Faculty Salaries: Recent Trends

by Suzanne B. Clery and John B. Lee

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Faculty compensation is a vital issue, not only because individuals care about what they earn, but also because these salaries represent a significant component of college and university budgets. Individual salaries are related to years of experience, principal field taught, and the type of institution in which the person teaches. But, note observers, men consistently earn more than women.

This article explores differences in faculty salaries by gender, and how career attributes of male and female faculty members determine their salaries. We then review characteristics of part-time faculty members. Third, we explore the amount and source of outside income earned by faculty members—averaging an extra 20 percent for the one-half of all faculty members who earn outside income. Finally, we report the effect of bargaining unit representation on compensation for faculty members.

Our data comes from the 1999 National Survey of Postsecondary Faculty (NSOPF), conducted by the U.S. Department of Education. NSOPF sampled full- and part-time faculty members from all fields and types of institutions; one survey section compiled information on the effects of background and institutional variables on salary. We analyze salaries for faculty members whose principal job is teaching for-credit courses and who have faculty status; teaching assistants or other institutional employees without faculty status are excluded. Respondents define themselves as full- or part-time.

The subset of faculty members included in the report and slightly different variable definitions may explain why averages in this report may vary—sometimes substantially—from data reported elsewhere, specifically the NEA *Update* for September 2001, on part-time faculty. *Update* data reflects approximately 976,300 faculty members; this report includes 773,600 faculty members, a 21 percent difference. But we use the same subset of faculty members throughout this article; therefore, relative differences are comparable within this report.

OVERVIEW

In 1999, the average base salary for full-time faculty members was $51,422. Faculty in public four-year institutions earned the highest average salary ($54,694; Table 1). Next came faculty in private, not-for-profit colleges ($51,409). Colleagues in public two-year institutions earned an average of $44,612.

By rank, full professors in public four-year institutions averaged $71,161; full professors in private, not-for-profit institutions followed closely ($68,997). Instructors in private, not-for profit institutions were the least well-paid ($33,100).

By academic field salaries ranged from $58,929 for engineering faculty members to $45,580 for fine arts faculty. By field and control, agriculture and home economics faculty members in public four-year institutions had the highest average salary ($63,892). Social sciences faculty members had the highest average salary at public two-year colleges ($47,535). The $59,292 average salary for engineering faculty in private, not-for-profit colleges made these faculty the highest paid in that sector. Faculty members who taught in education programs in public two-year and private, not-for-profit institutions received the lowest average salary among all academic departments ($42,518 and $41,731, respectively).

Table 1

Basic Salary for Academic Year, Full-Time Faculty Members According to Institutional Type and Control, by Rank and Principal Field of Teaching: 1999

	All faculty	Public 4-year	Public 2-year	Private, not-for-profit
Total	$51,422	$54,694	$44,612	$51,409
Rank				
Full professor	67,628	71,161	54,459	68,997
Associate professor	51,936	53,289	45,852	51,808
Assistant professor	42,753	45,045	39,397	40,357
Instructor	37,949	34,809	40,459	33,100
Lecturer	37,216	36,549	—	39,275
Other ranks	42,417	40,524	42,936	44,381
Not applicable, no rank	42,178	—	44,958	36,632
Principal field of teaching				
Engineering	58,929	62,238	44,374	59,292
Social sciences	56,259	59,705	47,535	54,880
Agriculture and home economics	55,242	63,892	46,384	—
Health sciences	55,092	62,199	42,788	55,441
Business	54,227	60,856	46,196	52,621
Natural sciences	52,125	56,387	44,551	52,183
Other	50,911	50,859	43,275	58,233
Education	46,357	48,826	42,518	41,731
Humanities	46,949	48,620	45,101	45,961
Fine arts	45,580	45,108	45,860	46,123

Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

GENDER DIFFERENCES

Among full-time faculty, women's salaries have historically lagged behind men's earnings. Analysts offer several explanations for this difference. First, women have worked fewer years. Second, women were more likely to teach in less well-paid fields, such as nursing and education. Men, in contrast, were more likely to teach in better paid fields, such as engineering and computer science. Third, women were concentrated in community colleges or less selective colleges, where average salaries were lower than at other types of institutions, such as universities. Fourth, women were less likely to have external research funds and publications.

Table 2 shows the percent of women teaching and their average income by institutional type and control. Almost 40 percent of all full-time faculty members were female, but women represented only one-third of faculty in public and private doctoral-granting institutions. Women faculty averaged 83 percent of men's salaries ($45,524 vs. $54,990). The range: 77 percent in public universities to 92 percent in public two-year institutions.

Figure 1 explains some variation in earnings by gender: greater proportions of women were in lower-paid academic fields. Sixty-seven percent of health science faculty members were women—mostly nursing faculty—and nearly 60 percent of the education faculty members were women. In contrast, women held only 35 and 33 percent, respectively, of business and social sciences faculty positions, and only 24 percent of engineering and natural sciences positions—frequently the highest-paid positions in institutions.

Table 3 shows the relationship between selected career characteristics, including tenure status and terminal degree, to gender differences in salary. First, 61 percent of men, but only 44 percent of women, had tenure. Men also held tenure longer than women (15 years to 10 years). Second, 64 percent of male faculty, but only 47 percent of women, held doctoral degrees. Men were more likely to have published during their career, and to have published more among faculty who published. We found no difference between the percent of males and females who reported obtaining funded research. The data do not indicate the amount of funding received.

Table 2

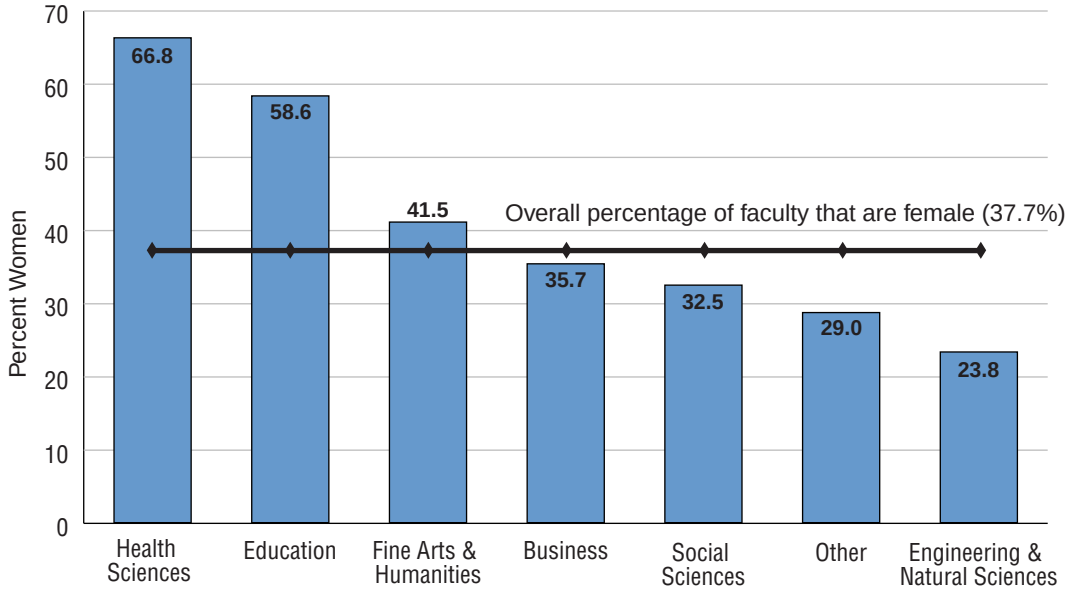
Percent of Full-Time Faculty Members That Are Women, and Average Full-Time Faculty Salaries According to Gender, by Institutional Type and Control: 1999

	Percent female	Average salary		Women's salary as a percent of men's
		Men	Women	
Total	37.7	$54,990	$45,524	82.8
Institutional type and control				
Public doctoral-granting	32.9	63,568	48,807	76.8
Private doctoral-granting	31.3	71,868	58,629	81.6
Public 4-year, non-doctoral-granting	36.2	51,842	44,830	86.5
Private 4-year, non-doctoral-granting	35.2	47,823	42,873	89.6
Public 2-year	48.1	46,329	42,763	92.3

Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

Figure 1

Percentage of Full-Time Faculty That Are Women, by Major Field of Teaching: 1999



Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

Table 3

Selected Career Characteristics of Full-Time Faculty According to Gender: 1999

	Men	Women	Total
Percent with tenure	61.4	43.7	54.8
Years since tenure achieved	14.5	10.0	13.1
Percent with Ph.D.s	64.0	47.2	57.7
Percent reporting publications for career	79.2	68.2	75.1
Number of publications if published	38.4	19.2	31.8
Any funded research	43.2	42.6	43.0

Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

PART-TIME FACULTY MEMBERS

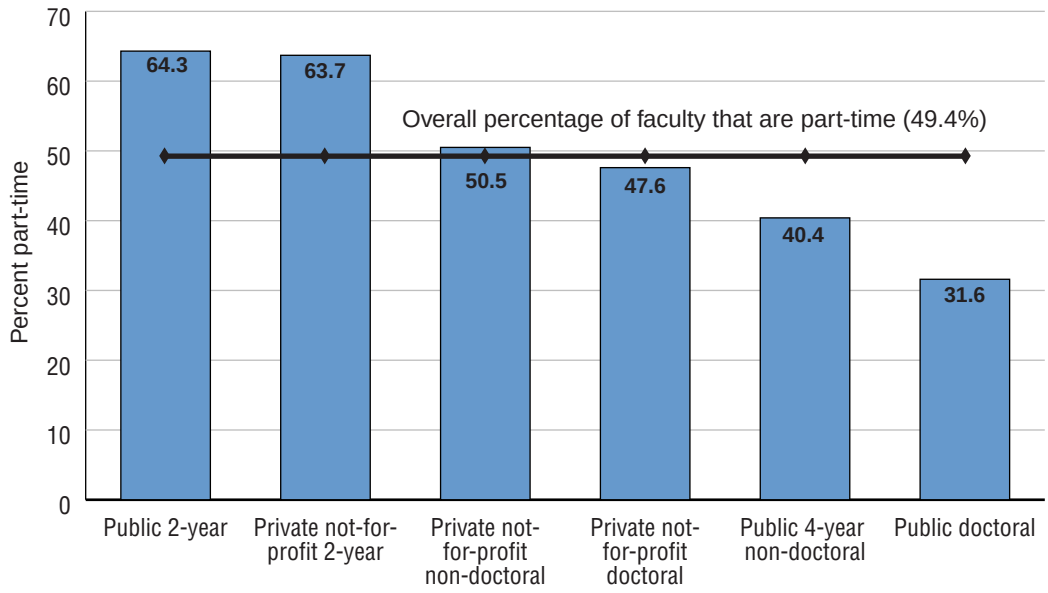
Community colleges—at 64 percent of their faculty—were most likely to hire part-timers (Figure 2). Private, not-for-profit, non-doctoral institutions employed half their faculty on a part-time basis. In contrast, public doctoral-granting institutions employed only 32 percent of their faculty on a part-time basis.

The use of part-time faculty varied by academic departments. Full-time faculty members predominated in agriculture and home economics, engineering, and natural sciences. Fine arts tended to attract a higher share of part-timers (Table 4).

Women were more likely to teach part-time than full-time (48 percent vs. 38 percent; Table 5). Part-timers also predominated in several other categories: among faculty holding the master's as their terminal degree (57 percent vs. 32 percent), and among faculty members who were on their current jobs for less than two years (23 vs. 9 percent), and between two and five years (38 percent vs. 23 percent). Part-timers averaged seven years in their current positions; full-timers, in contrast, averaged 12 years (Table 6).

Figure 2

Percentage of Faculty Members That Teach Part-Time, by Institutional Type and Control: 1999



Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

Table 4

Percentage Distribution of Faculty Members According to Employment Status, by Major Field of Teaching: 1999

	Average	Part-time	Full-time
Total	100.0	100.0	100.0
Major field of teaching			
Humanities	18.2	19.2	17.3
Natural sciences	18.1	16.6	19.6
Other	14.6	16.1	13.2
Social sciences	10.6	10.3	11.0
Health sciences	9.6	9.0	10.1
Fine arts	8.7	9.9	7.4
Business	8.2	8.1	8.3
Education	7.5	7.9	7.1
Engineering	3.4	2.3	4.5
Agriculture and home economics	1.1	0.6	1.5

Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

Table 5

Percentage Distribution of Faculty Members by Gender and Highest Degree Obtained, by Employment Status: 1999

	Gender		Highest degree obtained		
	Male	Female	Doctoral	Master's	Other
Total	57.5	42.5	38.8	44.0	21.2
Employment status					
Full-time	62.3	37.7	57.7	32.1	10.2
Part-time	52.5	47.5	18.2	56.5	25.3

Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

Table 6

Percentage Distribution of Faculty Members According to Years Held Current Position and Number of Years in Current Position, by Employment Status: 1999

	Less than 2 years	2-5 years	Over 5 years	Years in current position
Total	15.7	30.2	54.1	10.3
Employment status				
Full-time	9.1	23.1	67.9	12.2
Part-time	22.6	37.5	39.9	7.3

Note: Detail may not sum to 100 due to rounding.

Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

OUTSIDE EARNINGS

Salaries reported for faculty members represent base salaries at the institution. Some faculty earned extra money from the institution or from outside ventures. Full-time faculty members earned an average base salary of $51,422 from their institution for the academic year (Table 7). But 52 percent of full-time faculty members received income other than their basic salary from their institution. The average compensation was $7,240. The range: public, four-year institutions—$8,070; public two-year institutions—$6,772; private institutions—$6,330.

In addition, 54 percent of full-time faculty members received income for activities outside the institution, averaging eight hours per week. The average faculty member received $12,767 annually for this work; the data showed little variance among institutional types. Consulting was the most frequently reported source of outside income; 21 percent of full-time faculty members received income from this source. The range: 24 percent in public four-year institutions, 22 percent in private, not-for-profit institutions, and 14 percent in public two-year institutions. Full-time faculty members averaged $7,518 in consulting income. Less frequently reported sources of outside income included other academic institutions, self-owned businesses, and other employment.

Table 7

Components of Compensation for Full-Time Faculty by Institutional Type: 1999

	All	Public 4-year	Public 2-year	Private, not-for-profit
Basic salary for academic year	**$51,422**	**$54,694**	**$44,612**	**$51,409**
Income from any source other than institution				
Percent received	54.5	56.2	46.7	57.8
Amount received	$12,767	$12,305	$12,041	$13,962
Hours per week outside the institution	8.2	7.6	8.9	8.5
Other income from institution				
Percent received	51.7	49.5	58.5	50.0
Amount received	$7,240	$8,070	$6,772	$6,330
Income from consulting				
Percent received	21.2	24.0	14.4	21.9
Amount received	$7,518	$6,681	$6,543	$9,516
Income from another academic institution				
Percent received	7.5	5.4	9.2	9.4
Amount received	$9,475	$10,065	$6,930	$10,867
Income from self-owned business				
Percent received	5.1	4.8	7.1	4.0
Amount received	$11,862	$11,875	$11,089	$12,920
Income from other employment				
Percent received	13.4	10.9	16.6	15.1
Amount received	$11,590	$12,680	$9,153	$12,407

Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

COLLECTIVE BARGAINING

Faculty unions represented one-quarter of full-time faculty members. But union membership varied by institutional sector: from three percent of full-time faculty members in private universities to 52 percent of faculty teaching in public two-year colleges (Figure 3).

With only one exception, the data shows no significant differences between the percent of unionized and non-unionized full-time faculty within major fields of teaching. The exception: a significantly greater proportion of unionized faculty members taught in the humanities (20 percent vs. 16 percent; Table 8).

Union members were less likely to have obtained doctoral degrees than non-members (50 percent vs. 60 percent). In contrast, full-time faculty in unions were more likely to have master's degrees as their highest degree (40 percent vs. 30 percent). The disparities probably reflect the greater prevalence of unions in community colleges, where the master's is a more common terminal degree.

Full-time faculty members in unions were slightly older than non-union members (51 to 49 years), and averaged two years longer in their current jobs (Figure 4).

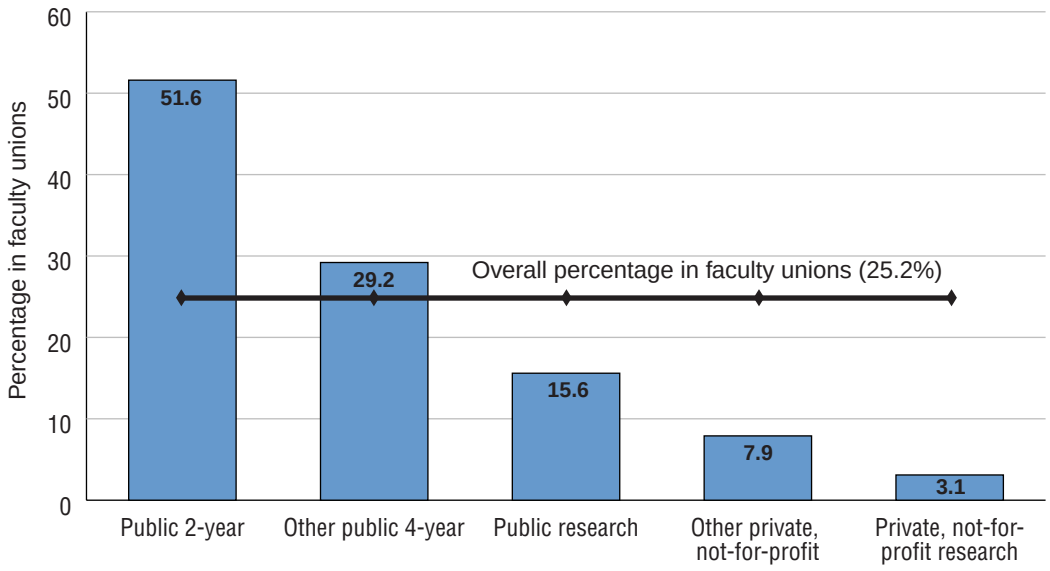
Faculty members in unions earned approximately $1,300 more than non-union colleagues (Table 9). This difference is not statistically significant, but the $9,430 difference favoring full-time union members in public two-year institutions meets the test for statistical significance ($49,295 vs. $39,865).[1] The union presence was the strongest in this sector; slightly more than half of faculty members belonged to unions (Figure 3). A $12,117 pay differential favored union members in private colleges ($59,815 vs. $47,698).

CONCLUSION

In 1999, faculty salaries differed by institutional sector and academic rank. Instructors in private colleges earned $33,100; full professors in public four-year institutions earned $71,161.

Figure 3

Percentage of Full-Time Faculty Members in Faculty Unions, by Institutional Type and Control: 1999



Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

Table 8

Percentage Distribution of Full-Time Faculty According to Union Status, by Major Field of Teaching and Highest Degree Achieved: 1999

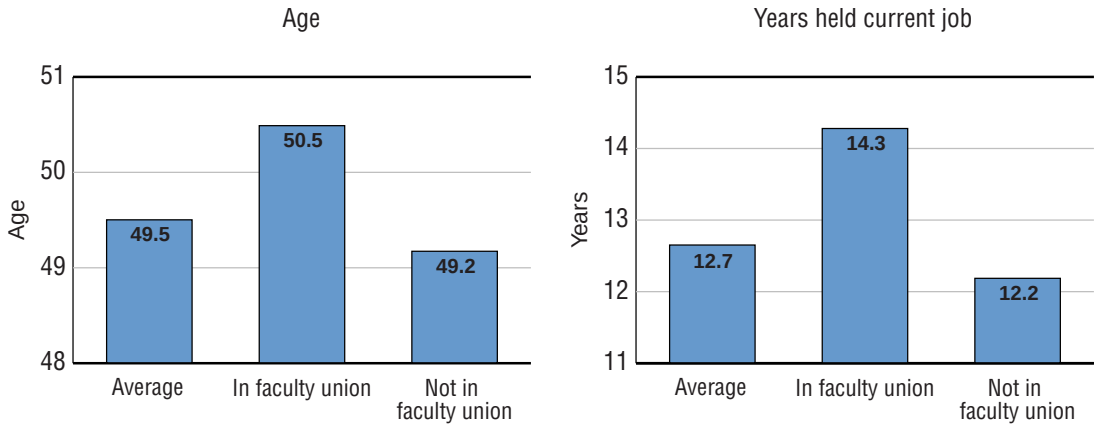
	Average	Not in faculty union	In faculty union
Total	100.0	100.0	100.0
Major field of teaching			
Natural sciences	19.6	20.0	18.5
Humanities	17.3	16.3	20.4
Other	13.2	13.1	13.4
Social sciences	11.0	10.9	11.2
Health sciences	10.1	10.4	9.1
Business	8.3	8.6	7.6
Fine arts	7.4	7.2	8.2
Education	7.1	7.2	6.9
Engineering	0.5	4.9	3.1
Agriculture and home economics	1.5	1.4	1.7
Highest degree			
First-professional degree	4.9	5.5	2.9
Doctoral degree	57.7	60.3	49.8
Master's degree	32.1	29.7	39.5
Bachelor's degree	4.4	3.6	6.6
Other	1.0	0.9	1.4

Note: Detail may not sum to 100 due to rounding.

Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

Figure 4

Average Age and Number of Years on the Job for Full-Time Faculty, by Union Status: 1999



Source U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

Table 9

Average Salary for Full-Time Faculty Members According to Union Status, by Institutional Type and Control: 1999

	Not in faculty union	In faculty union
Total	$51,380	$52,667
Institutional type and control		
Public research	60,623	60,323
Private, not-for-profit research	72,930	—
Other public 4-year	51,122	53,236
Other private, not-for-profit, 4-year	47,698	59,815
Public 2-year	39,865	49,295

Source: U.S. Department of Education, National Center for Education Statistics, National Survey of Postsecondary Faculty, 1999 (NSOPF:99) Data Analysis System (DAS), Washington, D.C., 2001.

Men in public doctoral-granting institutions earned $63,568; women earned $48,807. In part, this last disparity reflects the larger proportions of women who taught in nursing, education, and other lower-paid fields, and the predominance of men in engineering, natural sciences, and other higher-paid fields. Unionized faculty members received higher average salaries than their non-unionized counterparts. The salary differential was approximately $10,000 in community colleges, where over half of full-time faculty members belonged to unions.

Additional income provides a significant source of revenue for about one-half of full-time faculty members. The majority averaged an extra $12,000 annually by holding other jobs in their home institutions, including coaching, overloads, and summer school teaching. Outside income was a less likely source than income from the institution. Income from self-owned businesses was the most typical source of outside income.

The relative proportion of full- and part-time faculty members varied by sector. Part-timers represented the largest share of faculty members in public and private, not-for-profit two-year institutions. Fine arts programs employed the largest proportion of part-timers. Women were more likely to teach part-time than men. Part-timers were also more likely to have master's degrees; full-timers were more likely to hold doctoral degrees. Many more full-timers than part-timers were in their current positions for more than five years, but part-time faculty members averaged more than seven years in their current positions. These colleagues represent a consistent part of the higher education workforce in most colleges.

NOTE

[1] Differences were tested for statistical significance using Student's *t* statistic. Comparisons were reported as different if the difference was significant within the 95th percent confidence level.

REFERENCES

Clery, Suzanne B. "Part-Time Faculty" *Update* 7 (4) (September 2001).