and senior cohorts were satisfied with their careers overall (tables 5.3 and 5.4).

Table of Contents

	Page
Acknowledgments	iv
Highlights	v
Section 1: Identifying the New Entrants to the Full-time Faculty	
Scope of Inquiry	
Defining the New Entrants	2
Section 2: Size and Distribution of the New Entrants by Institutional Type	
and Program Area	5
Size of the Cohort	5
Distribution by Institutional Type	
Distribution by Program Area	5
Section 3: Demographic Characteristics of the New Entrants	9
Age	
Gender	9
Race/ethnicity	10
Citizenship Status and Nativity	11
Summary	11
Section 4: Educational Background and Work History of the New Entrants	19
Level of Highest Degree	
Age at Award of Highest Degree and at Appointment to Current Position	19
Work (Previous Employment) History	20
Section 5: Appointment Characteristics and Satisfaction Levels of the New Entrants	29
Academic Rank	
Type of Appointment	
Job Satisfaction	30
Career Satisfaction	31
Summary	31
Section 6: Summary and Conclusions	39
Summary	
Implications for the Future Faculty and their Work	
Appendices	
Amondia A. Technical Notes	4.4

		4	
Appendix B:	Standard Error Tables		7

11	dix C: References
Tables	
2.1	Percentage distribution of full-time faculty, by faculty seniority and type and control of institution: Fall 1992
2.2	Percentage distribution of full-time faculty, by faculty seniority and program area: Fall 1992
3.1	Mean age and age distribution of full-time faculty, by faculty seniority, gender, type and control of institution, and program area: Fall 1992
3.2	Percentage distribution of full-time faculty, by faculty seniority, gender, type and control of institution, and program area: Fall 199214
3.3	Racial/ethnic distribution of full-time faculty, by faculty seniority and gender: Fall 1992
3.4	Percentage distribution of full-time faculty, by citizenship status, faculty seniority, and type and control of institution: Fall 1992
3.5	Percentage distribution of full-time faculty, by citizenship status, faculty seniority, and program area: Fall 1992
4.1	Percentage distribution of full-time faculty, by highest degree level, faculty seniority, gender, type and control of institution, and program area: Fall 199221
4.2	Average age of full-time faculty at award of highest degree and at appointment to current position, by faculty seniority and highest degree level: Fall 1992
4.3	Percentage of full-time faculty with previous employment, by faculty seniority and previous employment sector: Fall 1992
4.4	Percentage of full-time faculty with previous employment, by faculty seniority and primary responsibility in previous employment: Fall 1992
4.5	Percentage of full-time faculty who have held a job other than their current one since receiving their highest degree, by faculty seniority, highest degree level, and primary responsibility of previous employment: Fall 1992
4.6	Percentage of full-time faculty who have held a job other than their current one since receiving their highest degree, by faculty seniority, highest degree level, and previous employment sector: Fall 1992

5.1	Percentage distribution of full-time faculty, by rank, faculty seniority, type and control of institution, and program area: Fall 1992
5.2	Percentage distribution of full-time faculty, by tenure status, faculty seniority, gender, type and control of institution, and program area: Fall 1992
5.3	Percentage of full-time faculty satisfied with selected job dimensions, by faculty seniority, gender, and type and control of institution: Fall 1992
5.4	Percentage of full-time faculty satisfied with selected career dimensions, by faculty seniority, gender, type and control of institution, and program area: Fall 199237
Appen	dix B (Standard Error) Tables
B2.1	Standard errors for percentage distribution of full-time faculty, by faculty seniority and type and control of institution: Fall 1992
B2.2	Standard errors for percentage distribution of full-time faculty, by faculty seniority and program area: Fall 1992
B3.1	Standard errors for mean age and age distribution of full-time faculty, by faculty seniority, gender, type and control of institution, and program area: Fall 199261
B3.2	Standard errors for percentage distribution of full-time faculty, by faculty seniority gender, type and control of institution, and program area: Fall 1992
B3.3	Standard errors for racial/ethnic distribution of full-time faculty, by faculty seniority and gender: Fall 1992
B3.4	Standard errors for percentage distribution of full-time faculty, by citizenship status, faculty seniority, and type and control of institution: Fall 1992
B3.5	Standard errors for percentage distribution of full-time faculty, by citizenship status, faculty seniority, and program area: Fall 1992
B4.1	Standard errors for percentage distribution of full-time faculty, by highest degree level, faculty seniority, gender, type and control of institution, and program area: Fall 1992
B4.2	Standard errors for average age of full-time faculty at award of highest degree and at appointment to current position, by faculty seniority and highest degree level: Fall 1992
B4.3	Standard errors for percentage of full-time faculty with previous employment, by faculty seniority and previous employment sector: Fall 199270

B4.4	Standard errors for percentage of full-time faculty with previous employment, by faculty seniority and primary responsibility in previous employment: Fall 199271
B4.5	Standard errors for percentage of full-time faculty who have held a job other than their current one since receiving their highest degree, by faculty seniority, highest degree level, and primary responsibility of previous employment: Fall 1992
B4.6	Standard errors for percentage of full-time faculty who have held a job other than their current one since receiving their highest degree, by faculty seniority, highest degree level, and previous employment sector: Fall 1992
B5.1	Standard errors for percentage distribution of full-time faculty, by rank, faculty seniority, type and control of institution, and program area: Fall 199274
B5.2	Standard errors for percentage distribution of full-time faculty, by tenure status, faculty seniority, gender, type and control of institution, and program area: Fall 199276
B5.3	Standard errors for percentage of full-time faculty satisfied with selected job dimensions, by faculty seniority, gender, type and control of institution: Fall 199278
B5.4	Standard errors for percentage of full-time faculty satisfied with selected career dimensions, by faculty seniority, gender, type and control of institution, and program area: Fall 1992

Section 1: Identifying the New Entrants to the Full-time Faculty

Powerful pressures are already at work that will reshape American higher education over the next several decades (Kerr 1994, Kennedy 1995). Among those forces most frequently cited are the demographic shifts that will promote an increasing focus on multiculturalism; technological developments that will assuredly revolutionize instruction and scholarly communication; and economic constraints that will require increased emphases on productivity improvements and cost savings.

Less frequently discussed are the characteristics and orientation of the faculty members who will be on the front lines—and who will determine on a daily basis how well the system adapts to new realities. Starting in the mid 1950s, many thousands of faculty members, often without doctoral degrees, were hired to staff the rapid expansion of higher education (Cartter, 1976). By the late 1960s, however, a new cohort of faculty, more research-oriented than their predecessors, began to replace them. It is these "teacher-scholars" who have largely reshaped our current system in the image of their own collective career aspirations and values (Jencks and Riesman, 1968). Now a new academic generation is beginning to emerge as their successors, a product of different pressures and priorities. In some respects they can expect to be less influential in the face of powerfully determinative demographic, economic, and technological forces that are transforming higher education. And yet, despite the environmental constraints, this cohort of recent hires, in view of its large size, is certain to play an influential, long-term role in how our national higher education system evolves. Accordingly, if we understand who these new faculty members are and what values they bring to their classrooms and laboratories, we will have provided an important lens through which to view higher education's future path.

This report provides at least partial answers to a host of questions about the future faculty: What is known about this new academic generation? Who are they? Where do they come from? What are the orientations, values, and experiences that they bring to their work? And, central to the present inquiry, how do they compare to that dominant earlier cohort that molded higher education for two decades and whose influence still dominates? Is a "new breed" emerging—a cohort whose characteristics, both demographic and attitudinal, clearly distinguish them from their predecessors? And, if that is the case, are those changes so pronounced that the new cohort can be expected, despite the limitations imposed by the environment, to infuse higher education with different values and directions? To a considerable degree, the future of the academic profession and the outlook for the American academy itself hinges on the answers to these questions.

The 1993 National Study of Postsecondary Faculty (NSOPF-93) permits the delineation of this new academic generation—which is defined as the cohort of full-time faculty members in the first seven years of their academic careers (the terms, the new academic generation cohort, new entrants, new cohort, or new faculty are used interchangeably in this report to depict these

faculty)—and to examine how this subgroup of faculty compares to a more senior cohort of fulltime faculty on a wide variety of demographic and career variables.¹

Scope of Inquiry

The following sections describe the methods employed to identify this new academic generation and various comparison groups within the more senior cohort. Following a description of the basic profile of the new academic generation (their size and institutional venues in relation to more senior faculty), comparisons also are drawn along the following dimensions:

- Demographic characteristics, including age, gender, race/ethnicity, and citizenship status;
- Educational and work history, including highest degree earned and previous employment; and
- Current job characteristics, including rank, tenure status, and job/career satisfaction.

Whenever instructive, comparisons are undertaken with appropriate controls that permit breakouts by institutional type, academic program area, and various aspects of the respondent's career stage and background. All results reported are significant at the .05 level.² Finally, drawing from these data, conclusions and possible implications for the future of higher education are discussed.

Defining the New Entrants

Based on the variables included in the NSOPF-93 faculty survey instrument, four criteria were selected to define membership in the subgroup of new entrants:

- Academic status: having faculty status;
- Employment status: full-time (as distinguished from part-time);
- Principal activity: teaching, research, or administration (at the level of program director, department chair, or dean) during Fall 1992;³ and
- Duration of faculty experience: seven years or less in a full-time faculty position (including current appointment and any previous academic employment).

¹The *Technical Notes* provide a description of the NSOPF-93 survey, sampling design, sources of error and weighting procedures.

² 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 among the multiple comparisons is considerably more rigorous than the 1.96 t-value required for a single comparison. See the *Technical Notes* for a description of accuracy of estimates.

³ This excludes those individuals who may have faculty status at their institution (and may actually teach), but whose principal job responsibilities are not classroom instruction, including, for example, counselors, librarians, senior administrators, and clinical faculty in the health related fields who are primarily clinicians. Other NCES reports from NSOPF may have different inclusion criteria. It is important that the reader recognize what subgroup of faculty and instructional staff are included in any particular NSOPF report.

For purposes of this report, current part-time faculty members were excluded. This meant bypassing a very sizable⁴ —and very important—segment of the contemporary faculty. However, the thrust of our inquiry focused on the changing characteristics of the traditional full-time faculty and, accordingly, the part-timers, despite their growing presence in the conduct of postsecondary education, were excluded from this analysis. Basic to this analysis was the decision to select into the new entrant cohort only those full-time faculty whose full-time faculty experience was less than seven years. That is, full-time faculty members were excluded from the new entrants cohort (and placed in the residual senior faculty cohort) if they already had accumulated more than seven years of full-time faculty experience at one or more higher education institutions. In this fashion, full-time faculty who were relatively new to their current institution but had eight or more years of full-time faculty experience in higher education were included in the senior cohort. As a cutoff point, seven—as well as any other number, for that matter—is an arbitrary choice. It was chosen because persons hired as recently as 1986 were, as of the Fall of 1992, still relatively young in their careers. Conversely, more than seven years would undesirably increase the proportion of that cohort that was becoming well established, that is, already attaining promotions and tenure. Thus seven years seemed a better breakpoint than any other number of years.

A similar set of criteria was used to define an appropriate comparison group of senior faculty: having faculty status; being employed full time; and having teaching, research or administration (at the level of program director, department chair or dean) as one's principal activity. The one difference: for inclusion in the senior cohort, the number of cumulative years in full-time faculty positions, including current and previous positions, needed to be greater than seven. And so, our analysis compared faculty cohorts whose basic status was essentially the same except for seniority.

⁴ It is estimated that 435,735 faculty and instructional staff were employed part time in the Fall of 1992 (NSOPF-93 unpublished data). NCES plans to release a report on part-time instructional faculty and staff in the near future.

Blank page

Section 2: Size and Distribution of the New Entrants by Institutional Type and Program Area

Size of the New Cohort

Based on our selection criteria, the new entrant cohort in the Fall of 1992 numbered 172,319 full-time faculty.⁵ This compares to 342,657 full-time faculty in the senior cohort, or almost precisely twice as many as the new entry faculty. Put another way, these new entrants constituted one-third (33.5 percent) of the 514,976 total full-time faculty that met our four selection criteria.⁶ Thus, a very sizable infusion of "new blood" was apparent. This will strike some observers as surprising, for the recent past is widely perceived to be a static rather than a dynamic period of time in the academic marketplace; it has been commonplace, probably verging on a near consensus, to think of higher education as being gripped by market conditions that have forestalled significant numbers of new entrants. The facts, however, showed a substantial stream, no mere trickle, of new faces—and, as detailed below, a cohort of faculty members who were much more diverse than their predecessors.

Distribution by Institutional Type

As table 2.1 shows, much of the recent hiring has been at research universities (29.5 percent of all new cohort faculty), with new entrants accounting for 41.4 percent of the faculties at the *private* research universities.⁷ Doctorate-granting institutions not classified as "research universities" accounted for 15.3 percent of the new entrants, while comprehensive universities accounted for another 23.2 percent, liberal arts colleges for only 7.4 percent, and public 2-year colleges for 19.3 percent.

Distribution by Program Area

Viewed by program area (table 2.2), the data show that new faculty were less likely to have their academic homes in the traditional arts and sciences than their senior colleagues. Conversely, they were more likely to have their academic homes in the professions. Forty-nine percent of the new cohort (versus 55.1 percent of the senior cohort) were teaching in the fine arts, the humanities, or the natural or social sciences – and that difference was largely accounted for by the smaller percentage of new faculty in the humanities and the fine arts. The increased

⁵ Of the new entrant faculty, 33 percent had one to two years full-time experience, 43 percent had three to five years full-time experience, and 24 percent had six or seven years full-time experience.

⁶ Applying the selection criteria described above, the total number of full-time faculty in this analysis was 514,976. This constitutes 86.1 percent of the 598,231 full-time faculty and instructional staff reported as full-time faculty and instructional staff in the NSOPF-93 faculty survey. Excluded, therefore, are 83,255 full-time individuals whose principal responsibilities differed from those of teaching, research, or administration. The largest segment, about one-third of this excluded group, are individuals who reported clinical service as their primary activity and who teach in health related programs.

⁷ For the NSOPF-93 faculty survey, institutions were coded according to a modified Carnegie classification scheme (Carnegie Foundation, 1994). See the *Technical Notes* for a description of the various categories.

prominence of the professions was partly accounted for by the larger contingent of new faculty in the health sciences.

The significant developments here were twofold: first, the decline in the liberal arts' share, for the liberal arts faculty constituted more than one-half (55.1 percent) of the senior cohort; second, the increase in the professional fields, especially the health sciences, which claimed about one-sixth of the new cohort as compared to one-eighth of the senior cohort.

	All facul	tv ¹	New facu	ltv ²	Senior fac	sultv ²	New faculty as percent of
Type and control of institution	Number	Percent	Number	Percent	Number	Percent	
All institutions	514,976	100.0	172,319	100.0	342,657	100.0	
All research institutions	141,593	27.5	50,867	29.5	90,727	26.5	35.9
Public	108,309	21.0	37,085	21.5	71,224	20.8	34.2
Private	33,284	6.5	13,782	8.0	19,502	5.7	41.4
All other doctorate-granting institutions ³	76,207	14.8	26,361	15.3	49,845	14.6	34.6
Public	50,581	9.8	17,028	9.9	33,553	9.8	33.7
Private	25,626	5.0	9,333	5.4	16,293	4.8	36.4
All comprehensive institutions	131,418	25.5	39,929	23.2	91,490	26.7	30.4
Public	93,877	18.2	28,017	16.3	65,860	19.2	29.8
Private	37,541	7.3	11,912	6.9	25,630	7.5	31.7
Private liberal arts institutions	37,426	7.3	12,662	7.4	24,764	7.2	33.8
Public 2-year institutions	103,529	20.1	33,283	19.3	70,246	20.5	32.2
All other institutions ⁴	24,803	4.8	9,217	5.4	15,586	4.6	37.2

Table 2.1—Percentage distribution of full-time faculty, by faculty seniority and type and control of institution: Fall 1992

¹ Includes full-time faculty who reported their principal activity during Fall 1992 was teaching, research, or selected administration activities.

² New full-time faculty are defined as having 7 years or less in a full-time faculty position; whereas senior faculty are those who had more than 7 years in a full-time faculty position.

³ Includes medical schools.

⁴ Includes public liberal arts, private 2-year, and other specialized institutions except medical schools.

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."

	All faculty ¹		New faculty ²		Senior faculty ²		New faculty as percent of	
- Program area	Number	Percent	Number	Percent	Number	Percent	all faculty	
All program areas ³	503,141	100.0	166,045	100.0	337,096	100.0	33.0	
Professions	165,382	32.9	59,966	36.1	105,416	31.3	36.3	
Business	39,442	7.8	13,293	8.0	26,149	7.8	33.7	
Education	35,152	7.0	11,326	6.8	23,826	7.1	32.2	
Engineering	25,116	5.0	9,278	5.6	15,838	4.7	36.9	
Health Sciences	65,673	13.1	26,069	15.7	39,604	11.8	39.7	
Liberal arts and sciences	266,944	53.1	81,297	49.0	185,647	55.1	30.5	
Fine arts	31,045	6.2	8,394	5.1	22,651	6.7	27.0	
Humanities	74,779	14.9	21,504	13.0	53,275	15.8	28.8	
Natural sciences	103,382	20.6	33,141	20.0	70,241	20.8	32.1	
Social sciences	57,738	11.5	18,258	11.0	39,480	11.7	31.6	
All other program areas	70,815	14.1	24,782	14.9	46,033	13.7	35.0	

Table 2.2—Percentage distribution of full-time faculty, by faculty seniority and program area: Fall 1992

¹ Includes full-time faculty who reported their principal activity during Fall 1992 was teaching, research, or selected administration activities.

² New full-time faculty are defined as having 7 years or less in a full-time faculty position; whereas senior faculty are those who had more than 7 years in a full-time faculty position.

³ The numbers for program area differ slightly from those for other variables (i.e., type and control of institution) because some faculty did not report a principal area of teaching.

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."