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#### ABSTRACT

This research brief highlights data on faculty salaries in colleges and universities, outlines recent trends and their implications, and identifies major sources of data on the subject. Tables provide data on average faculty salaries for 1988-89 by academic rank and institution type (public, church, independent); by gender and academic rank; and by race/ethnicity (for 1985). Figures display data on real increases in faculty salaries by rank, 1978-79 to 1988-89; change in faculty salaries by rank, 1971-72 to 1988-89; changes in faculty salaries and the Consumer Price Index, 1971-72 to 1988-89; and salary increases for selected disciplines, 1982-83 to 1988-89. Findings include: (1) faculty salaries in 1989 were about nine percent lower than in 1971-72; (2) salary gaps between men and women and among faculty in different disciplines have widened in recent years; (3) faculty shortages will result from retirement and departures of existing faculty, combined with expected surges in enrollments in the late 1990s; and (4) the pool of prospective faculty has dwindled in recent years, especially among minorities, as fewer students pursue doctoral studies. (Contains nine end notes, a list of six resources, and a bibliography of eight items.) (JDD)



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## FACULTY SALARIES IN PERSPECTIVE

**Holly Hexter** 

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Division of Policy Analysis and Research American Council on Education, Washington, D.C.

## **FACULTY SALARIES IN PERSPECTIVE**

#### **Holly Hexter**

Without a doubt, higher education's major resource is the corps of roughly 825,0001 men and women who teach and perform research in colleges and universities. What are they paid for their work as educators? Do their salaries differ according to type of institution, rank, discipline, gender, region and race and ethnicity? Have salaries kept up with inflation? Does the compensation paid to college faculty for educating and research compare favorably to the salaries of other professionals?

This brief highlights current data on faculty salaries, outlines recent trends and their implications and identifies the

major sources of data on the subject.2

## Findings and Implications

- The purchasing power of faculty has eroded over the last two decades. Despite recent actions to narrow the gap, faculty salaries today on average are still about 9 percent lower than in 1971–72.
- Salary gaps between men and women and among faculty in different disciplines have widened in recent years.
- Already straining to fill faculty posts in certain fields, colleges and universities will face further shortages in the next five to 10 years. The shortages will result from retirement and departures of existing faculty, combined with expected surges in enrollments in the late 1990s.
- The pool of prospective faculty has dwindled in recent years, especially among minorities, as fewer students pursue doctoral studies. Since today's college freshmen are the faculty of the late '90s and beyond, more students must be encouraged to prepare for and enter academic careers.
- · Further, issues of faculty compensation and their impact on the attractiveness of the profession must be addressed.

## **Current Levels of Average Salaries**

In 1989, a college faculty member earned on average \$39,410. Aver ge salaries of each sector ranged from \$33,000 to \$42,000, with the highest average salaries paid by private independent institutions (table 1).

Type of Institution

As might be expected, salaries were highest at independent research universities, followed by public comprehensive universities, independent four-year colleges, and public two-year colleges.

A full professor earned on average \$64,290 at an independent research university, while a counterpart at a public research institution earned \$54,240 (15.6 percent less).

 Among other four-year institutions, average salaries for full professors ranged from \$36,000 to \$47,000. Among two-year colleges, average salaries ranged from \$25,000 to \$41,000.

These disparities in average salary reflect differences in the distribution of academic rank among institutions.

- Among four-year colleges and universities, research universities have a higher proportion of full professors than other institutions.
- One out of three full-time faculty at two-year institutions hold professorial titles, compared with almost nine out of 10 at four-year institutions.



## TABLE 1 Average Faculty Salaries, 1988–89

Academic				
_Rank_	<u> All</u>	<u>Public</u>	<u>Church</u>	Independent
Professor	\$50,420	\$50,070	\$41,900	\$55,900
Associate	37,530	37,890	33,560	38,800
Assistant	31,160	31,680	27,590	31,930
Instructor	23,660	23,890	22,060	. 24,050
Lecturer	25,770	25,360	25,010	27,850
No rank	28,920	28,420	25,250	30,350
All ranks	39,410	39,640	33,180	42,410

Note: Includes full-time faculty at institutions with academic ranks. Based on data from 1,552 institutions.

Source: "The Annual Report on the Economic Status of the Profession, 1988-89," Academe, March-April 1989.

#### TABLE 2

# Average Faculty Salaries For Men and Women, 1988–89

Academic		
<u>Rank</u>	<u>Men</u>	<u>Women</u>
Professor	\$51,150	\$45,190
Associate	38,200	35,550
Assistant	32,230	29,440
Instructor	24,550	22,910
Lecturer	27,690	23,960

Note: Includes full-time faculty at institutions with academic ranks. Based on data from 1,552 institutions.

Source: "The Annual Report on the Economic Status of the Profession, 1988–89," *Academe*, March–April 1989.

#### Rank

Average faculty salaries increase with academic rank. The difference between average salaries in public and independent institutions widens with rank.

- An instructor, for instance, earned \$23,660, compared to a full professor's earning \$50,420 (table 1).
- Among four-year institutions, salaries of instructors and lecturers differed by \$6,000 according to sector; average salaries of full professors differed by up to \$25,000.

Discipline

Faculty salaries vary by discipline according to how sensitive the field is to the nonacademic labor market. Thus, faculty in law, computer information, business, medicine and engineering receive higher-than-average salaries.

- In 1989, for example, a law professor earned \$74,544, 36 percent more than the average salary of faculty members in all fields.
- At the low end of the pay spectrum, a professor in education earned \$47,571. Faculty in fine arts, foreign languages, literature, and social sciences also tended to earn lower-than-average salaries.<sup>3</sup>

#### Gender

Men earned more than women at every academic rank. These salary differences can be attributed to several factors, including a lower tenure rate for women than men (46 percent versus 69 percent), a scarcity of women in the highest-paying fields and in the highest-paying institutions (independent research universities), and the general concentration of women in the lower academic ranks.

- Salary disparities ranged from 7 percent for instructors to 13.1 percent more for full professors (table 2).
- In 1989, a male professor received on average \$51,150, a female professor \$45,190. Salary differences between the sexes at the upper ranks were greatest at private independent colleges.

#### Race and Ethnicity

As of 1985, minority faculty earned less than whites, on average.

- Whereas 52 percent of whites were earning \$30,000 or more, 50 percent of Hispanics and only 39 percent of blacks did so.
- The one exception to this low rate of minority earning power was Asians, 63 percent of whose salaries were \$30,000 or more (table 3).<sup>4</sup>

Although salary data of minority faculty by rank and tenure status are unavailable, it is clear that salary differences between majority and minority faculty reflect differences in rank and tenure status.

- For instance, while only one-third of white faculty are nontenured, more than half of black faculty have nontenured positions. Hispanics, Asians, and American Indians are also more likely than whites to be untenured.
- Like women, minority faculty are clustered in the lower academic ranks.<sup>5</sup>

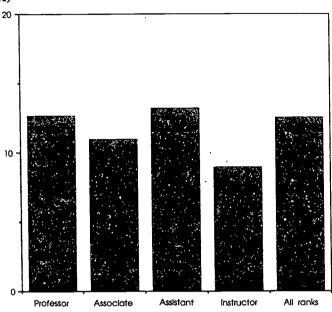
#### Region

Average salaries were highest in the West—Alaska, California, Hawaii, Oregon, and Washington—and lowest



Figure 1
Real Increases in Faculty Salaries,
By Rank, 1978–79 to 1988–89

Percent change, after inflation (1982–84 constant dollars)



Source: American Association of University Professors, 1989

## TABLE 3

## Distribution of Salaries of Full-Time Faculty, By Race/Ethnicity, 1985

Ì	Range	<u> All</u> :	<u>White</u>	<b>Minority</b>	<u>Black</u>	<u>Hispanic</u>	<u>Asian</u>
	<13,000	0.9%	0.9%	0.8%	0.9%	0.8%	0.6%
	13,000-						
	18,999	5.7	5.6	6.3	9.1	5.0	3.5
	19,000-						
	29,999	41.0	40.8	43.1	51.2	44.2	31.4
	30,000+	52.3	52.5	49.8	38.7	49.9	63.1

Note: Columns may not total 100% due to rounding.

Source: Equal Employment Opportunity Commission, unpublished data, 1987.

in the Southeast. Salaries in those western states ranged up to 25 percent higher than in the southeastern states of Alabama, Kentucky, Mississippi, and Tennessee.

## Trends in Faculty Salaries

In looking at how faculty salaries have fared relative to inflation, trends fall into two phases—recent and long-

term. In the last five years, salaries have risen faster than the rate of inflation; there have been real increases in the 1980s. But when compared with the early 1970s, faculty salaries have failed to keep pace.

#### Recent Rate of Growth

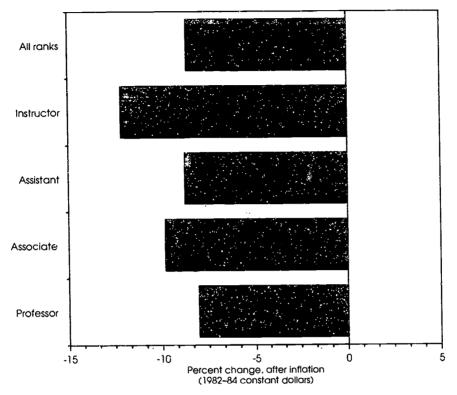
- Between 1987–88 and 1988–89, average faculty salaries increased only slightly above inflation, which ran at 4.4 percent. Salaries rose 5.8 percent in current dollars and 1.3 percent in constant dollars.
- The one-year increase of 1.3 percent was larger than that of the previous year (+0.8 percent), but generally much smaller than those of the last five years.
- Salaries for continuing faculty rose faster—6.8 percent in current dollars and 2.3 percent in constant dollars—than those for new faculty positions. Salaries rose at the same rate in 1988—89 as in 1987—88 but slower than in the preceding five years.

#### **Longer-Term Changes**

• In the last 10 years, average faculty salaries have risen a little more than 12 percent in real terms. Faculty in the lower ranks have received the greatest increases (figure 1).



Figure 2 Change in Faculty Salaries, By Rank, 1971-72 to 1988–89



Source: ACE calculations based on data from the American Association of University Professors, 1989

Figure 3 Changes in Faculty Salaries and CPI, 1971-72 to 1988-89

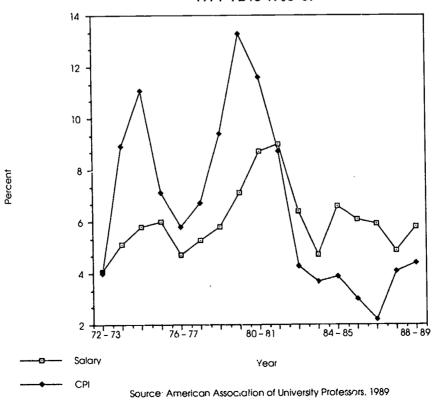
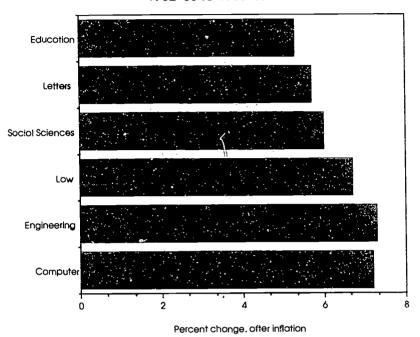


Figure 4
Salary Increases for Selected Disciplines,
1982–83 to 1988–89



Source: Office of Institutional Research, Oklahoma State University, as reported by the American Association of University Professors, 1989

- However, these increases mask the tremendous loss of the faculty's purchasing power in the 1970s.
   Based on an 18-year trend (1972–1989), average faculty salaries have actually declined at rates between 8 and 12 percent (figure 2).
- Throughout the 1970s, faculty salaries did not keep pace with rampant inflation, which ranged as high as 13 percent (figure 3).

#### Salary Changes By Gender and By Discipline

- Salary differences between men and women have widened. Between 1975 and 1988, percentage differences increased at every rank and in every category of institution. In 1975, salary differentials ranged from 4.5 percent to 9 percent according to rank; by 1988, that range had grown from 7 percent to 11 percent.<sup>6</sup>
- Average salary increases of recent years have not been uniform across disciplines. Reflecting a tightening market, average salary increases for full professors in higher-paying disciplines have outpaced those in most other fields (figure 4). Engineering and computer sciences rose close to 7 percent, roughly 1 percentage point more than other disciplines.

## **Academics Versus Other Professionals**

Faculty salaries in some professional disciplines are lower than salaries offered by the profession generally. Overall, however, college faculty appear to have made gains in pay status relative to other professionals in the last five years.

- While in 1988–89, a full professor of law could expect to earn about \$75,000, much more than his peers in liberal arts, a partner in a large private law firm received anywhere from 2 to 14 times as much.<sup>7</sup>
- In 1988, college faculty overall ranked sixth in median weekly earnings of full-time workers in managerial and professional specialty occupations, behind lawyers, engineers, physicians, pharmacists, and advertising and marketing managers.
- Back in 1983, in contrast, college faculty ranked 12th, falling below math, computer and natural scientists, financial, purchasing and marketing managers, and architects, as well as the occupations listed previously.
- In 1987, faculty ranked fifth out of 16 occupations behind physicians, lawyers and judges, administrators in manufacturing and engineers.



# FIGURE 5 Who Are The Faculty?

- 68 percent are male;
- 32 percent are female;
- 7.5 percent are members of minority groups;
  - -2.2 percent are black.
  - —1.7 percent are Hispanic.
  - -2.4 percent are Asian.
  - —Fewer than 1 percent are An erican Indian.
- Estimates of full-time/part-time status vary. Institutions report numbers of part-time faculty as high as one-third; faculty surveys indicate a much lower proportion of part-timers, less than one-tenth.
- Roughly 66 percent of faculty are tenured. Tenure rates are considerably higher for males (71 percent) than for women (56 percent).
- The distribution of faculty by rank is as follows:
  - —37.2 percent are full professors;
  - -24.4 percent are associate professors;
  - -- 16.7 percent are assistant professors;
  - --12.7 percent are instructors;
  - -3 percent are lecturers;
  - —4.4 percent carry no rank.

- The distribution of faculty by fields is as follows:
  - —13.8 percent teach in the humanities;
  - -6.1 percent in education;
  - —13.3 percent in social sciences;
  - -8.3 percent in fine arts;
  - —6.2 percent in physical sciences;
  - —5 percent in biological sciences;
  - --5.4 percent in math or statistics;
  - -4.4 percent in engineering and
  - -8.5 percent in business or related fields.
  - —6.3 percent are in health professions or allied health;
  - —4.7 percent are in communications or journalism;
  - -3.7 percent are in foreign languages and
  - —14.3 percent in other fields.
- Almost three-quarters of faculty are on 9- to 10month salary contracts.
- About 17 percent are under 40; 36 percent are aged 40 to 49; 30 percent are 50 to 59; and 16 percent are 60 or older.

Source: 1989 National Survey of Faculty, Carnegie Foundation for the Advancement of Teaching

## Implication3

The key issues are the erosion of faculty salaries in real terms and the changing distribution of those salaries. Despite the fact that recent salary increases have exceeded inflation, faculty in 1988–89 have yet to regain the purchasing power of the early 1970s. While faculty salaries by rank have been fairly stable in recent years, recent increases in average salaries offered by independent institutions have outpaced those at public institutions. The salary gap between men and women has also widened.

Furthermore, salary differentials among academic disciplines, reflecting the influence of the nonacademic labor market, have increased. The most obvious implication of the changes in salary structure is that they generally tend to compress salaries. Institutions that are forced to offer higher salaries to keep faculty in high-demand fields theoretically have less to allocate to everyone else (Hansen, in Bowen and Schuster 1986).

The implications of the net decline of faculty salaries are profound. Columbia University President Michael Sovern wrote recently that the great st threat to the excellence of higher education lies not in moral or intel-

lectual decay, but in the inability of academe to attract and retain the best and the brightest to its faculty ranks. Data on career choices of undergraduates indicate that "college teaching has lost much of its appeal for young men and women" (Bowen and Schuster 1986).

More and more talented graduates have opted for professional school over graduate work in the arts and sciences. Not only has the pool of potential Ph.D.s been shrinking, but the numbers of those doctorate recipients who enter academe have diminished as well, particularly in scientific and technical areas.

The labor market for college faculty in certain high-demand fields is already tightening. A substantial number of colleges and universities are reporting shortages of faculty in computer science, business, mathematics, and the health professions, and wider shortages are expected over the next five years (El-Khawas 1989). According to a recent study, the problem could become acute in the late 1990s, when faculty retirements and other departures and an expected upturn in enrollments could produce shortages, especially in the humanities and social sciences (Bowen and Sosa 1989).



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#### **END NOTES**

- 1. This figure is taken from a forthcoming survey of the National Center for Education Statistics. It is regarded by some experts as being too high.
- 2. Data reported are for salaries only, not for total compensation of full-time faculty. Except where otherwise noted, the data are taken from "The Annual Report on the Economic Status of the Profession, 1988–89," in the March-April 1989 *Academe*, published by the American Association of University Professors.
- The salary data by discipline cited here are collected by the Office of Institutional Research at Oklahoma State University and reported by AAUP.
- 4. ACE calculations derived from unpublished data of the Equal Employment Opportunity Commission (EEOC).

- 5. EEOC data as reported in Minorities in Higher Education: Seventh Annual Status Report, American Council on Education: Washington, D.C., 1988, pp. 32-35.
- 6. Mary W. Gray, "Academic Women and Salary Differentials," in *Academe*, July-August 1988, pp. 33-34.
- 7. "What Lawyers Earn," The National Law Journal, March 27, 1989.
- 8. Median weekly earnings of wage and salary workers, 1983–1988, unpublished data from the Bureau of Labor Statistics
- 9. Annual earnings data, 1987, unpublished data from the Current Population Survey, Bureau of the Census.

#### **RESOURCES**

- Salary data are collected and published annually by the American Association of University Professors as "The Economic Report on the Status of the Profession" in the journal Academe. The 1988–89 data appear in the March-April 1989 issue. For more information, contact AAUP, 1012 14th St. NW, (202)737-5900.
- Salary and other faculty data are obtained from annual surveys of the Center for Education Statistics through the Integrated Postsecondary Education Data System (IPEDS) and from the National Survey of Postsecondary Faculty. For more information, contact Joanell Porter, Center for Education Statistics, 555 New Jersey Ave. NW, Washington, D.C. 20208-1404, (202)357-6595.
- 3. Demographic and attitudinal data on faculty are available from the 1989 National Survey of Faculty by the Carnegie Foundation for the Advancement of Teaching, which surveyed 5,450 faculty members at 306 two- and four-year institutions in 1989. For more information, contact the Carnegie Foundation, 4 Ivy Lane, Princeton, NJ 08540, (609)452-1780.
- 4. Salary and other faculty data broken down by sex, rank, and race and ethnicity are obtained from "EEO-6 Higher Education Staff Information" surveys of institutions by the U.S. Equal Employment Opportunity Commission. The most recent are reports from 1975, 1983 and 1985. For more information, contact Betty Wright, EEOC Program Research Office, 1801 L St. NW, Washington, D.C., 20507, (202) 663-4954.
- 5. Faculty salary data by discipline are collected by the Oklahoma State University and reported by AAUP. Surveyed are members of the National Association of State Universities and Land-Grant Colleges. The College and University Personnel Association also publishes salary data by discipline in its annual National Faculty Salary Survey by Discipline and Rank in State Colleges and Universities and the companion National Faculty Salary Survey by Discipline and Rank in Private Colleges and Universities. Contact CUPA, 1233

- 20th St. NW, Suite 503, Washington, D.C. 20036, (202)429-0311.
- 6. Average and median annual incomes of civilian workers, including college faculty, are collected in the March Current Population Survey by the Bureau of the Census and reported in the P-60 series, Money Income of Households, Families and Persons in the United States. Census data on median weekly earnings of workers, including college faculty, are reported by the Bureau of Labor Statistics.

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