

# Update

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## Non-Instructional Staff in Higher Education

This report reviews non-instructional employees in higher education institutions and looks specifically at the characteristics of those newly hired. This topic is important because it reveals the changes in the number and type of higher education employees. (The

next issue of *Update* will report on faculty.)

The National Center for Education Statistics (NCES) *Fall Staff in Postsecondary Institutions, 1995* report is the basis of this analysis. Colleges and universities reported to the Staff Survey

in the fall of 1995. This report discusses the composition of higher education staff and compares it to that of 1976. These data represent the most current and only comprehensive data source on the number of employees working in higher education institutions. Higher educa-

**Table 1**

**Number of staff in higher education institutions by primary occupation and full-time equivalent students in 1976, 1987 and 1995, and percent change**

	1976	1987	1995	Percent
All higher education staff				Change from 1976 to 1995
Executive, administrative	101,263	*	147,445	46%
Other professional staff	178,560	*	449,807	152%
Other staff	790,671	*	917,208	16%
Total	1,070,494	*	1,514,460	41%
Full-time equivalent (FTE) students	8,148,751		10,173,128	25%
Total staff/FTE students	0.13		0.15	15%
Other staff				Change from 1987 to 1995
Clerical, secretarial	*	435,434	441,196	1%
Service, maintenance	*	236,237	223,529	-5%
Technical, paraprofessional	*	167,377	187,900	12%
Skilled crafts	*	60,511	64,583	7%
Total	*	899,559	917,208	2%
Full-time equivalent (FTE) students		9,076,271	10,173,128	12%
Other staff/FTE students		0.10	0.09	-1%

\*Data not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics. E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), pp. 1-7 & 1-13. U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics 1997*, NCES 98-015, by Thomas D. Snyder. Production Manager, Charlene M. Hoffman. Program Analyst, Claire M. Geddes. (Washington DC: 1997), p. 182.

tion employees can fall into one of six categories: executive and administrative, other professional, technical and paraprofessional, clerical and secretarial, skilled crafts, or service and maintenance.

### Overview

Table 1 provides an overview of the changes in staff over the past two decades.<sup>1</sup> In the fall of 1995, there were 1.5 million non-instructional staff in the U.S.'s higher education institutions, a 41 percent increase from the 1.1 million non-instructional staff in 1976. The largest increase was in other professional staff (staff with baccalaureate degrees who are not included with executive/administrative, i.e., librarians, counselors, admissions staff) with a 152 percent increase.

The smallest increase was in other staff (clerical/secretarial, service/maintenance, technical/paraprofessional and skilled crafts) which increased 16 percent over the two decades. From 1987 to 1995, the number of other staff employees increased only 2 percent; thus, the majority of the 16 percent overall increase since 1976 occurred between 1976 and 1987. Further, over the past decade, service and maintenance employees experienced a 5 percent decline in the number of positions they held in higher education.

Full-time equivalent (FTE) student enrollment increased

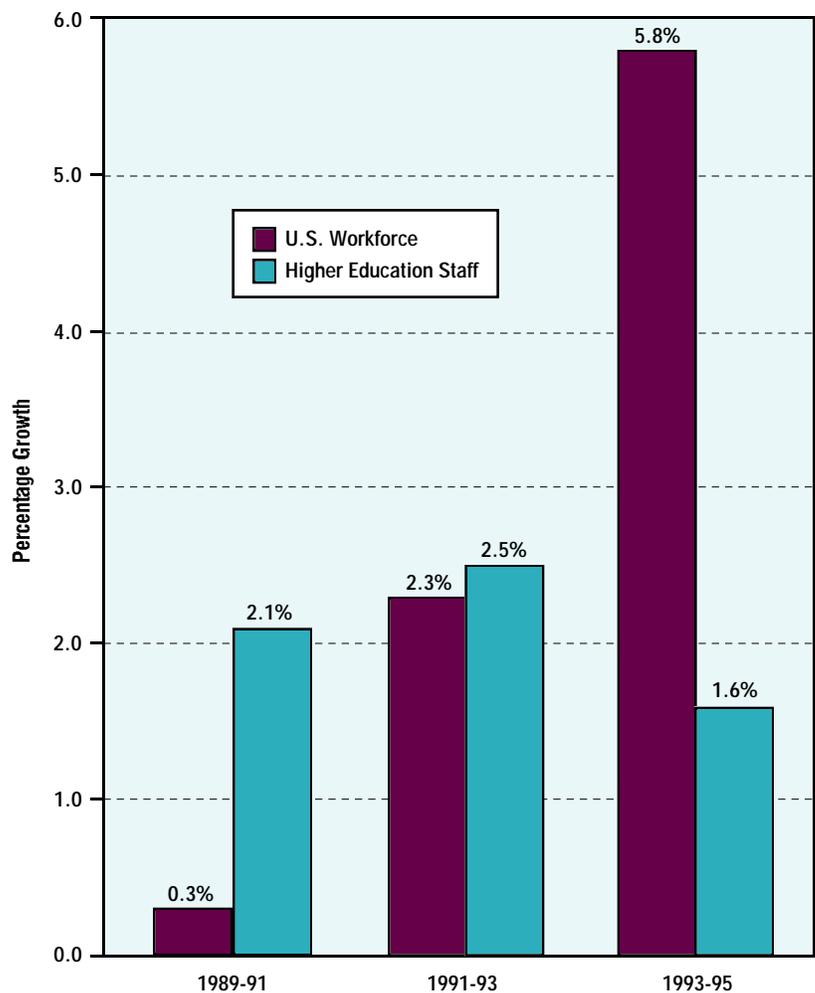
at a slower rate from 1976 to 1995 than that of the higher education staff, 25 compared to 41 percent; consequently, the ratio of staff to FTE student grew 15 percent over the 20 years. Conversely, from 1987 to 1995, FTE students increased by 12 percent, while other staff increased only 2 percent, causing a 1 percent decline in the ratio of other staff to FTE students over the 10

year period. FTE student enrollment in higher education institutions is included in Table 1.

Although higher education jobs have experienced growth over the past 20 years, growth between 1993 and 1995 slowed from its previous rate and in comparison with the nation's overall employment growth, as depicted in Figure 1. From 1989 to

Figure 1

Percentage growth in U.S. non-farm establishments payroll and higher education staff: 1989-95



SOURCE: U.S. Department of Education, National Center for Education Statistics. E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), p. 1-2.

1993, higher education experienced job growth that outpaced that of the labor force. However, from 1993 to 95, growth slowed to a rate below that of previous years in higher education, and well below that of the national labor force, 5.8 percent for the labor force compared to 1.6 percent in higher education.

### **Employees by Employment Status**

The number of full-time employees increased 43 percent from 877,833 in 1976 to 1,250,549 in 1995. The number of part-time positions increased at a slightly lower rate than the number of full-time positions from 1976 to 1995, 37 percent. Part-time staff comprised 18 percent of all higher education staff in 1976, and about the same portion in 1995, 17 percent. Table 2 displays higher education staff by employment status.

### **Employees by Gender**

Comparable historical data by gender was only collected for executive, administrative and other professional employees. Table 3 displays the number of full-time men and women in these positions in 1976 and 1995 and the percent change over the two decades.

While the number of executive and administrative jobs held by men only increased 10 percent over the 20 years, the number of women in

**Table 2**

**Number of staff in higher education institutions in 1976 and 1995 and percent change by primary occupation and employment status**

	1976	1995	Percent change 1976 to 1995
Executive, administrative			
Full-time	97,003	140,990	45%
Part-time	4,260	6,455	52%
Total	101,263	147,445	46%
Other professional			
Full-time	150,319	374,698	150%
Part-time	28,241	75,109	166%
Total	178,560	449,807	152%
Other staff			
Full-time	630,511	734,861	17%
Part-time	160,160	182,347	14%
Total	790,671	917,208	16%
Total, all staff			
Full-time	877,833	1,250,549	43%
Part-time	192,611	263,911	37%
Total	1,070,494	1,514,460	41%

SOURCE: Derived from U.S. Department of Education, National Center for Education Statistics. E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), p. 1-14.

**Table 3**

**Number of full-time staff in higher education institutions in 1976 and 1995 and percent change, by primary occupation and gender**

	1976	1995	Percent change 1976 to 1995
Executive, administrative			
Men	72,013	79,232	10%
Women	24,990	61,758	147%
Other professional			
Men	76,200	151,534	99%
Women	74,119	223,164	201%

SOURCE: Derived from U.S. Department of Education, National Center for Education Statistics. E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), p. 1-14.

these positions increased 147 percent. In 1976, women held only one-quarter of the executive and administrative positions while in 1995 they held 44 percent. Likewise, while women held approximately one-half of the other professional positions in 1976, the number of women

in these positions tripled over the two decades. Women held 60 percent of the other professional positions in 1995.

### **Employees by Race**

Seventy-four percent of all staff were white, non-

**Table 4**

**Percentage distribution of full-time staff in higher education institutions by race/ethnicity and primary occupation, and U.S. labor force race/ethnicity distribution, 1995**

	White non-Hispanic	Black, non-Hispanic	Hispanic	Asian/Pacific Islander	American Indian	Other
Primary occupation						
Executive, administrative	85%	9%	3%	2%	1%	1%
Other professional	79%	9%	3%	5%	0%	3%
Technical, paraprofessional	72%	16%	5%	4%	1%	1%
Clerical, secretarial	74%	16%	6%	3%	1%	1%
Skilled crafts	81%	11%	6%	1%	1%	0%
Service, maintenance	56%	31%	9%	2%	1%	1%
Total	74%	15%	5%	3%	1%	1%
US labor force	76%	11%	9%	4%	NA	NA

NA = Data not available.

SOURCE: Derived from U.S. Department of Education, National Center for Education Statistics. E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), p. 1-17, B-5.

Hispanic in 1995. While white, non-Hispanics comprised larger portions of the executive, administrative, skilled crafts and other professional positions (85, 81 and 79 percent respectively), they made up a smaller portion of the service and maintenance positions (56 percent). While black, non-Hispanics comprised 15 percent of all staff, they held 31 percent of the service and maintenance jobs and only 9 percent of the executive, administrative and other professional positions. Table 4 displays the distribution of full-time staff by race/ethnicity.

Black, non-Hispanic employees represented a higher portion of full-time higher education staff than were represented in the U.S. labor force in 1995, 15 compared to 11 percent. This was not the case for white, non-

Hispanics (74 percent) and Hispanics (5 percent) which experienced employment below those in the U.S. labor force (76 and 9 percent).

### **New Hires**

Although the number of higher education non-instructional staff positions increased 41 percent over the past two decades, the number of full-time new hires declined 35 percent over the same time period.<sup>2</sup> Since the portion of staff that are part-time remained stable over the past 20 years, this finding indicates employees in higher education over the past 20 years have stayed in their positions with some constancy, while the rate of full-time new hires slowed. Table 5 summarizes the number of newly hired non-instruction staff by primary occupation in 1977 and 1995, and Figure 2 displays the

change in the number of new hires by primary occupation over the two decades.

The U.S. labor force experienced a shift in the demand for different types of employees over the past several decades. As computers and technology came into the workplace, automation and computerization reduced the demand for service, maintenance, clerical and secretarial positions. Higher education also experienced this shift. As computerization and automation redefined the work to be done, professional and administrative positions were created in place of clerical and secretarial positions as employees with technical knowledge were needed to supervise the computerized systems. Further, in recent years, colleges and universities have contracted their maintenance to outside compa-

nies; thereby, decreasing the number of this type of employee actually employed by the institution.

Overall, the number of newly hired full-time employees decreased by 35 percent from 95,939 in 1977 to 62,091 in 1995. As Figure 2 displays, the number of new hires increased only in executive and administrative and other professional jobs from 1977 to 1995 (3 and 4 percent respectively). The biggest loss in the number of new hires was in service and maintenance jobs (a 57 percent decline). In fact, the attrition seen in the number of service and maintenance positions over the past two decades leads to the conclusion that when employees in these jobs left, their jobs were not filled.

**Table 5**  
**Number of newly hired full-time staff in higher education institutions in 1977 and 1995 by primary occupation**

	1977	1995
Primary occupation		
Executive, administrative	5,146	5,320
Other professional	21,716	22,653
Technical, paraprofessional	11,992	8,420
Clerical, secretarial	35,371	16,273
Skilled crafts	2,732	1,298
Service, maintenance	18,982	8,127
Total	95,939	62,091

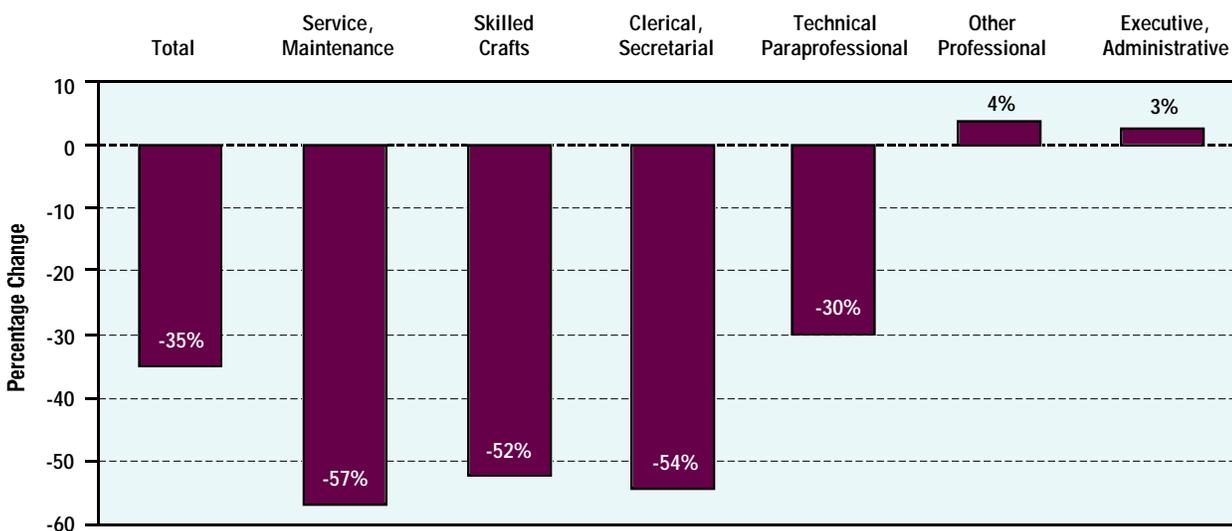
SOURCE: Derived from U.S. Department of Education, National Center for Education Statistics. E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), p. 3-2.

The resulting mix of newly hired full-time employees by primary occupations changed from 1977 to 1995 (Figure 3). In 1977, “other professional employees” constituted 23 percent of the new hires. In 1995, the same group was 36 percent of the new hires, an increase of

13 percentage points. Also, executive and administrative new hires increased from 5 percent of the new hires in 1977 to 9 percent in 1995. On the other hand, clerical and secretarial new hires decreased by 11 percentage points from 37 percent in 1977 to 26 percent in

**Figure 2**

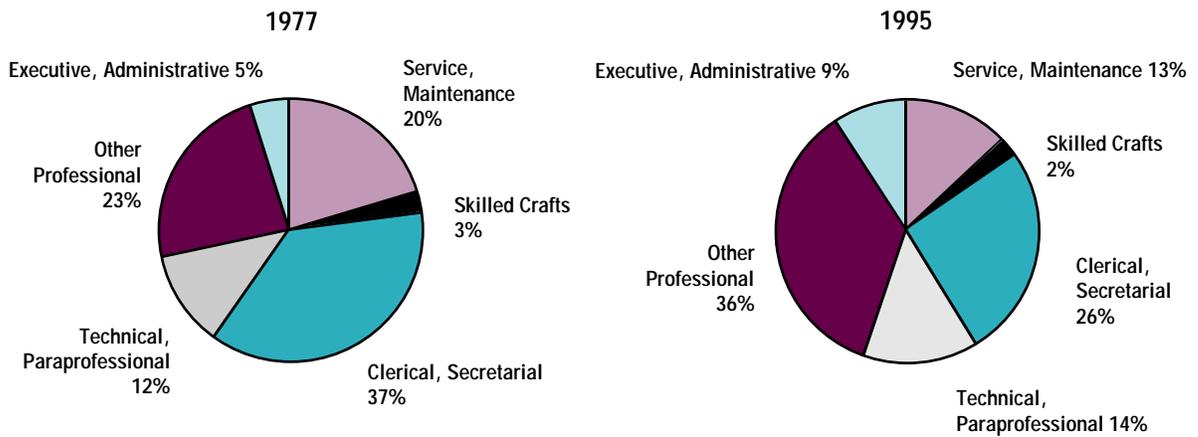
**Percentage change of newly hired full-time staff by primary occupation, 1977 to 1995**



SOURCE: Derived from U.S. Department of Education, National Center for Education Statistics. E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), p. 3-2.

Figure 3

Percentage distribution of newly hired full-time staff by primary occupation, 1977 and 1995



SOURCE: Derived from U.S. Department of Education, National Center for Education Statistics. E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), p. 3-2.

1995. And, service and maintenance new hires decreased by 7 percent from 20 percent in 1977 to 13 percent in 1995.

### ***New Hires by Gender***

Overall, the percentage of newly hired full-time employees that were women decreased slightly from 1977 to 1995, 62 compared to 60 percent. Figure 4 displays the percentage of newly hired full-time employees that were women by primary occupation for 1977 and 1995.

As expected, due to the large increase in the portion of women overall in administrative and executive positions, the portion of new hires that were women in these positions was 35 percent in 1977 and 48 percent in 1995. On the other hand, the percentage of new hires that were women in clerical and secretarial positions was

91 percent in 1977, and 87 percent in 1995. The percentages of new hires that were women in the other occupations were approximately the same in 1977 and 1995.

Given the 201 percent increase in the number of full-time women holding other professional jobs from 1976 to 1995, it would be expected that the percentage of other professional new hires that were women to be much higher in 1995 than 1976. However, 54 percent of the newly hired other professionals were women in 1976, while they were 55 percent in 1995. Several explanations can account for this seeming anomaly. First, if men left these positions at a faster rate than women during the 20 year period, women had an opportunity to fill more of these positions, thereby causing the large increase in the number

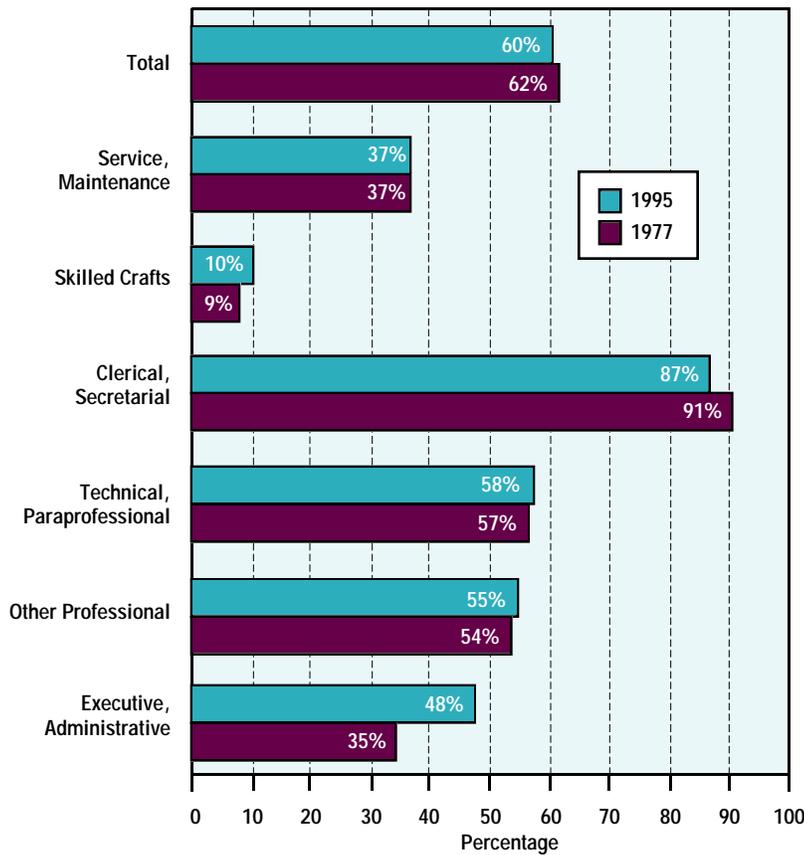
of women in the other professional positions. Second, during the years between 1976 and 1995, women may have comprised a larger portion of the other professional new hires than seen in 1976 and 1995, thus causing the large growth in the portion of women in these positions. This is evidenced by the fact that women filled 57 percent of the newly hired other professional positions in 1993.<sup>3</sup>

### ***New Hires by Race/Ethnicity***

Table 6 displays that, overall, an equal portion of minorities were hired in 1995 compared to the portion of minorities in the U.S. labor force, 24 percent (sum of black, non-Hispanics, Hispanics, and Asian/Pacific Islanders). But, the portion of new hires that were minorities was higher than the portion of minorities in

**Figure 4**

**Percentage of newly hired full-time staff that were women by primary occupation, 1977 and 1995**



SOURCE: Derived from U.S. Department of Education, National Center for Education Statistics. E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), p. 3-4.

the higher education staff positions, 23 percent (see Table 3).

The largest difference between the distribution of the current staff and that of the new hires was experienced by other professional and technical, paraprofessionals in the other race/ethnicity category.<sup>4</sup> In 1995, 3 and 1 percent of these jobs, respectively, were accounted for by staff in the other race/ethnicity category (see Table 3), yet they made up 6 and 3 percent of the new hires. Thus, in coming years, it can be expected that this group will make up a growing share of the other professional, technical and paraprofessional staff.

**Conclusion**

Growth in the number of non-teaching higher education staff exceeded that of enrollment over the past

**Table 6**

**Percentage distribution of newly hired full-time staff in higher education institutions by race/ethnicity and primary occupation, and U.S. labor force race/ethnicity distribution, 1995**

	White non-Hispanic	Black, non-Hispanic	Hispanic	Asian/Pacific Islander	American Indian	Other
<b>Primary occupation</b>						
Executive, administrative	81%	11%	4%	2%	1%	1%
Other professional	74%	9%	4%	6%	1%	6%
Technical, paraprofessional	71%	13%	6%	6%	1%	3%
Clerical, secretarial	73%	15%	7%	3%	1%	1%
Skilled crafts	78%	12%	7%	1%	1%	1%
Service, maintenance	55%	31%	9%	2%	1%	2%
Total	72%	14%	6%	4%	1%	4%
US labor force	76%	11%	9%	4%	NA	NA

NA = Data not available.

SOURCE: Derived from U.S. Department of Education, National Center for Education Statistics. *Fall Staff in Postsecondary Institutions, 1995*, datafile and U.S. Department of Education, National Center for Education Statistics, E.D. TABS: *Fall Staff in Postsecondary Institutions, 1995*, NCES 98-228, by Stephen Roey and Rebecca Rak. Project Officers, Rosa Fernandez and Sam Barbett (Washington, D.C.: 1998), p. 1-17.

20 years. The largest increase was seen in other professional, administrative and executive positions, especially for women. Most of the growth took place in the late 1970s and early 1980s, as the growth rate declined in the early 1990s.

Service and maintenance jobs lost positions while the number of clerical and secretarial positions remained constant. Further, executive, administrative and professional jobs were the only ones that experienced

growth in the number of new jobs from 1977 to 1995, albeit slight, while all other jobs experienced a decline. Contracting out and automation help explain these losses. Differences in the job growth rate among the occupations resulted in a different mix of higher education occupations between 1977 and 1995.

#### End Notes

<sup>1</sup>Data were not collected for all occupational categories consistently prior to 1993: the professional staff data were collected differently and

in different years from the non-professional staff data. Thus, historical data for some staff are reported for 1976, while others are reported for 1987.

<sup>2</sup>New hires are defined as those who appeared on the payroll for the first time between July 1 and September 30 of the survey year and who were included in the counts of fall totals. Data on new-hires are collected only for full-time permanent employees.

<sup>3</sup>Data derived from U.S. Department of Education, National Center for Education Statistics. *Fall Staff Survey, 1993 datafile*.

<sup>4</sup>Other race/ethnicity is comprised of those whose race/ethnicity is unknown, and non-resident aliens.



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