

Faculty Salaries: 2008–2009

By Suzanne B. Clery and Barry L. Christopher

Suzanne B. Clery is a senior research associate at JBL Associates, Inc., a consulting firm located in Bethesda, Maryland, specializing in postsecondary education policy issues. Ms. Clery has worked extensively with higher education data and issues for nearly two decades. Her statistical analyses and reports include institutional finance, salary, compensation, and pay equity studies for the National Education Association, the U.S. Department of Education, the Massachusetts State College Association, the Washington State Higher Education Coordinating Board, the American Association of State Colleges and Universities, and individual institutions.

Barry L. Christopher is a research associate at JBL Associates, Inc. During the 20 years that he has worked in the higher education sector, he has assisted in planning and implementing research projects, and in writing reports and data analyses for the National Education Association, the National Center for Education Statistics, and the Career College Association.

The national average salary in 2008–09 for full-time faculty members across all institutions and disciplines on 9/10-month contracts was \$73,567, up 3.4 percent from 2007–08 (Table 1)—3.2 percent in public institutions and 3.9 percent in independent institutions (Table 7). Faculty purchasing power—the amount of goods and services that can be bought per dollar—exceeded the prior peak by 5.9 percent (1972–73), when the average faculty salary in constant 2008–09 dollars was \$69,450.

Purchasing power has exceeded the 1972–73 peak since 1997–98. But the decline in the purchasing power of lecturers and faculty with no rank over the past four decades tempers this good news. The salary advantage received for

teaching in the higher ranks grew over the past three decades. The gap between constant-dollar salaries paid to full professors and assistant professors decreased through the 1970s from nearly \$36,000 to about \$29,000 in 1980. But this gap grew again through the 1980s and 1990s, and currently hovers at around \$40,000.

Some additional highlights:

- Among public four-year institutions, New Jersey faculty members on 9/10-month contracts received the highest average salaries in 2008–09 (\$94,427, Table 6). California faculty members received the highest pay among public two-year institutions (\$81,765). Among independent institutions, faculty members in Massachusetts—the perennial

leaders—received the highest average salaries (\$99,415).

- The average salary gap between public and independent institutions increased slightly to 11 percent (\$7,954) during 2008–09 (derived from Table 2).
- In public institutions, the gender wage gap continued, and increased 3.3 percent, between 2007–08 and 2008–09. The differential between men’s and women’s salaries in 2008–09 was 20 percent (Table 4). The gender wage gap increased 3.7 percent in independent institutions over the last year.
- The share of positions held by women in the ranks of instructor and lecturer has remained steady over the past 10 years—59 percent for instructors and 56 percent for lecturers. In 2008–09, women’s share of positions in the upper ranks continued to remain lower than men’s: women accounted for 32 percent of professors and 43 percent of associate professors. But these proportions increased from 23 and 37 percent, respectively, in the past decade (Table 5).
- Faculty members in land grant institutions earned an average of \$90,368 in 2008–09—among the highest salaries paid to public sector faculty members. Law and legal studies faculty retained their perennial salary lead by discipline, averaging \$141,512 (Table 9). Business, management, and marketing faculty members had the highest average salary (\$92,607) in public four-year institutions where law and medical programs were excluded. Faculty members in engineering followed closely (\$90,109, Table 10).
- Faculty members at institutions with bargaining agreements averaged \$72,959—\$2,938 more than the \$70,021 earned by their colleagues at non-bargaining institutions (Table 11).
- President Obama challenged the country to add five million new associate’s degrees and certificates by 2020, and to achieve the highest proportion of college graduates in

the world. Attaining these goals requires an estimated 36,000 to 42,000 additional community college faculty members per year, and 192,000 extra faculty in four-year institutions by 2020.

OVERVIEW

This report of faculty salaries relied on three data sources:

- *The National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS) Salary Survey.* NCES, a division of the U.S. Department of Education, collected 2008–09 salary data from 4,406 degree-granting colleges and universities as part of the annual IPEDS data collection for higher education institutions. IPEDS excludes part-time faculty, faculty members paid by a religious order, and non-teaching faculty members. The 2008–09 NEA analysis also excluded 1,393 seminaries, religious training institutions, and for-profit colleges, leaving 3,013 institutions and 552,457 full-time faculty members. We used an early release version of the data, so the results may differ from those reported by the U.S. Department of Education at a later time. IPEDS data included separate reports for faculty members on 9/10- and 11/12-month contracts. Unless otherwise noted, our tables report on faculty members on 9/10-month contracts—87.0 percent of all full-time faculty members.
- *College and University Professional Association (CUPA).* CUPA reported average salaries in 337 public and 500 independent colleges and universities for 2008–09, by academic specialty and collective bargaining status. The report reflects 218,564 faculty members.
- *Office of Institutional Research at Oklahoma State University (OSU), Faculty Salary Data.* OSU reported faculty salaries for 117 public land grant universities in 2008–09, also by academic specialty. The OSU report reflects 120,389 faculty members.

HISTORICAL PERSPECTIVE

The U.S. is experiencing a profound recession. How did faculty salaries fare in earlier downturns? Average salaries for faculty members on 9/10-month contracts, uncorrected for inflation, increased 431 percent since 1972–73, the previous high point (Figure 1 and Table 1). But corrected for inflation, faculty purchasing power increased 5.9 percent over nearly four decades. The high inflation during the early 1980s eroded earlier salary gains. The recession of the early 1990s flattened salary growth, but did not result in declines. The average salary for faculty members in 2008–09 (\$73,567) represents a \$4,117 constant dollar increase over 1972–73 (\$69,450). Constant-dollar salaries increased over recent years, but the purchasing power of faculty members increased only 0.3 percent, not taking into account furloughs or other cost-saving measures.

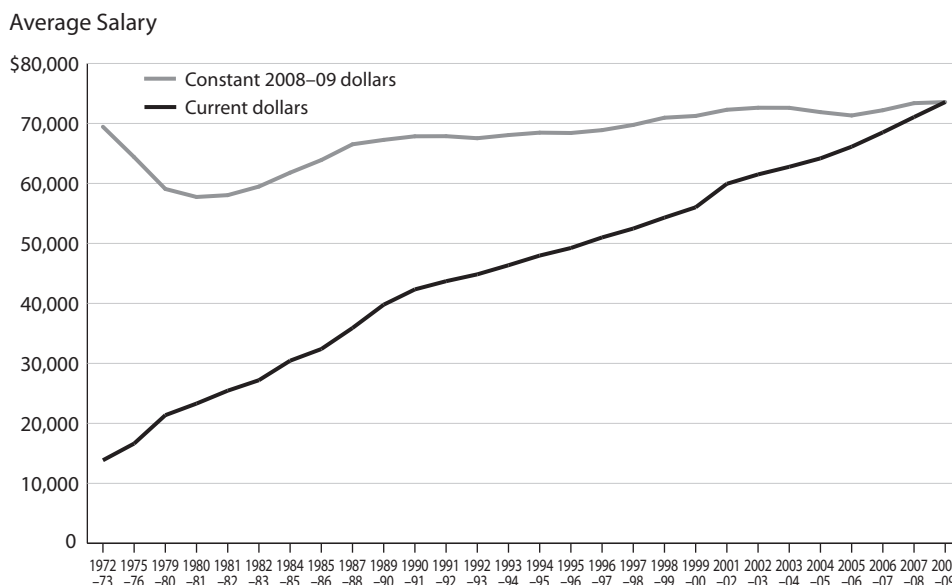
Purchasing power increased since 1972–73, but faculty members in some ranks experienced declines. Lecturers and faculty with no

rank lost purchasing power between the 1970s and 2008–09: 11 to 12 percent for each rank.¹ Faculty members in all other ranks experienced either little change in their purchasing power since 1972–73 (associate professors, 0.4 percent) or increases (professors, assistant professors, and instructors, 2.0 to 6.3 percent).

The difference between the inflation-corrected salaries of full professors and assistant professors fell from nearly \$36,000 in 1972–73 to about \$29,000 in the early 1980s. This difference then grew from the mid-1980s through the 1990s, and has increased consistently over the past five years. By 2008–09, full professors averaged \$102,266 and assistant professors averaged \$61,523—a \$40,743 difference.

A faculty member’s salary is a function of time on job, rank, and educational background, combined with institutional type and control, the instructor’s department, the existence of a collective bargaining agreement, and the local economy. Changing economic conditions and shifting educational preferences can

Figure 1. Average Salaries for Full-Time Faculty on 9/10-Month Contracts, by Year: 1972–73 to 2008–09



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, various years.

Table 1. Average Salaries and Change in Salaries and Purchasing Power, Full-Time Faculty on 9/10-Month Contracts, by Rank: 1972–73 and 2008–09

Faculty rank	Average Salary			\$ Change		% Change	
	1972–73		2008–09 Current Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars
	Current Dollars	Constant Dollars					
Total, all faculty	\$13,850	\$69,450	\$73,567	\$59,717	\$4,117	431%	6%
Professor	19,182	96,187	102,266	83,084	6,079	433	6
Associate	14,572	73,070	73,396	58,824	326	404	0
Assistant	12,029	60,319	61,523	49,494	1,204	411	2
Instructor	10,737	53,840	57,135	46,398	3,295	432	6
Lecturer	11,637	58,353	51,151	39,514	-7,202	340	-12
No Rank	12,676	63,563	56,407	43,731	-7,156	345	-11

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey, 1972–73 and 2008–09*.

cause changes in the demand for—and in the salaries of—faculty in specific fields. Higher pay results when an academic field competes with corporate or business employers for faculty members. Recessions result in less funding from state and local governments, though the cuts vary by region, state, and locality. Wealthier institutions, especially research and doctoral universities, are best able to sustain faculty salaries during these declines.

INSTITUTIONAL CHARACTERISTICS

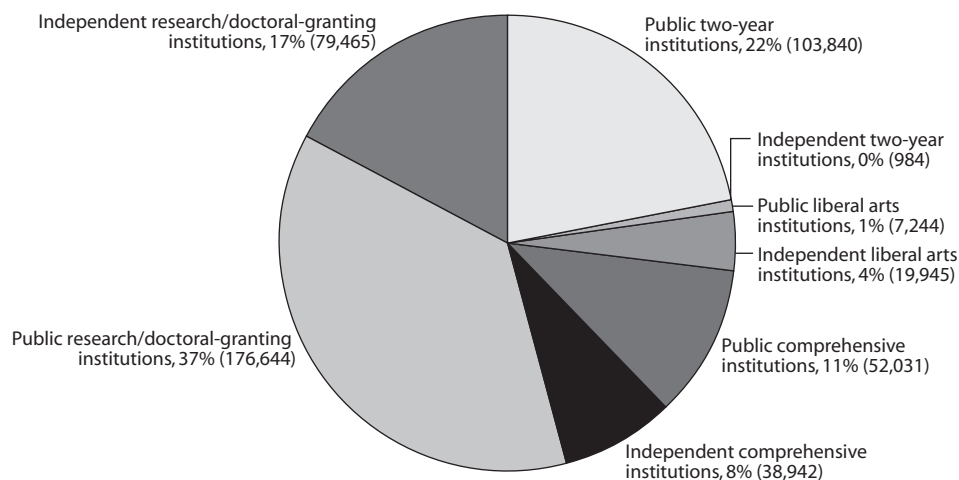
The nation's faculty is dispersed across many institutional sectors—public and independent, and two-year, liberal arts, comprehensive, and research/doctoral-granting institutions. In 2008–09, 71 percent of faculty members on 9/10-month contracts taught in the public sector—36 percent in universities, 22 percent in community colleges, 11 percent in comprehensive colleges, and two percent in baccalaureate colleges (Figure 2). The remaining 29 percent of faculty members on 9/10-month contracts taught in the independent sector—17 percent at universities, and 12 percent at baccalaureate and comprehensive colleges combined. Independent two-year institutions accounted

for less than one percent of all faculty members. The distribution of faculty by sector has remained relatively steady over time.

Salaries vary by institutional type and control. Faculty on 9/10-month contracts at independent institutions earned \$79,208 in 2008–09, while colleagues at public institutions earned \$71,254 (Table 2)—an 11 percent gap, and a one percent increase in the gap since 2007–08. The salaries of university faculty members accounted for this difference: faculty at public universities earned \$78,957—87 percent of the \$90,812 average at independent universities. Salaries at public institutions exceeded the pay received by colleagues at all other independent institutional levels.

Average salaries for faculty in independent colleges and universities ranged from \$45,755 at two-year colleges to \$90,812 at universities, a \$45,057 difference. The corresponding salaries in the public sector showed a much smaller range: from \$61,348 at two-year institutions to \$78,957 at universities, a \$17,609 difference. In the public sector, this difference between the lowest- and highest-paid institutional types—two-year institutions and universities, respectively—remained stable over the past year.

Figure 2. Percentage Distribution of Full-Time Faculty on 9/10-Month Contracts, by Institutional Type and Control, 2008–09



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2008–09.

Note: Based on 99 percent (2,984 institutions) of NEA's faculty salary universe (3,013 institutions).

The difference increased by \$1,278 at independent institutions, where faculty members at universities received larger salary increases than their colleagues in two-year colleges.

ACADEMIC RANK

Not surprisingly, academic rank and salary were closely related. Professors—27 percent of the faculty—earned the highest average salary in 2008–09 (\$97,720) (Figure 3 and Table 2). Associate professors (23 percent) earned \$71,554, just under three-fourths of the average salary for professors. Assistant professors (24 percent) averaged \$60,799. One quarter of the teaching force comes from the remaining three ranks: instructors (seven percent), lecturers (five percent), and “no rank” (14 percent); faculty members in these three ranks earned the least. Instructors trailed the pack at \$49,395, while faculty members with no rank, mostly located at community colleges, earned \$58,549 in 2008–09. Faculty in the latter category lost more than 11 percent in salaries and purchasing power since their peak in the early 1970s.

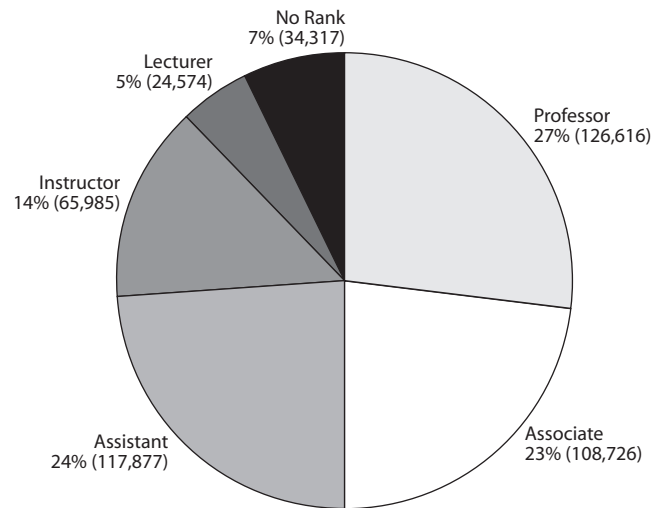
Faculty with no rank in public liberal arts institutions had the lowest salaries (\$40,120). Professors teaching in universities had the highest average salaries: independent, \$128,222; public, \$108,650.

CONTRACT LENGTH

Salaries associated with 11/12-month (annual) contracts vary by institutional size and type, mission, and wealth. Faculty members on annual contracts may undertake additional research, or take on administrative or additional teaching responsibilities. Research grants, institutes, or other special projects may fund annual contracts in research universities. Smaller institutions with limited resources often have faculty members on 11/12-month contracts assume non-teaching responsibilities, in lieu of hiring administrators. But these faculty members tend to have lower average salaries than their 9/10-month colleagues in larger, better-funded institutions.

Most faculty members at public and independent institutions were employed on 9/10-month

Figure 3. Percentage Distribution of Full-Time Faculty on 9/10-Month Contracts, by Faculty Rank, 2008–09



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2008–09.

Note: Based on 99 percent (2,984 institutions) of NEA's faculty salary universe (3,013 institutions).

contracts in 2008–09. Only 13 percent (73,362) had 11/12-month contracts (derived from Figures 2 and 4). Public institutions employed 68 percent of faculty members on annual contracts. Forty-two percent of 11/12-month contract faculty, but only 37 percent of colleagues on 9/10-month contracts, taught at public doctoral universities.

Pay for faculty members on 11/12-month contracts at public institutions averaged 22 percent higher than for colleagues on 9/10-month contracts: 24 to 25 percent more at public doctorals; 24 percent more at baccalaureate and comprehensive colleges; only four percent more at community colleges (derived from Tables 2 and 3). However, faculty on 11/12-month contracts at independent institutions earned \$885 less than colleagues on 9/10-month contracts, a trend that held for all degree-granting levels at independent four-year institutions. Faculty at two-year independent institutions with 11/12-month contracts averaged 18 percent more (\$8,240) than colleagues on 9/10-month con-

tracts, but this category includes only about 2,000 faculty members (less than one percent).

Faculty members on 11/12-month contracts at independent institutions earned \$8,500 less than colleagues at public institutions (\$78,323 vs. \$86,823)—the reverse of our finding for faculty on 9/10-month contracts. This differential grew by nine percent since last year. The greatest salary discrepancy for faculty on 11/12-month contracts was seen at independent baccalaureate and comprehensive institutions, where faculty earned nearly \$20,000 less than their public sector counterparts (Table 3).

SALARIES BY GENDER

Historically, male faculty members have earned more than females, and this gap has widened since the early 2000s. Men earned more than women in nearly every institutional type and rank in 2008–09. The gap in 2008–09 (Table 4) was \$12,683 at public institutions (a \$410 one-year increase), and \$16,828 at independents (a \$597 increase).

Table 2. Average Salaries for Full-Time Faculty on 9/10-Month Contracts by Institutional Type and Control, and Rank, 2008–09

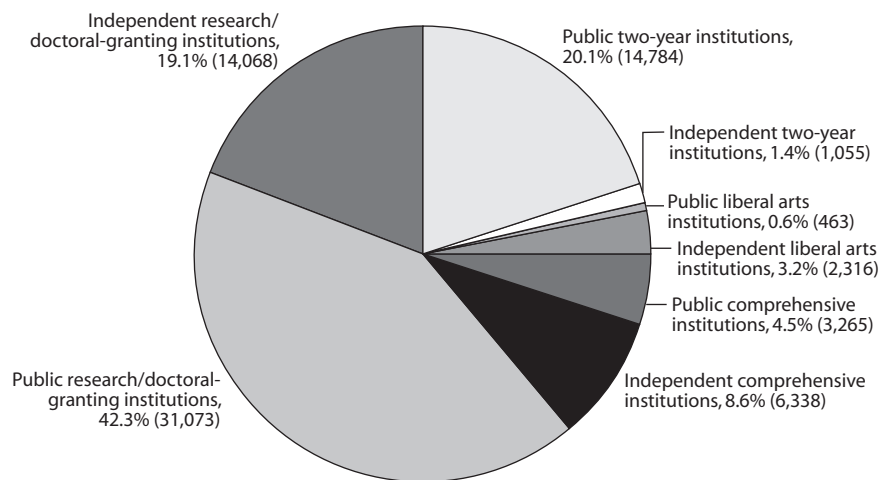
Offering Level and Faculty Rank	Public Institutions	Independent Institutions	All Institutions
Two-Year Institutions			
Professor	\$ 71,128	\$ 53,934	\$ 70,969
Associate	59,860	47,058	59,576
Assistant	53,210	44,543	53,015
Instructor	64,556	41,935	64,416
Lecturer	51,064	39,443*	51,009
No Rank	55,478	44,969*	55,444
Average	61,348	45,755	61,201
Liberal Arts Institutions			
Professor	90,915	85,773	86,881
Associate	70,905	64,658	66,191
Assistant	58,252	53,119	54,560
Instructor	48,375	42,196	44,658
Lecturer	50,124	54,958	52,487
No Rank	40,120	55,025	53,326
Average	66,397	64,798	65,224
Comprehensive Institutions			
Professor	84,983	80,327	82,920
Associate	67,936	64,483	66,393
Assistant	57,297	53,816	55,801
Instructor	43,048	44,158	43,449
Lecturer	48,494	49,361	48,674
No Rank	55,904	61,182	59,792
Average	65,550	63,756	64,782
Research/Doctoral-Granting Institutions			
Professor	108,650	128,222	115,076
Associate	76,939	83,220	78,859
Assistant	65,293	69,062	66,423
Instructor	44,259	50,681	45,861
Lecturer	49,477	57,381	51,666
No Rank	53,507	66,446	59,932
Average	78,957	90,812	82,635
Average			
Professor	93,180	108,235	97,720
Associate	70,212	75,071	71,554
Assistant	60,226	62,345	60,799
Instructor	50,364	47,582	49,395
Lecturer	49,825	54,666	51,001
No Rank	54,191	63,188	58,549
Average	71,254	79,208	73,567

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2008–09.

Note: Based on 99 percent (2,984 institutions) of NEA's faculty salary universe (3,013 institutions).

*Indicates less than 100 faculty.

Figure 4. Number of Full-Time Faculty on 11/12-Month Contracts by Institutional Type and Control and Rank, 2008–09



Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2008–09.

Note: Based on 99 percent (2,984 institutions) of NEA's faculty salary universe (3,013 institutions).

Salaries of female faculty members averaged 80 to 84 percent of men's salaries in 2008–09, with a range from 78 percent in independent research-doctoral-granting institutions, to 110 percent for instructors in independent two-year institutions. Women fared best in two-year colleges, earning 96 to 100 percent of men's salaries, and the worst at universities, earning only 78 to 80 percent of the salaries of male faculty.

The gender disparity varied by rank within the institutional sectors, and was most pronounced among professors. Female professors averaged 89 percent of men's salaries in public research universities; women in other ranks in the public sector earned 92 to 96 percent of men's salaries. The same pattern held in community colleges. Female professors earned 95 percent of the average male professor's salary. Women associate and assistant professors and lecturers earned 97 to 99 percent in the equivalent ranks.

Women not only earned less, they were also more likely to hold lower rank positions. Women held 59 percent of the instructor and 56

percent of the lecturer positions, similar to the shares they held a decade ago. The proportion of women teaching in the upper ranks increased between 1997–98 and 2008–09: from 23 to 32 percent for professors, and from 37 percent to 43 percent for associate professors (Table 5).²

This upper rank shift is encouraging, but women still do not have equal representation, and are still more likely to teach in the lower ranks. Why do female faculty members consistently earn less, even within the same rank and sector? And why are more women not seen in the upper ranks? Research suggests that women are less likely than male faculty to work in selective universities that pay the highest average salaries. Women are also more heavily concentrated in lower-paying institutions, and are more likely to work in non-research fields.³

SALARIES BY STATE

Faculty salaries vary widely by state, even within the same sector. In public two-year colleges, California continued to lead all states in average salaries in 2008–09 (\$81,765, Table 6)

Table 3. Average Salaries for Full-Time Faculty on 11/12-Month Contracts by Institutional Type and Control, and Rank, 2008–09

Offering Level and Faculty Rank	Public Institutions	Independent Institutions	All Institutions
Two-Year Institutions			
Professor	\$77,416	\$54,338*	\$76,976
Associate	66,510	61,594*	66,115
Assistant	59,631	60,156	59,715
Instructor	64,612	52,259	63,468
Lecturer	29,119	36,640*	29,281
No Rank	58,642	47,562*	58,458
Average	63,576	53,995	62,938
Liberal Arts Institutions			
Professor	116,715	72,877	84,179
Associate	83,811	66,408	69,642
Assistant	63,921	59,730	60,443
Instructor	56,246*	39,420	42,999
Lecturer	66,238*	61,112*	62,017
No Rank	52,134*	72,014	71,689
Average	83,014	63,495	66,747
Comprehensive Institutions			
Professor	104,735	75,109	88,006
Associate	84,515	64,433	71,359
Assistant	67,598	57,294	60,364
Instructor	53,357	51,322	51,779
Lecturer	63,037	44,209	56,166
No Rank	54,682	53,773	53,990
Average	80,992	61,084	67,853
Research/Doctoral-Granting Institutions			
Professor	133,936	124,842	131,577
Associate	98,022	89,466	95,282
Assistant	81,134	75,474	79,113
Instructor	59,265	58,860	59,138
Lecturer	65,047	69,563	66,326
No Rank	58,816	77,733	65,934
Average	98,553	90,355	95,998
Average			
Professor	115,001	103,395	112,290
Associate	87,604	79,310	84,882
Assistant	73,670	68,415	71,764
Instructor	60,442	54,664	58,498
Lecturer	54,214	60,521	56,835
No Rank	58,429	69,450	62,974
Average	86,823	78,323	84,068

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2008–09.

Note: Based on 99 percent (2,984 institutions) of NEA's faculty salary universe (3,013 institutions).

*Indicates fewer than 100 faculty.

Table 4. Average Salaries for Men and Women Full-Time Faculty on 9/10-Month Contracts, by Institutional Type and Control, and Rank, 2008–09

Offering Level and Faculty Rank	Public Institutions		Independent Institutions	
	Women	Men	Women	Men
Two-Year Institutions				
Professor	\$ 69,267	\$ 73,014	\$ 50,880*	\$ 56,897*
Associate	59,073	60,763	46,524	47,729
Assistant	52,673	53,895	45,559	42,894
Instructor	63,423	65,854	43,424	39,252
Lecturer	50,955	51,213	39,443*	#
No Rank	54,565	56,573	44,584*	45,392
Average	60,130	62,754	45,669	45,877
Liberal Arts Institutions				
Professor	86,419	92,820	83,666	86,750
Associate	68,003	72,794	64,657	64,659
Assistant	56,404	59,772	52,775	53,469
Instructor	46,116	50,768	42,541	41,743
Lecturer	49,609	50,654	54,941	54,982
No Rank	40,321*	39,914*	51,813	57,338
Average	61,308	70,027	61,349	67,410
Comprehensive Institutions				
Professor	82,825	86,020	77,426	81,741
Associate	66,784	68,795	63,435	65,301
Assistant	56,458	58,123	53,016	54,659
Instructor	42,648	43,651	44,160	44,156
Lecturer	47,117	50,110	46,932	52,166
No Rank	53,691	58,425	58,489	63,484
Average	61,720	68,623	60,156	66,645
Research/Doctoral-Granting Institutions				
Professor	99,724	111,441	115,939	132,071
Associate	73,667	79,068	79,034	85,950
Assistant	62,530	67,702	65,477	72,428
Instructor	43,538	45,480	49,405	52,335
Lecturer	47,619	51,822	53,773	61,590
No Rank	50,341	57,774	60,973	71,216
Average	68,465	85,841	77,120	99,404
Average				
Professor	85,717	97,265	98,742	112,212
Associate	67,155	72,655	71,810	77,394
Assistant	57,868	62,512	59,584	64,994
Instructor	50,743	50,542	46,721	48,658
Lecturer	48,805	51,376	51,728	58,184
No Rank	52,202	57,164	58,676	67,140
Average	64,238	76,921	69,283	86,111

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2008–09.

Note: Based on 99 percent (2,984 institutions) of NEA's faculty salary universe (3,013 institutions).

* Indicates fewer than 100 faculty.

Indicates no reporting institutions in this category.

Table 5. Women Faculty as a Percent of Total Full-Time Faculty on 9/10-Month Contracts, by Institutional Type and Control, and Rank, 2008–09

Offering Level and Faculty Rank	Public Institutions	Independent Institutions	All Institutions
Two-year Institutions			
Professor	50.3%	49.3%	50.3%
Associate	53.4	55.7	53.5
Assistant	56.0	61.9	56.1
Instructor	53.4	64.3	53.5
Lecturer	57.7	100.0*	57.9
No Rank	54.5	52.4*	54.5
Average	53.6	58.6	53.6
Liberal Arts Institutions			
Professor	29.8	31.7	31.3
Associate	39.4	41.8	41.2
Assistant	45.1	50.4	48.9
Instructor	51.4	56.7	54.6
Lecturer	50.7	58.9	54.7
No Rank	50.6*	41.9	42.9
Average	41.6	43.1	42.7
Comprehensive Institutions			
Professor	32.4	32.8	32.6
Associate	42.7	43.9	43.2
Assistant	49.6	51.3	50.3
Instructor	60.1	61.0	60.5
Lecturer	54.0	53.6	53.9
No Rank	53.2	46.1	48.0
Average	44.5	44.5	44.5
Research/Doctoral-Granting Institutions			
Professor	23.8	23.9	23.8
Associate	39.4	39.5	39.4
Assistant	46.6	48.4	47.1
Instructor	62.9	56.4	61.3
Lecturer	55.8	53.8	55.2
No Rank	57.4	46.6	52.0
Average	39.6	38.6	39.3
Average			
Professor	33.4	27.6	31.7
Associate	44.2	41.1	43.3
Assistant	49.9	49.6	49.8
Instructor	59.3	57.8	59.0
Lecturer	56.0	54.8	55.5
No Rank	55.7	45.8	51.3
Average	44.7	41.0	43.6

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2008–09.

Note: Based on 99 percent (2,984 institutions) of NEA's faculty salary universe (3,013 institutions).

* Indicates fewer than 100 faculty.

Table 6. Average Salaries for Full-Time Faculty on 9/10-Month Contracts, by Control and State, 2008–09

State	Public Institutions			State	Public Institutions		
	Two-Year	Four-Year	Independent Institutions		Two-Year	Four-Year	Independent Institutions
California	\$81,765	\$89,809	\$94,837	Missouri	\$53,540	\$66,698	\$71,292
Alaska	75,472	68,603	54,209	Alabama	53,169	69,198	54,675
Michigan	74,458	80,787	61,850	Iowa	51,377	82,343	59,951
Wisconsin	72,538	68,752	62,407	Louisiana	50,250	64,133	69,400
Connecticut	70,449	88,011	98,130	Utah	49,917	68,045	89,305
Hawaii	68,929	87,714	68,855	New Hampshire	49,874	84,608	85,660
New Jersey	68,821	94,427	93,819	Nebraska	49,498	72,146	57,764
Arizona	68,426	80,469	55,643	Mississippi	49,495	60,225	52,073
New York	67,400	81,051	88,564	Colorado	49,338	71,528	76,485
Nevada	66,518	87,096	62,802	Idaho	49,160	60,118	50,623
Maryland	65,426	79,142	75,103	Kentucky	48,953	66,203	53,896
Illinois	64,289	73,756	82,537	Kansas	48,752	72,442	46,354
Delaware	63,686	90,935	81,080	Oklahoma	47,929	65,006	60,590
Minnesota	61,628	77,573	67,439	North Carolina	47,413	77,643	76,781
National average	61,289	75,614	79,297	New Mexico	47,168	68,498	70,995
Oregon	60,211	66,497	68,151	Tennessee	46,984	65,308	67,612
Massachusetts	60,200	79,992	99,415	Indiana	46,962	73,471	70,403
Rhode Island	59,617	75,110	88,659	South Carolina	46,492	68,918	52,851
Pennsylvania	58,640	78,131	80,833	Georgia	46,371	69,384	70,602
Wyoming	58,089	76,719	+	West Virginia	45,352	61,764	45,924
Ohio	57,788	74,884	66,034	South Dakota	44,811	60,767	48,657
Virginia	57,742	78,740	64,430	North Dakota	44,359	60,190	47,715
Florida	55,804	74,656	70,522	Montana	44,243	61,125	46,539
Washington	55,320	76,868	67,637	Arkansas	43,022	59,677	53,611
Maine	54,586	70,224	75,373	Washington, DC	+	78,454	91,712
Texas	54,186	74,804	74,190	Vermont	+	69,505	70,193

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2008–09.

Note: Ranked in descending order of average salary for public two-year institutions

Based on 99.6 percent (1,034) of the public two-year institution universe (1,038); 99 percent (586) of the public four-year institution universe (591); 99 percent (1,364) of the independent institution universe (1,384).

+ Indicates no institutions in this category.

—the first time a state reported an average salary over \$80,000 for this category. Alaska, the leader a decade ago, came in a distant second (\$75,472). New Jersey reported the highest average salary (\$94,427) for faculty at public four-year institutions, with Delaware (\$90,935) and California (\$89,809) close behind. These three

states have vied for the highest average salary paid to public four-year faculty for nearly two decades. Salaries in 11 states averaged more than \$80,000 at four-year public institutions, up from five states last year. Salaries for public four-year faculty in just one state, Arkansas, averaged less than \$60,000 (\$59,677). The range

among states between the lowest (Arkansas) and highest (California) average salary in public two-year colleges was \$38,743. The range in the public four-year sector: \$34,750 (New Jersey at the high end and Arkansas at the low). Only in Alaska did public two-year faculty members earn a higher average salary than in public four-year institutions (\$75,472 vs. \$68,603).⁴ The difference between the public two- and four-year average salaries within each state ranged from about \$6,300 in Oregon and Michigan, to \$34,734 in New Hampshire. The average difference across all states was \$14,325 in 2008–09.

Average salaries in public four-year institutions exceeded those in independent colleges and universities in 30 states. Faculty members at independent institutions in Massachusetts—the perennial leader in the independent sector—received the highest average salary (\$99,415); colleagues in West Virginia had the lowest average pay (\$45,924) among independent institutions.

CHANGE FROM 2007–08

Average faculty salaries increased 3.4 percent between 2007–08 and 2008–09: 3.0 and 3.2 percent, respectively in public two- and four-year public institutions; 4.0 percent in the independent sector (Table 7). Increases varied by rank; lecturers and faculty with no rank in independent two-year institutions, and instructors and faculty with no rank at independent universities—ranks containing relatively few faculty members—received the largest salary increases.

This year's difference in salary increases—3.9 and 3.2 percent at independent and public institutions, respectively—continues the growth in the gap between sectors. This calculation does not include recession-induced furloughs or other cost-saving measures.

Louisiana faculty at independent institutions saw the greatest salary increase by state and sector from 2007–08 to 2008–09 (15.6 percent, Table 8). New Hampshire faculty in four-year institutions enjoyed the largest increase in the public sector (11.7 percent). Hawaii faculty in

both two- and four-year institutions received increases of more than 10 percent—the largest salary increases in the public sector, regardless of institutional level.

LAND-GRANT COLLEGES AND UNIVERSITIES

The 117 land-grant universities in the OSU database employ 68 percent of the faculty members in public research/doctoral-granting universities, including many of the highest-paid faculty members in public higher education. Salaries averaged \$90,368 in 2008–09, well above the \$78,957 average for all public research/doctoral-granting universities (Tables 9 and 2). Faculty members in land-grant universities averaged a 4.4 percent salary increase; all faculty members in public research/doctoral-granting universities received 3.1 percent. Salaries paid to law and legal studies faculty, the perennial leader, topped the list again (\$141,512), followed by faculty members in business management and administrative services (\$125,431). Visual and performing arts (\$69,877) and foreign languages and literatures (\$69,326)—the only disciplines with averages under \$70,000—continued their status as the two lowest-paid specialties in the OSU database.

Salaries for faculty in English language and literature/letters—one of the lowest paid disciplines—increased by 7.4 percent, the highest average salary increase for any field this year. Next came colleagues in multidisciplinary studies, at 5.8 percent. No discipline reported a decrease in average salaries this year.

ACADEMIC SPECIALTY

Surveys by CUPA, like OSU, report salaries at public and independent four-year colleges and universities by academic department. But CUPA places more emphasis on undergraduate faculty and less on professional and graduate school faculty than OSU. CUPA receives reports from a different set of institutions each year. This year, the association surveyed salaries at 837 four-year institutions—51 percent of

Table 7. Percent Change in Salaries for Full-Time Faculty on 9/10-Month Contracts by Control and Type, and Rank, 2007–08 to 2008–09

Offering Level and Faculty Rank	Public Institutions	Independent	All
Two-Year Institutions			
Professor	2.6%	3.9%	2.6%
Associate	2.7	-2.0	2.5
Assistant	3.3	4.4	3.4
Instructor	3.2	4.0	3.3
Lecturer	5.2	13.9*	5.3
No Rank	2.7	-2.3*	2.7
Average	3.0	3.2	3.0
Liberal Arts Institutions			
Professor	4.5	3.5	3.7
Associate	3.9	3.6	3.7
Assistant	3.8	3.6	3.7
Instructor	3.4	4.0	4.0
Lecturer	4.8	11.2	7.8
No Rank	-3.0	5.7	5.1
Average	3.5	3.7	3.6
Comprehensive Institutions			
Professor	3.9	3.6	3.8
Associate	3.8	3.8	3.8
Assistant	3.6	3.8	3.7
Instructor	2.5	2.7	2.6
Lecturer	3.3	4.5	3.6
No Rank	5.8	3.6	4.3
Average	3.5	3.5	3.5
Research/Doctoral-Granting Institutions			
Professor	3.7	4.9	4.2
Associate	3.4	4.4	3.7
Assistant	3.5	4.7	3.9
Instructor	2.8	6.0	3.6
Lecturer	3.1	3.4	3.4
No Rank	7.6	6.8	7.4
Average	3.1	4.2	3.5
Average			
Professor	3.4	4.3	3.7
Associate	3.3	4.1	3.5
Assistant	3.5	4.3	3.7
Instructor	2.9	4.8	3.4
Lecturer	3.8	4.9	4.1
No Rank	5.6	5.7	5.6
Average	3.2	3.9	3.4

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2007–08 and 2008–09.

Note: Based on 98 percent (2,955 institutions) of NEA's faculty salary universe (3,013 institutions).

* Indicates fewer than 100 faculty.

Table 8. Percent Change in Average Salaries for Full-Time Faculty on 9/10-Month Contracts, by Control and State, 2007–08 to 2008–09

State	Public			State	Public		
	Two-Year	Four-Year	Independent		Two-Year	Four-Year	Independent
Hawaii	10.3%	10.2%	5.8%	Illinois	2.9%	2.6%	4.3%
Alaska	6.8	7.4	-1.7	Louisiana	2.8	3.3	15.6
Colorado	5.9	2.6	4.6	Oklahoma	2.6	2.2	3.1
North Dakota	5.6	2.8	4.4	Montana	2.5	3.9	0.8
Nevada	5.5	6.6	2.4	Pennsylvania	2.5	2.9	3.6
Texas	5.5	3.6	4.1	Kansas	2.4	3.5	2.6
Virginia	5.4	1.0	4.1	California	2.3	2.8	4.2
Maine	5.3	3.1	3.9	Michigan	2.2	3.5	3.3
Washington	5.3	5.3	2.9	West Virginia	2.0	4.1	2.6
Iowa	5.1	4.9	3.9	Mississippi	1.9	-0.3	3.8
Rhode Island	4.6	6.1	3.0	Wyoming	1.9	6.1	+
Minnesota	4.2	4.6	3.7	Idaho	1.7	2.8	3.5
Wisconsin	4.1	3.7	3.8	Massachusetts	1.6	2.2	4.7
Missouri	4.0	4.5	3.7	Oregon	1.6	5.0	4.5
Connecticut	3.9	3.3	4.5	Indiana	1.5	3.8	3.3
Utah	3.8	2.3	3.8	New Jersey	1.3	4.9	4.3
Nebraska	3.7	4.1	3.7	Arkansas	0.9	1.8	3.4
South Dakota	3.7	3.7	2.6	Florida	0.8	1.9	2.4
New Hampshire	3.6	11.7	6.0	Delaware	0.7	4.2	2.2
New York	3.6	6.6	3.7	New Mexico	0.7	3.4	5.3
Arizona	3.5	-2.2	6.8	South Carolina	0.7	0.9	-2.5
North Carolina	3.5	3.8	5.3	Alabama	0.2	0.2	3.9
Georgia	3.3	3.2	4.4	Kentucky	0.0	1.5	3.7
Maryland	3.3	3.4	-4.8	Tennessee	-0.4	0.1	4.2
Ohio	3.1	2.6	3.0	Washington, D.C.	+	7.0	5.0
National average	3.0	3.2	3.9	Vermont	+	5.6	3.2

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary Survey*, early release version, 2007–08 and 2008–09.

Note: Ranked in descending order of percent change in average salary for public two-year institutions.

Based on 99.5 percent (1,033) of the two-year public institution salary universe (1,038), 99 percent (585) of the four-year public institution salary universe (591), and 97 percent (1,337) of the private institution salary universe (1,384) reporting comparable data in both years.

+ Indicates no institutions in this category.

the faculty at public and independent four-year colleges and universities.

Business, management, and marketing faculty earned the highest average salary at public four-year institutions (\$92,607); engineering faculty followed closely (\$90,109, Table 10). Foreign languages, literatures and linguistics;

visual and performing arts; and English language and literature/letters were at the bottom of the list—as in the OSU ranking. Engineering faculty topped the list at independent four-year institutions (\$89,797); business, management, and marketing faculty followed closely (\$86,747). Business faculty members at public

Table 9. Average Salaries for Full-Time Faculty on 9/10-Month Contracts in Land Grant Universities, Percent Change, 2007–08 to 2008–09, and Number of Faculty, by Discipline

Discipline	Salary		Number of Faculty
	Average: 2008–09	Increase: 2007–08 to 2008–09	
Law and Legal Studies	\$141,512	5.2%	1,812
Business Management and Administrative Services	125,431	4.5	7,786
Computer and Information Services	107,189	5.2	2,421
Engineering	106,449	4.0	11,430
Physical Sciences	95,649	5.3	8,558
Health Professions and Related Services	93,646	4.0	10,996
Biological Sciences and Life Sciences	91,163	4.8	8,783
Social Sciences and History	90,784	6.9	9,003
All disciplines	90,368	4.4	120,389
Mathematics	88,397	4.9	5,031
Multidisciplinary Studies	87,534	5.8	968
Psychology	87,012	3.5	3,931
Agricultural Business and Production	85,370	4.3	4,494
Public Administration and Services	84,555	3.3	1,814
Conservation and Renewable Natural Resources	81,568	2.3	1,566
Area, Ethnic, and Cultural Studies	80,059	4.4	1,222
Philosophy and Religion	78,594	3.5	1,570
Architecture and Related Programs	78,495	4.9	1,741
Library Science	76,496	5.5	453
Home Economics	74,845	2.9	1,984
Engineering-Related Technologies	73,540	2.9	561
Communications	73,069	2.5	2,482
English Language and Literature/Letters	73,011	7.4	5,861
Education	72,890	2.9	6,961
Parks, Recreation, Leisure and Fitness Studies	72,741	3.1	1,229
Visual and Performing Arts	69,877	5.2	7,831
Foreign Languages and Literatures	69,326	5.4	4,880

Source: Oklahoma State University. *Faculty Salary Survey, 2007–08 and 2008–09*.

Note: Ranked in descending order according to 2008–09 salary.

Table 10. Average Salaries, Full-Time Faculty in Four-Year Institutions, by Control and Discipline, 2008–09

Discipline	Public (P)	Independent (I)	Difference (P-I)
Agriculture, Agriculture Operations, and Related Sciences	\$72,428	\$61,714	\$10,714
Communications Technologies/Technicians and Support Services	67,313	57,178	10,135
Multi/Interdisciplinary Studies	73,713	65,069	8,644
Natural Resources and Conservation	72,631	64,175	8,456
Computer and Information Sciences and Support Services	82,627	75,688	6,939
Library Science	66,334	59,577	6,757
Business, Management, Marketing, and Related Support Services	92,607	86,747	5,860
Security and Protective Services	64,508	59,693	4,815
Biological and Biomedical Sciences	71,170	66,489	4,681
Parks, Recreation, Leisure and Fitness Studies	62,945	58,511	4,434
Public Administration and Social Service Professions	68,934	64,895	4,039
Health Professions and Related Clinical Sciences	72,038	68,790	3,248
Education	64,842	62,278	2,564
All disciplines	71,027	69,052	1,975
Family and Consumer Sciences/Human Sciences	64,485	63,253	1,232
Mathematics and Statistics	65,560	64,332	1,228
Physical Sciences	68,830	67,849	981
Psychology	66,643	65,768	875
Architecture and Related Services	74,217	73,736	481
Communication, Journalism and Related Services	63,328	62,867	461
Liberal Arts and Sciences, General Studies and Humanities	62,698	62,286	412
Engineering	90,109	89,797	312
Philosophy and Religious Studies	64,822	65,984	-1,162
Visual and Performing Arts	60,669	62,743	-2,074
English Language and Literature/Letters	59,558	62,015	-2,457
History	62,755	65,349	-2,594
Social Sciences	68,267	71,373	-3,106
Area, Ethnic, Cultural, and Gender Studies	70,751	74,793	-4,042
Engineering Technologies/Technicians	69,316	73,489	-4,173
Foreign Languages, Literatures, and Linguistics	62,047	66,409	-4,362

Source: College and University Professional Association. 2009 National Faculty Salary Survey by Discipline and Rank in Four-Year Colleges and Universities.

Note: Sorted in descending order by salary differential. CUPA collects data from a different set of institutions every year; as such, caution should be taken in making year-to-year comparisons. CUPA reports average salaries based on simple averages of institutions, rather than based on the number of faculty.

institutions had a \$5,860 earnings advantage over peers at independent colleges and universities, as did engineering faculty, though the difference (\$312) is much smaller.

COLLECTIVE BARGAINING

Collective bargaining agreements covered about 30 percent of the 146,000 faculty members in the CUPA survey who teach in public four-year colleges. This 30 percent averaged \$72,959—\$2,938 more than colleagues in public institutions without bargaining agreements (\$70,021, Table 11).

The largest difference between unionized and non-unionized faculty salaries was in security and protective services (\$7,127). Unionized faculty members in visual and performing arts; agriculture, agriculture operations, and related sciences; history; and natural resources and conservation enjoyed salary differentials greater than \$6,000, when compared to their non-unionized colleagues. Salary differentials favored faculty in non-bargaining institutions in only six disciplines, with the largest salary difference occurring in multi/interdisciplinary studies (\$3,822). The other five disciplines showed differences less than \$1,000. Among the largest disciplinary group reported by CUPA—health professions and related clinical sciences—only 21 percent of faculty were unionized, and earned \$1,689 more than their non-unionized colleagues. Library science—by far the discipline with the largest proportion of unionized faculty members (50 percent)—showed a \$5,000 differential favoring colleagues covered by collective bargaining agreements.

OUR EDUCATIONAL CHALLENGE

On July 14, 2009, President Obama announced the American Graduation Initiative. “By 2020, this nation will once again have the highest proportion of college graduates in the world,” he stated, adding that “[t]hrough this plan... we seek to help an additional five million Americans earn degrees and certificates in the next decade.”⁵ Increasing the effectiveness and

impact of community colleges and their graduation rates, the president argued, will increase the capacity and competitiveness of America’s workforce. The president’s initiative has two parts: (1) to produce five million more degrees and certificates at or below the two-year level over the decade, and (2) to have 60 percent of students at the typical age of graduation earn baccalaureate degrees—the highest proportion of bachelor’s degree holders in the world.

To meet these goals, the number of new students, and student completion rates, must exceed current projections. Greater initial enrollments and increased retention, in turn, require more faculty members to ensure quality. How many additional faculty members are required to teach the five million new associate’s degree and certificate completers, and achieve the world’s highest proportion of bachelor’s degree holders?

FIVE MILLION NEW DEGREES AND CERTIFICATES

Projections of enrollments, completions, and numbers of faculty members were computed, with the assumption that the for-profit sector would sustain its production of approximately 30 percent of certificates and associate’s degrees—its proportion over the past decade. Community colleges would, therefore produce the remaining 70 percent (3,508,500 of the five million new completers, or 350,850 annually). The estimate of new completers by 2020 was computed by adding the number of new enrollees necessary to generate the additional certificate and associate’s degree recipients to current completion estimates for each year between 2011 and 2020. The baseline year completion rate and faculty-student ratio were then combined to determine the number of students, and thus the number of additional faculty, needed to support the new completers.

The following points should be noted regarding these estimates:

- Completion rate: Students will stay in college longer, thus increasing student enrollments,

Table 11. Average Salaries and Salary Difference, by Bargaining Status and Discipline, Full-Time Faculty in Public Four-Year Institutions, 2008–09

Discipline	Average Salaries			Number of Faculty	
	Collective Bargaining	Non-collective Bargaining	Difference	Collective Bargaining	Non-collective Bargaining
Security and Protective Services	\$69,143	\$61,971	\$7,172	511	818
Visual and Performing Arts	65,288	58,452	6,836	3,293	7,790
Agriculture, Agriculture Operations, and Related Sciences	77,889	71,079	6,810	412	1,889
History	67,349	60,657	6,692	1,209	2,934
Natural Resources and Conservation	77,010	70,612	6,398	270	804
Philosophy and Religious Studies	68,577	62,767	5,810	682	1,275
English Language and Literature/Letters	63,414	57,645	5,769	2,986	6,028
Liberal Arts and Sciences, General Studies and Humanities	66,362	61,021	5,341	195	378
Mathematics and Statistics	69,058	63,925	5,133	2,119	4,784
Education	68,169	63,165	5,004	4,676	8,469
Communication, Journalism and Related Services	66,734	61,743	4,991	1,187	2,563
Psychology	70,027	65,079	4,948	1,828	3,608
Library Science	69,536	64,629	4,907	316	310
Foreign Languages, Literatures, and Linguistics	65,052	60,594	4,458	1,349	3,089
Parks, Recreation, Leisure and Fitness Studies	65,491	61,688	3,803	783	1,686
Physical Sciences	71,284	67,662	3,622	2,831	6,154
Computer and Information Sciences and Support Services	84,968	81,563	3,405	1,222	2,572
Social Sciences	70,470	67,066	3,404	3,439	6,581
Public Administration and Social Service Professions	71,270	67,870	3,400	738	1,641
Architecture and Related Services	76,573	73,262	3,311	306	914
All disciplines	72,978	70,135	2,843	43,805	101,876
Engineering Technologies/Technicians	70,846	68,432	2,414	505	932
Biological and Biomedical Sciences	72,701	70,566	2,135	2,387	5,827
Health Professions and Related Clinical Sciences	73,272	71,583	1,689	3,278	12,365
Family and Consumer Sciences/Human Sciences	64,830	64,383	447	356	1,323
Business, Management, Marketing, and Related Support Services	92,588	92,615	-27	3,846	8,721
Area, Ethnic, Cultural, and Gender Studies	70,525	70,927	-402	334	531
Legal Professions and Studies	95,977	96,462	-485	347	1,099
Communications Technologies/Technicians and Support Services	66,873	67,612	-739	37	52
Engineering	89,428	90,382	-954	2,132	6,139
Multi/Interdisciplinary Studies	70,906	74,728	-3,822	178	516

Source: College and University Professional Association, 2009 National Faculty Salary Survey by Discipline and Rank in Four Year-Colleges and Universities.

Note: Sorted in descending order by salary differential. CUPA collects data from a different set of institutions every year; as such, caution should be taken in making year-to-year comparisons. CUPA reports average salaries based on simple averages of institutions, rather than based on the number of faculty.

to the extent that current community college initiatives increase the number of successful student outcomes.

- Faculty-student ratio: Faculty-student ratios could increase, depending on the structure of the colleges and on teaching methods. Excess capacity at some colleges, for example, could absorb increased enrollment without adding faculty members.
- Distance learning may increase productivity and faculty-student ratios as technology plays a bigger role in education. Either outcome can decrease our estimates.
- Community colleges could increase the number of certificates awarded, thus increasing completion rates in programs of one year or less. This outcome would affect enrollments less than would an increase in the number of associate's degrees.
- Proprietary schools could increase enrollments, thereby producing a larger share of the degrees and certificates counted toward meeting national goals.

Under these assumptions, it will take about 36,000 to 42,000 *additional* community college faculty members—a 29 to 35 percent annual increase—to sustain the current faculty-student ratio, and to add 3.5 million new completers in a decade (Table 12).

HIGHEST PROPORTION OF COLLEGE GRADUATES IN THE WORLD

At 60 percent, Australia had the highest number of bachelor's recipients per 100 22- and 23-year-olds—the typical age of graduation—in 2005; the comparable United States rate was 34 percent.⁶ The U.S. must, therefore, increase college enrollments to achieve President Obama's degree attainment goal, and colleges and universities will need to improve student graduation rates. These gains may already be occurring: the annual percentage of 22- and 23-year-olds completing bachelor's degrees per year increased to 40 percent in 2009.

How many faculty members must public and independent four-year institutions hire to

Table 12. Estimated Number of Community College (CC) Students, Completions, and Faculty to Achieve Five Million New AA and Certificate Attainers by 2020 (in Thousands)

Year	Current Estimates			Goal Estimates			Difference	
	FTE Students	CC Faculty	Completions	FTE Students	CC Faculty	Completions	Additional CC Faculty	Completions
2011	3,955	111	1,000	5,066	152	1,298	42	298
2012	3,993	114	1,030	5,151	155	1,319	41	289
2013	4,039	115	1,061	5,178	156	1,340	40	280
2014	4,084	117	1,091	5,201	156	1,362	39	271
2015	4,119	118	1,121	5,210	157	1,383	39	262
2016	4,154	119	1,152	5,221	157	1,405	38	253
2017	4,196	120	1,182	5,238	157	1,426	37	244
2018	4,236	121	1,212	5,265	158	1,447	37	235
2019	4,276	123	1,243	5,291	159	1,469	36	226
2020	4,317	124	1,273	5,309	160	1,490	36	217
Total			10,382			15,382		2,575

Source: JBL Associates, Inc. analysis of U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary, Completions, and Fall Enrollment surveys*, various years.

Note: This analysis assumes that the for-profit sector will sustain the production of approximately 30 percent of U.S. certificates and associate degrees; community colleges will produce the remaining 70 percent, or 3,508,500 of the five million new completers.

raise the graduation rate linearly from the current estimate of 44 bachelor's degrees per 100 people in 2011 to 60 in 2020 (Table 13)? The number of completers needed to achieve this goal was computed, along with the enrollments needed to produce the completions, based on current population estimates.⁷ The number of *additional* faculty members needed to sustain the faculty-student ratio reported in the baseline year was then determined.

U.S. colleges and universities will need to increase the number of full-time faculty members in public and independent four-year institutions by 75,000 to 220,000 annually, depending on the year—a 28 percent increase in the teaching force by 2020—to achieve this increase in bachelor's degree recipients.

CONCLUSION

Most full-time faculty members have received steady increases in salaries over the past decade—enough to keep ahead of inflation. Their purchasing power increased since the

early 1970s, though these gains were not equally distributed. Average full-time faculty salaries range from about \$40,000 to over \$130,000. These averages are aggregated; some individuals receive even lower or higher pay. Salary differences depend on geographic region, discipline, years employed, rank, type and level of institution, and gender. The existence of a collective bargaining agreement may also affect the level of pay, as may other variables such as local, regional, and national economic conditions, unemployment and labor trends, and student and family supply and demand for institutions or specific programs.

Independent universities perennially pay higher salaries than public universities, and four-year institutions pay more than two-year institutions. Of course, full professors earn the highest salaries. Business and marketing, law, and engineering faculty members are the long-time salary leaders by discipline, while faculty in humanities, literature, and the arts are among the lowest-paid. Female faculty members earn

Table 13. Estimated Number of Four-Year FTE Students, Faculty, and Bachelor's Degrees to Achieve World's Highest Proportion of College Graduates by 2020 (in Thousands)

Year	Current Estimates				Goal Estimates			Difference	
	FTE Students	Bachelor's Degrees	Faculty, Four-Year Institutions	Completion Rate	FTE Students	Bachelor's Degrees	Faculty, Four-Year Institutions	Bachelor's Degrees	Additional Faculty, Four-Year Institutions
2011	10,323	1,789	630	44%	11,553	1,908	705	119	75
2012	10,424	1,840	637	45	12,392	2,047	757	207	120
2013	10,577	1,891	646	47	12,843	2,121	784	230	138
2014	10,665	1,942	651	49	13,127	2,168	802	226	150
2015	10,808	1,993	660	51	13,427	2,218	820	224	160
2016	10,905	2,044	666	53	13,658	2,256	834	212	168
2017	11,020	2,095	673	55	13,991	2,311	854	216	181
2018	11,115	2,146	679	56	14,306	2,363	874	217	195
2019	11,210	2,197	685	58	14,515	2,397	886	200	202
2020	11,305	2,248	690	60	14,915	2,463	911	215	220
Total		20,187				22,252		2,065	

Source: JBL Associates, Inc. analysis of U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, *Salary, Completions, and Fall Enrollment surveys*, various years.

less than males; the recent increase in the salary gap is surprising. The gender disparity occurs when comparing women's and men's salaries within specific sectors and ranks. Women were much less likely to hold full professorships than were males, though their share increased over the past decade; women were more likely to be located in the lower ranks. Faculty in institutions with collective bargaining agreements generally received more pay than colleagues in non-bargaining colleges.

President Obama's challenge to increase the number of community college completions and the country's proportion of four-year college graduates will result in a large influx of enrollments. This influx, in turn, will increase the need for faculty, offerings, and facilities. The number of faculty members must increase massively over the next ten years for the United States to meet the president's student completion goals. This increase will have major implications for institutional finance and structures, including higher faculty salaries.

NOTES

¹ This erosion of purchasing power may, in part, reflect a change in definitions for these ranks that occurred in the early 1990s.

² Lee and Harmon, 1999.

³ Perna, 2001.

⁴ Faculty members in Alaska's public two-year institutions earned more than their colleagues in public four-year institutions over the last decade.

⁵ White House, 2009.

⁶ U.S. Department of Education, 2008.

⁷ U.S. Census Bureau, 2009.

REFERENCES

- College and University Professional Association. *2009 National Faculty Salary Survey by Discipline and Rank in Four Year-Colleges and Universities Report*. Knoxville, Tenn. CUPA, 2009.
- Lee, J.B. and R.T. Harmon. "Faculty Salaries: 1997-98." *The NEA 1999 Almanac of Higher Education*. Washington, D.C.: NEA, 1999.
- Office of Institutional Research, Oklahoma State University. *2008-09 Faculty Salary Survey by Discipline in Land Grant Universities*. Stillwater, Okla.: Oklahoma State University, 2009.
- Perna, L. "Sex Differences in Faculty Salaries: A Cohort Analysis." *The Review of Higher Education* 24 (3) (Spring 2001), 283-307.
- U.S. Census Bureau. *Population Projections: U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin: 2000-2050*. Available: <http://www.census.gov/population/www/projections/usinterimproj>.
- U.S. Department of Education, National Center for Education Statistics (NCES). *Digest of Education Statistics: 2008*. Table 415. "Number of Bachelor's Degree Recipients per 100 Persons of the Typical Age of Graduation, by Sex and Country: 2002 through 2005." Available: http://nces.ed.gov/Programs/digest/d08/tables/dt08_415.asp.
- _____. *Integrated Postsecondary Education Data System (IPEDS). 2008-09 Salary Survey*, early release. Washington, D.C.: NCES, 2009.
- White House, The. "Excerpts of President Barack Obama's remarks at Macomb Community College, Warren, Michigan. July 14, 2009." Available: http://www.whitehouse.gov/the_press_office/Excerpts-of-the-Presidents-remarks-in-Warren-Michigan-and-fact-sheet-on-the-American-Graduation-Initiative.