



Financial Inequality in Higher Education

The Annual Report on the Economic Status of the Profession, 2006–07

Inflation is down, and full-time faculty salaries are finally back up. These would seem to be encouraging signs for the economic status of higher education. Unfortunately, however, one good year cannot reverse discouraging trends that have been developing over decades.

Growing financial inequality in the United States has become a prominent public issue. In February 2007, President Bush publicly acknowledged the growing gap between rich and poor Americans and recommended that firms reconsider the size of the salaries they pay to chief executives.¹ In a fall 2006 speech, Janet Yellen, president of the San Francisco Federal Reserve Bank, said that U.S. income inequality has risen to such a level that “there are signs that [it] is intensifying resistance to globalization, impairing social cohesion, and could, ultimately, undermine American democracy.”²

Financial inequality is growing in U.S. higher education, too. In this report, we observe increasing differences between the endowments of rich and poor institutions, between the salaries of college and university presidents and their faculties, between the salaries of athletic coaches and professors, and between well- and poorly compensated faculty members. This economic inequality has the potential to negatively affect higher education. We will address this potential in the context of this year’s survey findings.

Average Salaries Up

In terms of the average salary for all full-time faculty members, 2006–07 was the best year since 2001–02.³ Overall faculty salaries climbed 3.8 percent compared with the previous year. The inflation rate, as measured by the Consumer Price Index, was 2.5 percent between December 2005 and December 2006, lower than it had been the previous two years. Adjusted for

inflation, then, the average salary rose by 1.3 percent, the first “real” increase in salaries since 2003–04.

Table A provides an overview of this year’s findings, as well as a long-term review of the changes from year to year over the past three decades. The upper half of the table shows the change in both nominal (actual) and inflation-adjusted (real) salaries by rank from one year to the next when all ranked faculty members at all institutions are considered. Among all faculty, the average salaries of full professors rose more than the pay of faculty in other ranks, but all ranks saw real increases of more than 1 percent.

The lower half of the table presents figures for faculty members who remained in full-time positions at the same institutions where they taught the previous year (“continuing” faculty). Increases this year were highest for associate and assistant professors. Because the figures for continuing faculty include raises arising from promotions and other factors, these ranks usually see the steepest increases. Unlike salary increases for all faculty, those for continuing faculty have exceeded the rate of inflation for more than two decades.

A Closer Look

American higher education is characterized by tremendous institutional diversity. The tables and appendices in this report portray some of that diversity by presenting results from multiple institutional categories. Colleges and universities are described in two ways: by category, which refers to the highest degree offered, and by affiliation, which groups institutions according to whether they are public, private-independent (non-church-related), or religiously affiliated. Survey report table 1 presents the percentage change in average salaries among full-time faculty from 2005–06 to 2006–07 for

TABLE A
Percentage Increases in Average Nominal and Real Salaries for Institutions Reporting Comparable Data for Adjacent One-Year Periods, and Percentage Change in the Consumer Price Index, 1971-72 through 2006-07

	Prof.	Assoc.	Asst.	Inst.	All Ranks	Prof.	Assoc.	Asst.	Inst.	All Ranks	Change in CPI
	NOMINAL TERMS					REAL TERMS					
ALL FACULTY											
1971-72 to 1973-74	9.7	9.6	9.1	8.8	9.4	-2.7	-2.8	-3.3	-3.6	-3.0	12.4
1973-74 to 1975-76	12.4	12.1	11.7	12.3	12.1	-7.7	-8.0	-8.4	-7.8	-8.0	20.1
1975-76 to 1977-78	10.1	10.4	10.3	10.4	10.2	-1.8	-1.5	-1.6	-1.5	-1.7	11.9
1977-78 to 1979-80	13.5	13.2	13.1	12.8	13.3	-10.0	-10.3	-10.4	-10.7	-10.2	23.5
1979-80 to 1981-82	18.6	18.1	18.7	17.5	18.5	-3.9	-4.4	-3.8	-5.0	-4.0	22.5
1981-82 to 1983-84	11.2	11.0	11.9	12.1	11.4	3.5	3.3	4.2	4.4	3.7	7.7
1983-84 to 1985-86	13.2	12.7	13.2	12.5	13.1	5.3	4.8	5.3	4.6	5.2	7.9
1985-86 to 1986-87	6.0	5.8	5.7	4.9	5.9	4.9	4.7	4.6	3.8	4.8	1.1
1986-87 to 1987-88	5.0	4.8	4.9	3.8	4.9	0.6	0.4	0.5	-0.6	0.5	4.4
1987-88 to 1988-89	5.8	6.7	6.0	5.3	5.8	1.4	2.3	1.6	0.9	1.4	4.4
1988-89 to 1989-90	6.3	6.3	6.3	5.4	6.1	1.7	1.7	1.7	0.8	1.5	4.6
1989-90 to 1990-91	5.5	5.3	5.5	5.0	5.4	-0.6	-0.8	-0.6	-1.1	-0.7	6.1
1990-91 to 1991-92	3.4	3.5	3.8	3.9	3.5	0.3	0.4	0.7	0.8	0.4	3.1
1991-92 to 1992-93	2.6	2.3	2.6	2.3	2.5	-0.3	-0.6	-0.3	-0.6	-0.4	2.9
1992-93 to 1993-94	3.0	3.1	3.0	3.2	3.0	0.3	0.4	0.3	0.5	0.3	2.7
1993-94 to 1994-95	3.4	3.4	3.2	3.5	3.4	0.7	0.7	0.5	0.8	0.7	2.7
1994-95 to 1995-96	3.1	2.9	2.7	2.6	2.9	0.6	0.4	0.2	0.1	0.4	2.5
1995-96 to 1996-97	2.9	3.0	2.4	3.2	3.0	-0.4	-0.3	-0.9	-0.1	-0.3	3.3
1996-97 to 1997-98	3.6	3.2	2.8	2.6	3.3	1.9	1.5	1.1	0.9	1.6	1.7
1997-98 to 1998-99	4.0	3.6	3.5	2.9	3.6	2.4	2.0	1.9	1.3	2.0	1.6
1998-99 to 1999-00	4.3	4.0	3.9	3.7	3.7	1.6	1.3	1.2	1.0	1.0	2.7
1999-00 to 2000-01	4.4	3.9	4.4	3.6	3.5	1.0	0.5	1.0	0.2	0.1	3.4
2000-01 to 2001-02	4.2	3.8	4.8	4.2	3.8	2.6	2.2	3.2	2.6	2.2	1.6
2001-02 to 2002-03	3.4	3.1	3.8	2.2	3.0	1.0	0.7	1.4	-0.2	0.6	2.4
2002-03 to 2003-04	2.4	2.0	2.3	2.0	2.1	0.5	0.1	0.4	0.1	0.2	1.9
2003-04 to 2004-05	3.4	3.0	3.2	2.7	2.8	0.1	-0.3	-0.1	-0.6	-0.5	3.3
2004-05 to 2005-06	3.7	3.3	3.3	3.2	3.1	0.3	-0.1	-0.1	-0.2	-0.3	3.4
2005-06 to 2006-07	4.2	3.9	4.1	3.9	3.8	1.7	1.4	1.6	1.4	1.3	2.5
CONTINUING FACULTY											
1971-72 to 1973-74	10.4	12.4	12.8	13.7	11.9	-2.0	0.0	0.4	1.3	-0.5	12.4
1973-74 to 1975-76	14.3	15.7	16.5	17.9	15.6	-5.8	-4.4	-3.6	-2.2	-4.5	20.1
1975-76 to 1977-78	12.5	13.2	13.5	13.7	13.0	0.6	1.3	1.6	1.8	1.1	11.9
1977-78 to 1979-80	15.2	16.3	17.4	18.0	16.1	-8.3	-7.2	-6.1	-5.5	-7.4	23.5
1979-80 to 1981-82	19.9	21.0	22.4	22.3	20.9	-2.6	-1.5	-0.1	-0.2	-1.6	22.5
1981-82 to 1983-84	13.3	13.9	15.3	14.7	14.1	5.6	6.2	7.6	7.0	6.4	7.7
1983-84 to 1985-86	14.2	15.1	16.3	16.1	14.9	6.3	7.2	8.4	8.2	7.0	7.9
1985-86 to 1986-87	6.3	6.7	7.0	6.5	6.6	5.2	5.6	5.9	5.4	5.5	1.1
1986-87 to 1987-88	6.1	6.6	7.1	6.9	6.5	1.7	2.2	2.7	2.5	2.1	4.4
1987-88 to 1988-89	6.4	7.1	7.6	7.4	6.8	2.0	2.7	3.2	3.0	2.4	4.4
1988-89 to 1989-90	6.9	7.4	7.8	7.5	7.3	2.3	2.8	3.2	2.9	2.7	4.6
1989-90 to 1990-91	6.1	6.8	7.2	7.0	6.6	0.0	0.7	1.1	0.9	0.5	6.1
1990-91 to 1991-92	3.9	4.5	4.9	5.1	4.3	0.8	1.4	1.8	2.0	1.2	3.1
1991-92 to 1992-93	3.2	3.7	4.2	4.4	3.6	0.3	0.8	1.3	1.5	0.7	2.9
1992-93 to 1993-94	3.8	4.4	4.7	4.5	4.2	1.1	1.7	2.0	1.8	1.5	2.7
1993-94 to 1994-95	4.1	4.7	4.9	4.9	4.6	1.4	2.0	2.2	2.2	1.9	2.7
1994-95 to 1995-96	3.7	4.1	4.5	4.4	4.0	1.2	1.6	2.0	1.9	1.5	2.5
1995-96 to 1996-97	3.0	4.0	4.2	4.6	3.5	-0.3	0.7	0.9	1.3	0.2	3.3
1996-97 to 1997-98	4.0	4.6	4.8	5.0	4.3	2.3	2.9	3.1	3.3	2.6	1.7
1997-98 to 1998-99	4.5	5.0	5.3	5.3	4.8	2.9	3.4	3.7	3.7	3.2	1.6
1998-99 to 1999-00	4.5	4.9	5.4	5.3	4.8	1.8	2.2	2.7	2.6	2.1	2.7
1999-00 to 2000-01	5.0	5.4	5.8	5.8	5.3	1.6	2.0	2.4	2.4	1.9	3.4
2000-01 to 2001-02	4.8	5.1	5.7	5.4	5.0	3.2	3.5	4.1	3.8	3.4	1.6
2001-02 to 2002-03	4.1	4.4	4.7	4.5	4.3	1.7	2.0	2.3	2.1	1.9	2.4
2002-03 to 2003-04	2.8	3.3	3.5	3.8	3.1	0.9	1.4	1.6	1.9	1.2	1.9
2003-04 to 2004-05	4.2	4.7	4.8	4.7	4.5	0.9	1.4	1.5	1.4	1.2	3.3
2004-05 to 2005-06	4.1	4.7	4.8	4.4	4.4	0.7	1.3	1.4	1.0	1.0	3.4
2005-06 to 2006-07	4.7	5.3	5.4	5.1	5.0	2.2	2.8	2.9	2.6	2.5	2.5

Note: Consumer Price Index (CPI) obtained from the U.S. Bureau of Labor Statistics. The change in the CPI for all Urban Consumers, the percentage change that this table reports, is calculated from December to December. Salary increases for the years to 1985-86 are grouped in two-year intervals in order to present the full 1971-72 through current year series. Nominal salary is measured in current dollars. The percentage increase in real terms is the percentage increase in nominal terms adjusted for the percentage change in the CPI. Figures for All Faculty represent changes in salary levels from a given year to the next. Figures for Continuing Faculty represent the average salary change for faculty on staff at the same institution in both years over which the salary change is calculated.

institutions that reported data in both years.

In terms of the change in average salaries, shown on the left-hand side of the table, increases were highest this year at doctoral universities (category I) and associate-degree colleges (categories III and IV). A more significant finding, however, appears in the columns representing institutional affiliation. For the first time in several years, average salaries increased more at public colleges and universities than they did at private-independent or church-related institutions. Although the difference is not large, it probably reflects an effort by public institutions to make up for stagnant salaries over the past several years.

Increases for continuing faculty did not, however, vary much across institutional types. The figures for continuing faculty increases are on the right-hand side of the table. With only a few exceptions, continuing faculty saw average raises of about 5 percent, regardless of where they were employed.

Survey report tables 2 and 3 break down changes in salary by institutional type. Survey report table 2 shows the change in average salary levels, while survey report table 3 describes the average raises received by continuing faculty. The left-hand side of each table presents the distribution in terms of the percentage of institutions, and the right-hand side categorizes the total number of full-time faculty at those institutions.

Survey report table 2 indicates that average salary levels at 61 percent of institutions outpaced the rate of inflation, rising by 3 percent or more. Compared with private colleges and universities, a higher percentage of public institutions

Table B
Market Value of the Ten Largest University Endowments, 2005–06

Rank	Institution	Market Value of Endowment (millions)	Percent Change from Prior Year
1	Harvard University	28,916	13.5
2	Yale University	18,031	18.4
3	Stanford University ^a	14,085	15.4
4	University of Texas	13,235	14.0
5	Princeton University	13,045	16.4
6	Massachusetts Institute of Technology	8,368	24.7
7	Columbia University	5,938	14.4
8	University of California	5,734	9.8
9	University of Michigan	5,652	14.6
10	Texas A&M University and Foundation	5,643	13.7

Note: The market value is as of June 30, 2006.
Source: National Association of College and University Business Officers, 2006 Endowment Study.
a. Market value as of August 31, 2006.

had average salary levels that outpaced the inflation rate, and a greater percentage of public colleges and universities were in the highest category of increase—those where average salary levels rose by 6 percent or more. But the news wasn't all good for public institutions. Average salary levels decreased at nearly 8 percent of colleges and universities, and public institutions were more likely to fall into this group as well. (Decreases in the overall average salary for a particular college or university usually indicate a substantial shift from senior to more junior faculty, often as older faculty retire.)

In terms of the number of faculty members affected by changes in salary levels, two-thirds worked at

institutions reporting that average salary levels rose by at least 3 percent over the previous year. Again, compared with faculty at private institutions, a larger percentage of public college and university faculty members were employed at institutions that saw that level of increase.

Average raises for continuing faculty were even more concentrated at the higher levels. Nearly half of the institutions represented in survey report table 3 conferred average raises of 5 percent or more for continuing faculty, and nearly 90 percent of institutions reported average increases exceeding the rate of inflation. Notably, however, a greater percentage of private-independent institutions reported

average raises for continuing faculty at the highest levels compared with public and religiously affiliated colleges and universities.

When counting faculty members in table 3, however, a higher percentage of those working at public colleges and universities received raises at the highest levels (6 percent or more) compared with those at private institutions. That is because public colleges and universities tend to be larger than private institutions in the same category.

Endowments

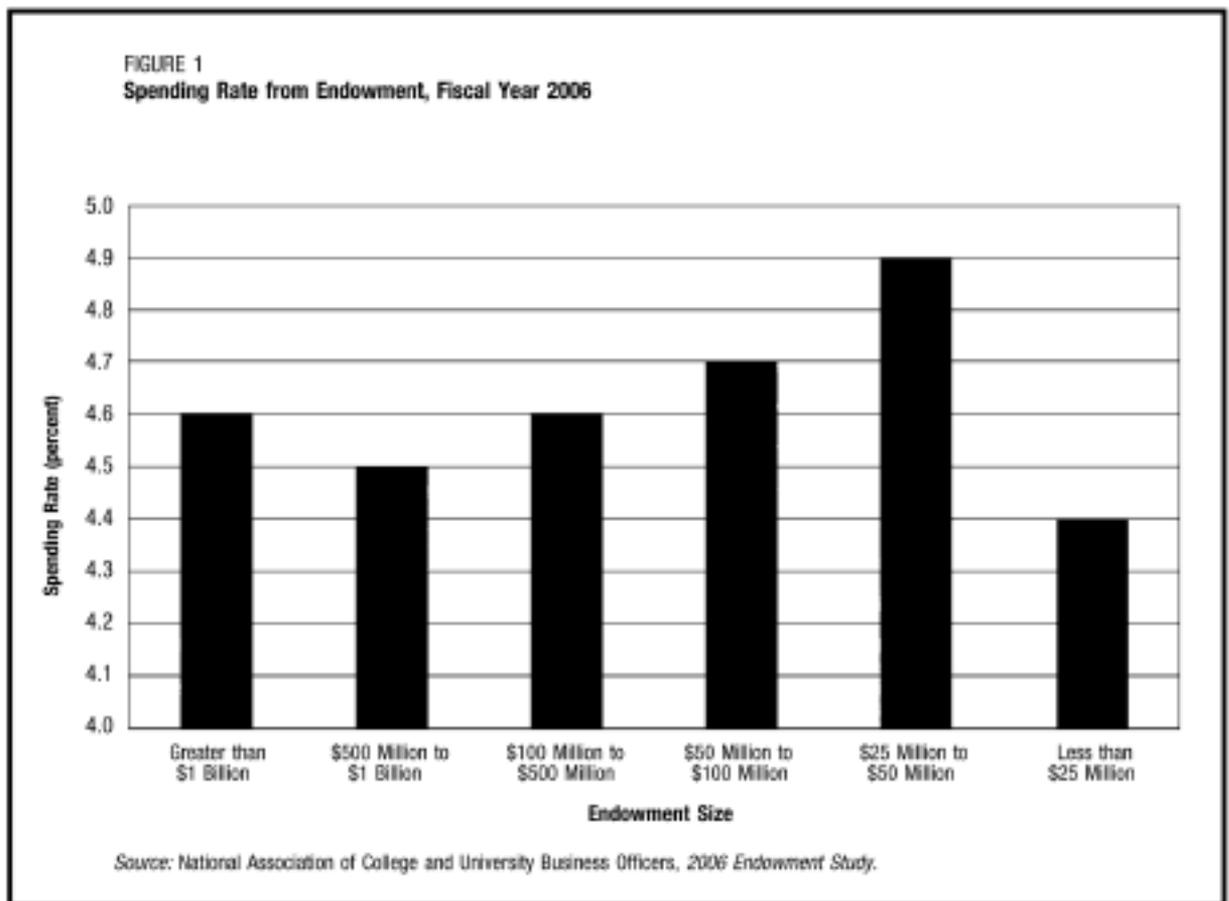
Institutions increasingly rely on returns on their endowment investments to finance faculty salaries, facilities maintenance, educational technology, and other operating

costs. Investment income can make a significant difference in the funds available to an institution. Private colleges and universities have long depended on it, and public universities have undertaken major capital campaigns over the past decade to make up for decreases in state appropriations. Twenty-four universities are now engaged in capital campaigns of at least \$1 billion.⁴

Data collected from the 765 institutions that participated in the *2006 Endowment Study* conducted by the National Association of College and University Business Officers suggest that colleges and universities have used an average of 4.5 to 5.1 percent of their total endowment assets over the past ten years to finance annual expendi-

tures.⁵ This percentage is referred to as the institution's "spending rate." Remarkably, as figure 1 illustrates, even though the market value of endowments varies dramatically across institutions, spending rates diverge by only a few tenths of a percent. Together, the institutional participants in the study had a total of more than \$340 billion in endowment assets. Given an average spending rate of 4.6 percent, endowment assets contributed \$15.6 billion toward their expenditures for the fiscal year that ended June 30, 2006.

The amount of revenue that a particular college or university gains from its endowment income varies dramatically between institutions with large endowments and those



with smaller ones. Table B depicts the market value of the ten largest university endowments on June 30, 2006.⁶ According to the *2006 Endowment Study*, the sixty-two institutional respondents that had endowment assets of \$1 billion or more represented only 8.1 percent of the colleges and universities participating in the survey. Yet those sixty-two institutions owned 67.4 percent of all endowment assets. Institutions that had endowments of \$100 million or less represented more than half of the responding institutions but owned just 5 percent of total endowment assets.

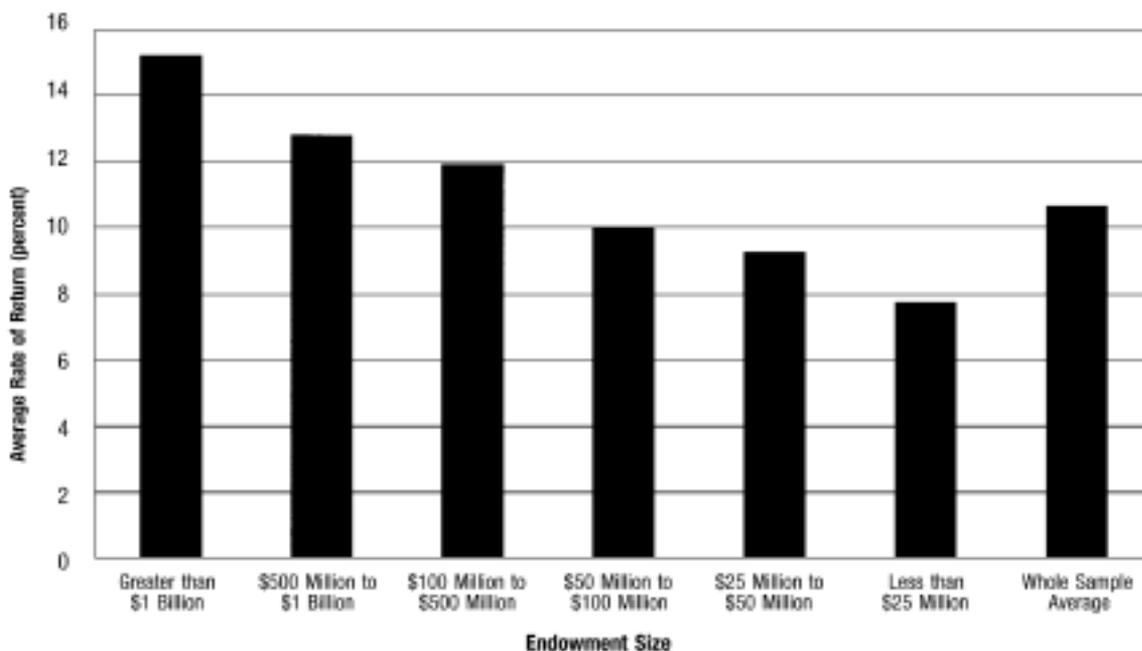
Drawing on data from figure 1 and the *2006 Endowment Study*, we can estimate the amount of

funds available to institutions from their endowments. With an endowment of \$28.9 billion and a spending rate of approximately 4.6 percent, Harvard University had about \$1.3 billion in revenue available to flow into its operating budget in fiscal 2006. These funds could help provide the highest-quality learning facilities and offer faculty salaries that enable the university to recruit the most talented faculty away from other positions in academe, government, or the private sector. By contrast, Mount Ida College of Massachusetts reported an endowment of \$8.7 million. Assuming a spending rate of 4.4 percent, that yields about \$383,900 in funds to finance its educational programs in fiscal

2006, approximately 0.03 percent of what Harvard had to spend.

Large endowments also make possible investment opportunities that enable endowments to grow. According to the *2006 Endowment Study*, institutions that had endowments of more than \$1 billion invested an average of 36 percent of their endowments in “alternative assets,” such as hedge funds, which are more risky than other assets but potentially produce higher yields. By contrast, institutions that had endowments of less than \$100 million invested an average of less than 10 percent of their endowments in alternative assets. They favored traditional stock and bond assets, which are less risky but also yield lower rates

FIGURE 2
Average One-Year Rate of Return from Endowment Investment, Fiscal Year 2006



Source: National Association of College and University Business Officers, *2006 Endowment Study*.

of return. As figure 2 shows, institutional respondents to the *2006 Endowment Study* that had the largest endowments enjoyed an average one-year rate of return of 15.7 percent, nearly double the 7.8 percent average return rate for the institutions that had the smallest endowment. This substantial difference in investment returns suggests that the gap in institutional wealth among colleges and universities is likely to grow larger.

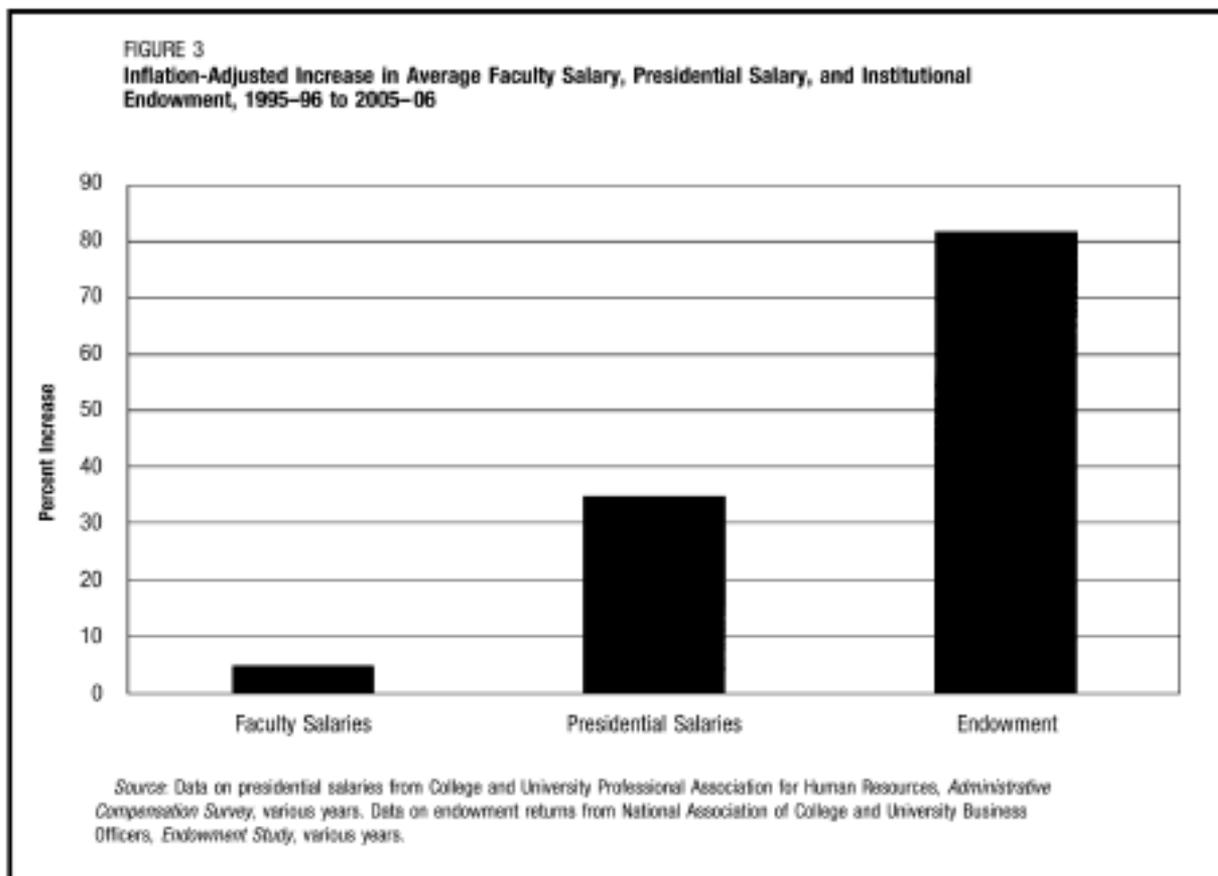
For decades, U.S. higher education has been a ticket to a more prosperous lifestyle for millions of American and international students. But in the knowledge-based economy in which we now operate, education also contributes to income inequality. Differences in the size and income of college and

university endowments are worrisome because they yield significant differences in the amount of resources individual institutions have available to build top-notch educational facilities and offer salaries and benefits that allow them to recruit and retain the most talented faculty. We in the higher education community need to ask how the growing endowment gap will affect the desirability of an academic career at less well-funded institutions and how, in turn, that will affect the quality of education available to students and income inequality among them.

Presidential Salaries

Compensation for chief executives is another area in which academe mimics the broader economy. In

1965, the average corporate chief executive officer earned twenty-four times as much as the average worker.⁷ By 2005, average CEO pay was 262 times the pay of an average worker. During the past decade, chief executives of colleges and universities have also experienced extraordinary increases in their compensation. As Figure 3 illustrates, the inflation-adjusted salaries of chief executives in higher education increased by more than 35 percent from 1995–96 to 2005–06, while the inflation-adjusted salaries of faculty members increased a mere 5 percent. Inflation-adjusted endowments grew an average of 82 percent during that time. These figures raise a question of priorities: if institutional endowment funds and pre-



sidential compensation grew at substantial rates, why should faculty compensation remain so depressed?

In its 2006 survey of executive compensation, the *Chronicle of Higher Education* reported that 112 of the 853 chief executives surveyed had compensation packages totaling at least \$500,000.⁸ In 1996, only one president received a compensation package in excess of \$500,000.⁹ Five chief executives currently receive more than \$1 million in compensation.

Data from the AAUP survey, presented in survey report table 15, provide another indicator of the salaries of presidents relative to those of faculty. This comparison is important, because presidents are more commonly compared to corporate CEOs. Such a comparison is inappropriate, however, as nearly all colleges and universities are still not-for-profit enterprises providing a benefit for society as a whole—not just for shareholders. The table shows a ratio of presidential salary to the average salary for a full professor on that campus. The ratio for 2006–07 ranges from 1.24 at one private baccalaureate college to 6.82 at one private master’s degree university. The median figures, representing the middle of the range from high to low in each category, indicate that most presidents earn three times the salaries paid to their senior faculty members. Why are these trends in executive compensation problematic?

Individuals who possess the motivation and the talent to obtain terminal degrees in their disciplines also have the ability to take highly paid positions in the corporate sector. When a professor decides to forsake a higher salary in private industry for the less tangible

rewards of educating generations of students, he or she provides a public service. College and university presidents are also engaged in public service. Among other leadership duties, they serve as role models for faculty, staff, and students at their institutions. In years when budgets are tight, presidents should lead by example and neither seek nor accept annual salary increases in excess of those awarded to other employees. Likewise, when the financial environment improves, the generous compensation packages necessary to recruit and retain the most highly qualified chief executives should also be extended to the faculties they lead.

Some observers justify offering chief executives compensation in excess of that awarded to faculty by noting that the total cost to the university is relatively small when the CEO is highly compensated. A 10 percent pay increase for a university president earning \$500,000 requires just \$50,000 in additional spending in the following year. A 10 percent salary increase for five hundred faculty members earning the 2006–07 average salary of \$73,207 (see survey report table 4) would create \$3,660,334 in additional expenditures. Even a 1 percent faculty salary increase (\$732 for each person in this example) would require \$366,033 in additional spending. It is often argued that when tight budgets permit only such a minimal increase—which faculty would not miss, it is said—it is much better, in terms of recruitment, retention, and morale, to give a few large salary increases to senior administrators instead.

This argument is wrong for many reasons. Although an additional \$732 in pretax income may not be sufficient to finance a family

vacation, pay for new living-room furniture, or replace a twelve-year-old roof, it is not an insignificant amount. For this author and her children, that \$732 would buy take-out pizza two nights a month—twenty-four nights a year of not having to cook dinner. It would also finance numerous other things that would make a professor’s life easier and more enjoyable: help with housekeeping or clothes for a child or for oneself. Moreover, a single percentage point salary increase for an average assistant professor (see survey report table 4) earning \$58,662 in 2006–07 would yield an additional \$17,599 in pretax income over a thirty-year career, even before compounding through annual percentage salary increases. Invested tax free in a 403(b) retirement plan, that “negligible raise” would ultimately yield hundreds of thousands of dollars.

Salaries of Coaches

The January 2007 announcement that Nick Saban, head coach of the Miami Dolphins professional football team, would leave his position to coach at the University of Alabama rolled through academe like a tidal surge. Saban’s eight-year contract guarantees him \$32 million plus the opportunity to earn an additional \$700,000 to \$800,000 annually in bowl-game bonuses. James Duderstadt, former president of the University of Michigan and a member of the U.S. Secretary of Education’s Commission on the Future of Higher Education, echoed the sentiments of many when he noted that the decision by a university that ranks near the bottom of state spending on higher education to pay its head football coach \$4 million a year sends the wrong

Table C
**Compensation for Full Professors, University Presidents, and Head Football Coaches at
 NCAA Division I-A Universities**

	Average	High	Low	Sample Size
Salary, Full Professor ^a	\$101,774	\$136,374 (Duke Univ.)	\$63,030 (Marshall Univ.)	104
Compensation, University President ^b	\$416,719	\$768,480 (Univ. of Southern California)	\$228,442 (Univ. of Memphis)	92
Compensation, Head Football Coach ^c	\$918,238	\$3,450,000 (Univ. of Oklahoma)	\$130,000 (Univ. of Louisiana-Monroe)	107
Compensation Ratio: Head Football Coach to Full Professor	9.4	36.2 (Univ. of Oklahoma)	1.5 (Miami Univ. of Ohio)	104
Compensation Ratio: Head Football Coach to President	2.4	11.1 (Univ. of Oklahoma)	0.3 (Miami Univ. of Ohio)	92

a. AAUP, Faculty Compensation Survey, 2005–06, unpublished data. Weighted average for full-time instructional faculty outside the medical school.

b. "Executives' Compensation," *Chronicle of Higher Education*. Available at <http://chronicle.com/stats/950>. Data for ten university presidents' compensation for 2006–07. Data for eleven university presidents' compensation for 2004–05.

c. Jodi Upton, "Saban's Contract Could Bring Congressional Inquiry," *USA Today*, January 4, 2007. Available at http://www.usatoday.com/sports/college/football/sec/2007-01-03-saban-contract_x.htm. *USA Today* obtained a contract or other official documentation for 107 out of 119 NCAA Division I-A football coaches. Includes salary plus "other income." Does not include bonuses awarded for attaining particular benchmarks (for example, winning a bowl game).

message about priorities. According to the National Association of State Student Grant and Aid Programs, the state of Alabama's entire budget for need-based financial aid was just \$3.35 million in 2004–05.¹⁰

Some people justify huge salaries for superstar coaches by arguing that high-profile coaches produce winning seasons that result in additional alumni giving or net profits in the athletic budget. Theoretically, these additional revenues can then be used to support the academic mission of a university. In their 2001 book, *The Game of Life: College Sports and Educational Values*, higher education scholars James Shulman and William Bowen cite data from different sources to debunk these myths. Surprisingly, they find a correlation between winning and alumni giving only at co-ed liberal arts colleges. But these institutions rarely pay even six figure salaries to their athletic coaches.

Shulman and Bowen also report that athletic revenue (including

gate receipts, revenue from bowl games, and television contracts) typically falls short of expenditures. They estimate the annual net cost of a National Collegiate Athletic Association (NCAA) Division I-A athletic program in the late 1990s to have been in the \$7 to \$8 million range. In *2002–03 Revenues and Expenses of Divisions I and II Intercollegiate Athletics Programs*, the NCAA states that only 40 percent of Division I-A universities reported profits in their athletic programs. The other 60 percent ran average deficits of \$4.4 million. And no more than 11 percent of colleges and universities in other NCAA divisions reported a profit from their athletic programs.

Table C compares recent compensation provided to coaches at universities with Division I-A athletic programs to that of full professors and university presidents. Because the data vary considerably, the table presents averages, highs, and lows. Salary for full professors ranged from \$63,030 at Marshall

University to \$136,374 at Duke University; the weighted average for the sample was \$101,744. University presidents earned \$416,719 on average, with the highest compensation going to the president of the University of Southern California and the lowest to the president of the University of Memphis.

Coaches' compensation (excluding bonuses but including salary plus "other income") averaged just under \$1 million, with substantial variation between the highest- (University of Oklahoma) and the lowest-paid football coach (University of Louisiana-Monroe).

If paychecks reflect the value of an individual to the university and its core educational mission, then Division I-A head football coaches are, on average, 9.4 times more valuable than their full professor colleagues. By this metric, the head football coach at the University of Oklahoma is 36 times more valuable than an average full professor at his university. The data suggest that even university presidents are

less valuable to these institutions than football coaches. On average, coaches earned more than twice as much as their institution's chief executive officer. While Miami University of Ohio appears to place a greater premium on the skills of its chief executive than on its head football coach, the University of Oklahoma apparently values its football coach eleven times as much as its president.

We might ask what message universities send to alumni, taxpayers, students, faculty, and staff when they pay such exorbitant salaries to their coaches. The U.S. House Ways and Means Committee has reportedly asked the NCAA to explain why coaches are paid so much and whether athletic departments with millions of dollars in revenue deserve tax-exempt status.¹¹ Perhaps

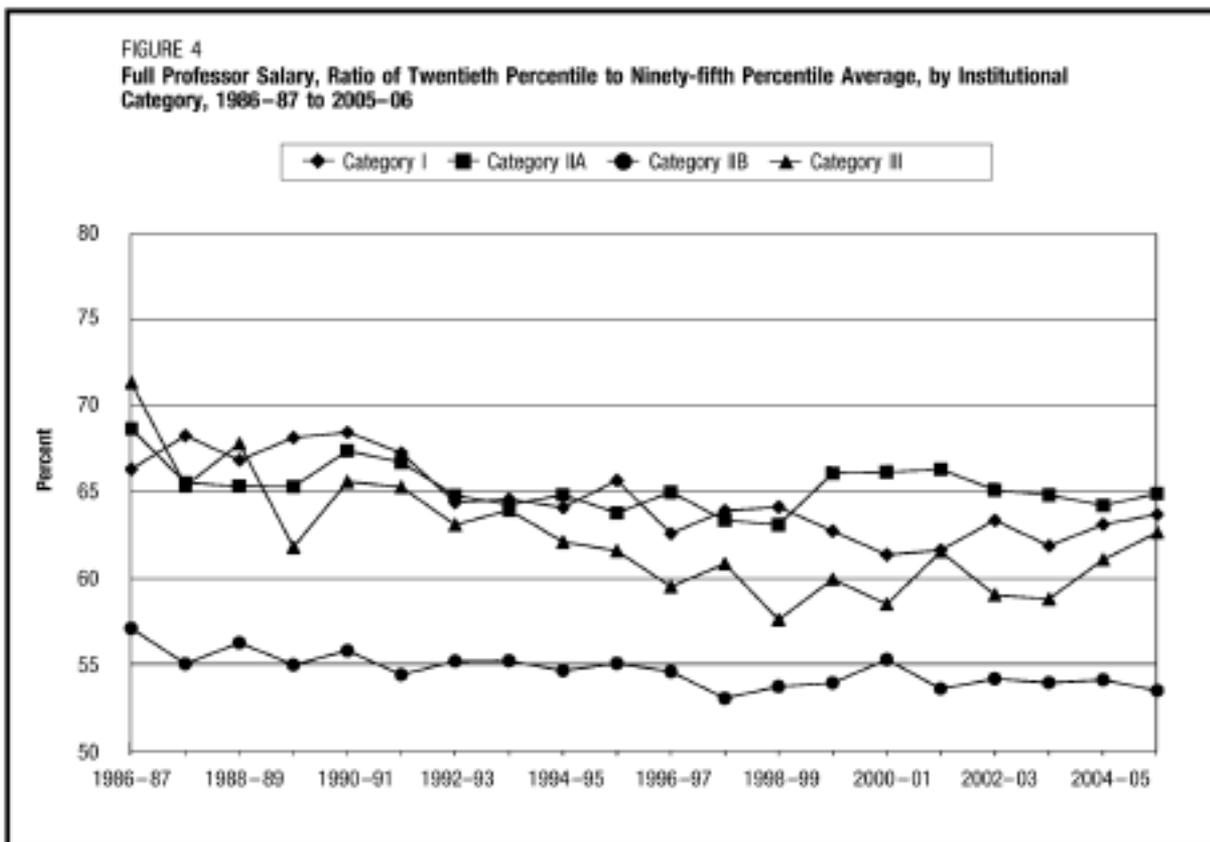
these congressional hearings will inspire university administrators and governing boards to rethink who is contributing to their core educational missions and reward the people who are teaching the students a bit more appropriately.

Inequality Among Faculty

Income inequality in the broader U.S. economy far exceeds that observed among higher education faculty. In 2005, the income of households at the twentieth percentile among all American households was just 11.6 percent of the household income at the ninety-fifth percentile.¹² Thus a household at the twentieth percentile took in total income that was only about one-tenth as much as that available to a household at the ninety-fifth percentile.

Figure 4 shows an equivalent measure of inequality in the average salaries of full professors, comparing the average at the twentieth percentile to that at the ninety-fifth percentile by institutional type. The closer the average at the twentieth percentile is to 100 percent of the ninety-fifth percentile figure, the smaller the amount of income inequality. As salary differences increase between the least- and best-paid faculty members, some qualified academics will probably leave academe or choose private-sector jobs in the first place. This phenomenon would directly affect the quality of higher education in the United States.

Although income differences among professors are smaller than those among American workers overall, professorial income has



varied substantially by institutional type in recent decades. As figure 4 illustrates, full professors at the twentieth percentile in 2005–06 received between 54 and 65 percent of the salary received by full professors at the ninety-fifth percentile. The ratio was smallest at baccalaureate colleges (category IIB) and highest at master’s universities (category IIA). As the downward slope in most of the trend lines demonstrates, the differential in compensation among full professors grew during the last twenty years. Community colleges with academic ranks (category III), which exhibited the least variation in 1986–87, showed greater income differences by 2005–06 than either doctoral (category I) or master’s universities.

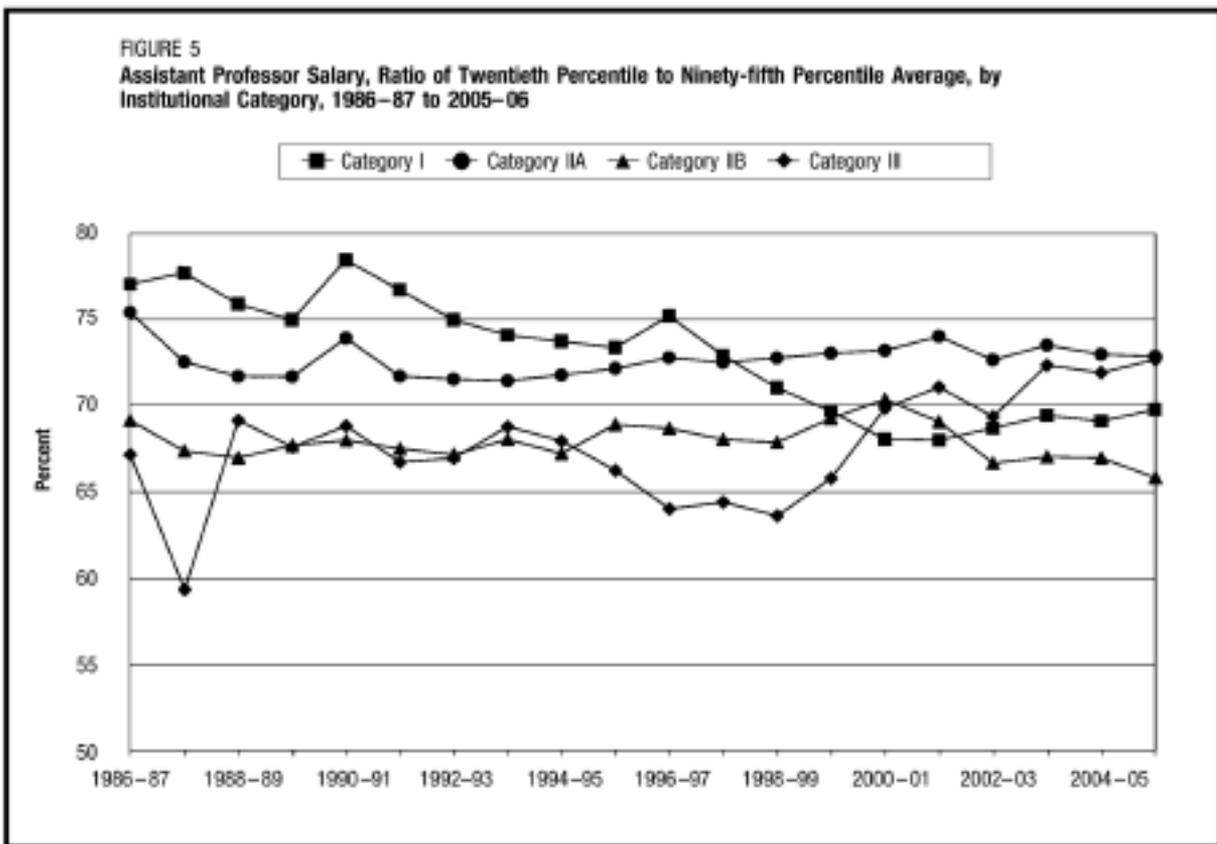
Figure 5 compares assistant professor salaries by institutional type.

As the figure illustrates, assistant professors experienced slightly less variation in income by institution in 2005–06 than full professors did. Assistant professors at the twentieth percentile received between 66 and 73 percent of the average salary of assistant professors at the ninety-fifth percentile. The fact that assistant professors are more mobile than their senior colleagues may partly explain the smaller range in assistant professor salaries. Colleges and universities must keep salaries for junior faculty competitive or risk losing them to better-paying institutions. Typically, there are more junior- than senior-level job openings, which also enhances the mobility of junior faculty. Senior faculty may also have deeper roots in their communities, thus increasing the nonmonetary costs of mov-

ing. Given such differences in the academic job markets for junior and senior faculty, even institutions under budgetary pressure would feel obliged to pay competitive salaries to recruit and retain junior faculty. The limited mobility of senior professors can lead to salary compression—which occurs when experienced faculty are paid only slightly more than their junior colleagues—and may also result in larger salary variation between more wealthy and less wealthy institutions.

The smaller range in assistant professor salaries may also arise because faculty members just beginning their careers may resemble one another in their demonstrated research and teaching skills to a greater degree than they will later in their careers. Certainly, the dif-

FIGURE 5
Assistant Professor Salary, Ratio of Twentieth Percentile to Ninety-fifth Percentile Average, by Institutional Category, 1986–87 to 2005–06



ference in scholarly production between the most- and the least-published full professors exceeds that between the most- and least-published assistant professors. Differences in teaching ability may also be more marked at senior levels. These larger skill differentials could contribute to the larger variation in salaries at the full professor level.

The range of salary variation among assistant professors expanded slightly over the past two decades. Among assistant professors at community colleges, however, the distance between high and low salaries actually declined. In 1986–87, assistant professors at the twentieth percentile at community colleges earned 67 percent as much as assistant professors at the ninety-fifth percentile. By 2005–06, however, assistant professors at the twentieth percentile at community colleges earned almost 73 percent as much as those at the ninety-fifth percentile.

It is possible that faculty have not experienced income inequality to the same degree as the average American partly because professors are highly educated. Still, income inequality is a matter of concern in higher education, especially insofar as it decreases faculty members' recognition of their shared professional interests.

Disciplinary Differences

Over the past twenty years, the AAUP has periodically analyzed differences in faculty salaries by discipline. To do so, the Association has drawn on data from an annual survey of faculty salaries conducted since 1974 by the Office of Institutional Research at Oklahoma State University. Most of the institutions included in the

sample belong to the National Association of State Universities and Land Grant Colleges; many are the “flagship” doctoral-granting universities of their states. Although the sample is only a subset of the universities included in the AAUP’s sample of doctoral-granting universities—primarily larger public universities—the consistent membership of the Oklahoma State group facilitates analysis over time.

Table D shows average disciplinary salaries for full professors at intervals from 1985–86 to 2005–06. Table E presents average disciplinary salaries for assistant profes-

sors over the same intervals. For convenience, salaries in the sixteen disciplines included and the all-discipline average are computed as a percentage of salaries in English language and literature.

Little research has been done to quantify the factors that cause disciplinary differences in salaries. Sociologist Marcia Bellas, however, examined the effects of numerous variables on differences in average entry-level salaries for 1988–89 for full-time assistant professors in sixteen different disciplines.¹³ Variables that affected salary differentials included unemployment rates

Table D
Average Salaries of Full Professors,
by Discipline, as a Percentage of the Average
Salaries of Full Professors of English Language and
Literature, 1985–86 to 2005–06

Discipline	1985–86 (N=76)	1991–92 (N=78)	1996–97 (N=84)	2001–02 (N=95)	2005–06 (N=100)
Business Administration and Management	115.2	133.8	138.7	140.8	146.5
Communications	93.3	102.6	101.9	97.1	96.7
Computer and Information Sciences	117.6	132.2	128.1	128.7	127.5
Economics	111.3	128.4	125.7	126.4	132.4
Education	92.0	98.8	99.2	97.5	96.2
Engineering	114.3	129.0	127.8	124.0	124.3
Fine Arts: Visual and Performing	90.4	92.1	90.3	88.9	124.3
Foreign Language and Literature	96.2	98.5	100.5	96.1	95.5
Health Professions and Related Sciences	119.8	134.3	136.4	131.3	118.1
Law and Legal Studies	141.0	154.2	158.4	153.5	154.0
Library Science	99.4	109.9	106.6	103.5	97.9
Mathematics	104.4	111.0	111.5	106.8	106.8
Philosophy	95.2	102.0	101.1	97.1	100.0
Physical Sciences	108.0	114.9	114.5	112.8	112.1
Psychology	101.6	109.5	109.7	108.3	109.0
Social Sciences	103.2	109.0	108.7	109.2	114.1
All Discipline Average	105.1	113.3	113.9	112.2	112.0

Source: Faculty Salary Survey by Discipline, Office of Institutional Research and Information Management, Oklahoma State University, various years.

within specific disciplines, the percentage of qualified individuals in a field who were in nonacademic jobs, the median nonacademic wage in a field, productivity (as measured by publications and grant support), the percentage of faculty holding a PhD, and the percentage of women faculty within a discipline. Bellas found that lower-paying disciplines tended to have more unemployment, lower median wages in nonacademic jobs, fewer terminal degree recipients employed outside of academe, and relatively higher concentrations of women.

The Oklahoma State data show that salary differences among full professors in many disciplines tended to peak in the early to mid-1990s and then fall somewhat. That happened in communications, computer science, engineering, health sciences, law, mathematics, physical sciences, and the all-discipline average. Different causal factors appear to be important in different disciplines. In health sciences, colleges and universities have added degree programs (and faculty) to prepare students for occupations, such as respiratory therapist and physician assistant, that pay less

than the medical specialties that dominated this field two decades ago. In computer science, the decline in relative faculty salaries probably reflects weakness in private-sector demand for computer professionals following the “dot-com bust.” Private-sector salaries may also be falling because of the outsourcing of jobs in software engineering. Similarly, increased use of low-paid postdoctoral fellows in the physical sciences may be responsible for inhibiting salary growth in those fields.

Faculty in business administration and law had the largest salary differentials relative to English faculty in 2005–06. Full professors in business earned 47 percent more on average than their English faculty colleagues, while full professors of law earned 54 percent more. Business faculty, unlike their colleagues in law, have enjoyed a continually larger salary differential compared with English faculty over the past twenty years. Their experience likely mirrors the growing income inequality in the overall economy, where the salaries of workers at the ninety-fifth percentile increased much more rapidly than those of other groups. As the salaries of corporate executives continue to rise at a rapid clip, universities must pay higher salaries to recruit and retain business school faculty. The current state of the U.S. and global economy makes a reversal of this trend seem unlikely. The salary differential in the social sciences relative to English also increased steadily during the past twenty years, although not as much as in business. No doubt this growth arises at least partly from rapidly increasing salaries for economics professors.

Table E
Average Salaries of Assistant Professors,
by Discipline, as a Percentage of the Average
Salaries of Assistant Professors of English Language
and Literature, 1985–86 to 2005–06

Discipline	1985–86 (N=76)	1991–92 (N=78)	1996–97 (N=84)	2001–02 (N=95)	2005–06 (N=100)
Business Administration and Management	148.5	169.4	166.4	189.8	201.9
Communications	109.0	109.0	104.6	105.5	104.8
Computer and Information Sciences	149.8	148.2	143.8	161.6	159.5
Economics	124.8	132.8	131.0	140.8	151.4
Education	105.3	105.4	102.6	104.9	104.3
Engineering	144.0	144.9	136.5	142.6	144.2
Fine Arts: Visual and Performing	98.9	97.0	93.7	95.4	96.4
Foreign Language and Literature	101.3	101.0	97.4	98.3	98.5
Health Professions and Related Sciences	133.5	146.2	148.8	154.9	139.4
Law and Legal Studies	164.6	179.2	173.9	165.5	165.9
Library Science	108.9	112.1	105.5	113.0	109.1
Mathematics	113.0	116.1	112.3	114.7	116.2
Philosophy	98.7	99.7	95.8	95.3	97.7
Physical Sciences	116.6	117.2	113.8	117.5	118.4
Psychology	103.5	109.1	107.3	109.7	110.0
Social Sciences	108.2	109.5	107.0	110.2	118.0
All Discipline Average	119.8	123.4	120.4	125.1	125.5

Source: Faculty Salary Survey by Discipline. Office of Institutional Research and Information Management, Oklahoma State University, various years.

The salary differentials between the higher-paying disciplines and English are larger at the assistant professor level than at the full professor level, probably because of greater outside economic opportunities for junior faculty in these disciplines compared with senior faculty. A new PhD recipient in finance who can move with ease from an academic position to a corporate job requires more inducement to stay put than a finance professor who has spent most of his or her career in academe. Compared with salaries in English, salaries for assistant professors in communications, engineering, the health professions, and law appear to have peaked in the 1990s. Over the past several years, the salary differential between English and these disciplines has grown smaller. The best-paid disciplines for assistant professors are business (101.9 percent more than English), computer science (59.5 percent more), and law (65.9 percent more).

Observers of higher education over the past two decades have worried that widening salary differentials across disciplines would damage the cooperative relationship among faculty that sustains effective shared governance. Although some of the disciplinary differentials that emerged and grew during the 1980s have diminished, others, particularly in business, have grown and will probably continue to do so.

In its *Statement on Government of Colleges and Universities*, the AAUP maintains that “[t]he faculty should actively participate in the determination of policies and procedures governing salary increases,” as part of its role in a system of shared governance. The faculty role in financial decision making includes participation

in determining both individual salaries and institutional priorities. In American society, talking about individual salaries and income inequality has sometimes been considered impolite. As we have argued in this report, however, it is a subject that we must discuss openly and frankly, because financial inequality has significant implications for the quality of higher education. We hope that this report provides a substantive basis for such discussion. ☞

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Hampden-Sydney College, and
Chair, Committee on the Economic
Status of the Profession

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