

Appendix 1

Committee on Strategic and Financial Planning (CoSFP) Goals and Values for Budget Model August 24, 2023

GOALS:

Our goals are greater transparency and accountability in budget decisions and to increase the effectiveness of all CSU employees in achieving the university's core mission as the land-grant university of Colorado.

VALUES:

- 1) **CORE ACADEMIC MISSION FIRST:** As the land-grant university of Colorado, our core academic missions are “teaching, research, service and extension for the benefit of the citizens of Colorado, the United States, and the world.”¹ The budget model is only a tool to achieve our mission.
- 2) **COMMON GOOD:** The model should prioritize what is best for the University and our core academic mission instead of individual units.
- 3) **UNIVERSITY AS AN ECOSYSTEM:** The model should acknowledge and promote interdependence among individual units. As the principle of shared governance dictates, faculty are the primary stakeholder in decision-making concerning the curriculum and the elimination of programs cannot be solely made based on budgetary concerns.
- 4) **DIVERSITY, EQUITY, INCLUSION AND SOCIAL JUSTICE (DEISJ):** The budget model should continue to support DEISJ goals.
- 5) **STUDENT SUCCESS:** The model should encourage initiatives for attracting, retaining, and supporting quality students and broad diversity goals.
- 6) **FACULTY AND STAFF SUCCESS:** The model should encourage initiatives for recruiting, retaining, and advancing quality faculty and staff and establish compensation mechanisms to address both internal equity goals and external market demands.
- 7) **INNOVATION, CREATIVITY, and FLEXIBILITY:** The model should provide opportunities for innovative ideas, such as interdisciplinary and multidisciplinary initiatives, as well as for substantiable growth and agility.
- 8) **TRANSPARENCY, ACCOUNTABILITY, and SHARED GOVERNANCE:** Both the budget model itself and the development process should maintain transparency, accountability, and shared governance. The process should be unhurried.
- 9) **SIMPLICITY:** The model should allow for informative and understandable calculations and projections.

¹ CSU System Colorado State University, <https://csusystem.edu/we-are-colorado/>

Appendix 2

Employee Compensation Plan -- August 2022

Guiding Principles:

- Comprehensive plan for all employees: administrative professionals, graduate students and all faculty in all colleges.
- Aim for:
 - Internal **Equity**
 - External **Competitiveness**
 - Eliminating **Compression**
 - Decreasing Budget Leverage when it causes unsustainable risk and disincentivizes growth
 - Living wage for all (define how?) – prioritize lowest paid employees.
- Central Administration develops 3-year funding plan (*?BOG 1x and bridge to base?*) and percent allocation to each department/unit each year. Total amount for each year based on CUPA R1 and AON targets, adjusting minimum floor salaries, equity, compression and cost of living adjustments.
- Each department/unit develops plan for approval by dean/unit lead, provost, HR and OEO
- Individual employee performance must be taken into account
- Regardless of performance all employees deserve cost of living and compression adjustments
- Academic department national ranking, degree offerings, recruitment and retention (of faculty and students) should be taken into account for getting above 95% of CUPA R1. For example, departments that don't offer doctoral degrees or do as much research as CUPA R1 peers.
- Employees paid with non-state appropriated funds (e.g., CSUO, 53, RARSP, gifts) should be included in compensation improvements but must be funded by non-state appropriated funds.

Phase 1 (22-23):

- Raise minimum salary floors for CCAF for increases in cost of living since FY21-22 and commit to adjusting for COL each year.
- Raise all APs to \$50k (12 month) minimum floor salary and commit to adjusting for COL each year.
- AON adjustments begin for lowest paid and most out of alignment.
- Raise all faculty salaries to 90% of CUPA R1 (or appropriate peers) and work on equity and compression.
- For departments already at 90% of CUPA R1s allocate funding to decrease leveraging and work on equity and compression adjustments. Assuming CUPA R1 data keeping up with cost of living.
- Work with Faculty Council to add two more ranks above full professor (based on national models) and build 10% raises into the base budget. Develop plan on how to handle current full professors – limit number per department each year. Prioritize top

performers and departments where compression is worst. Use 5-year post-tenure comprehensive review process as a guide.

- Implement new Retention Guidelines to reduce number of retentions and increase employee satisfaction.

Phase 2 (23-24):

- Aim for 95% of CUPA R1 for all faculty (or appropriate peers) and work on equity and compression.
- For departments already at 90% of CUPA R1s allocate funding to decrease leveraging and work on equity and compression adjustments. Assuming CUPA R1 data keeping up with cost of living.
- Continue AON adjustments.
- Continue COL adjustments.
- First round of faculty promotions to higher ranks.

Phase 3 (24-25):

- All faculty at 95% CUPA R1 with nuances accounted for *and perhaps move top-ranked programs to 100% of CUPA or higher.*
- Complete AON adjustments.
- Continue COL adjustments.
- Continue equity and compression adjustments.
- Next round of faculty promotions to higher ranks.

State Classified Employees

- Hire more FTE dedicated to Advocating and negotiating for SC employees.
- Work with CO WINS on living wage/minimum salaries, COL adjustments, etc.

Graduate Student Employees

- Work with Graduate School to increase minimum stipends and funding for stipends.

FY19 Faculty Salary Equity Study

Executive Summary



PURPOSE

Institutional Research, Planning and Effectiveness conducts the Salary Equity Study annually to assess potential salary differences by gender or minority status for CSU tenured and tenure-track faculty. It is just one of many salary studies completed throughout the year. It is not intended to assess the salary of any individual faculty.

METHODOLOGY

Two regression models at each rank (one for gender and one for minority status) are used. They were developed by the Salary Equity Committee for use from FY17 through FY19.

VARIABLES

Dependent

The models use a logarithm of the 9-month salary as the dependent variable. The salaries for 12-month contracts are converted at 0.75 for standardization.

Independent

Gender
Minority Status
Years in Rank
Department

FY19 single year analysis, key findings:

- No statistically significant between-group differences in salary were identified at any rank by gender or minority status.

FY15-FY19 change over time analysis, key findings:

- In FY15, FY16 and FY17, the salary gap for female Full Professors was statistically significant but has narrowed and is no longer statistically significant. In FY15, female Full Professors earned 92.2% of what their male colleagues earned; by FY19, this increased to 97%.
- Over the last five years, there were no statistically significant differences in salary by gender for Assistant or Associate Professors
- In FY16 and FY17, the salary gap for minority Associate Professors was statistically significant but has narrowed and is no longer statistically significant. In FY17, minority Associate Professors earned 94.6% of what their non-minority colleagues earned; by FY19, this increased to 98.6%.
- Over the last five years, there were no statistically significant differences in salary by minority status for Assistant or Full Professors

The full salary equity results can be accessed online at: <http://www.ir.colostate.edu/data-reports/faculty/salary-equity/>



FY19 Faculty Salary Equity Analysis

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Background

In the summer of 2015, with the full involvement of the President's Commission on Women and Gender Equity (PCWGE), the Standing Committee on the Status of Women Faculty (SCSWF) and Faculty Council, a Salary Equity Committee was formed to look at salary equity issues, including best practices and an equitable salary model for use through FY19. In addition to members of the PCWGE and SCSWF, the Committee included experts both internal and external to CSU, including representatives from CSU's Office of

Human Resources (HR); the Office of Institutional Research, Planning and Effectiveness (IRP&E); and faculty members with subject matter expertise. Using the methodology selected by the Committee, the current analysis assesses the association of gender and minority status with tenured and tenure-track faculty salaries at CSU. A separate report about the Committee's process is available on the IRP&E web site.

It is important to note that, although the models reflect best practices in the analysis of salary equity, there is

unexplained variance. Therefore, any between-group differences by gender or minority status do not confirm the existence or absence of salary inequities; as discussed at length by the Committee, there are many potential reasons for group differences.

The models do not address the salary of any specific individual faculty member. The assessment of individual salary equity is completed through a separate exercise in which in-depth attempts are made to understand individual performance and salary. That exercise is completed annually.

Methodology

Population

Tenured and tenure-track faculty with active appointments in academic departments or the Library are included for the current analysis.

Faculty on transitional appointments are excluded; those on sabbatical are included. Department Heads are included. Assistant Deans, Associate Deans and Deans are excluded from the population as is one faculty member who also serves as a Senior Associate Athletic Director.

Data Fidelity

In preparation for this analysis, multiple efforts were made to address data fidelity. Faculty were invited to review their demographic data through the self-service HR application. Further, demographic data and the other independent variables included in the salary equity analysis, are accessible through an online portal hosted by IRP&E. This portal was created in response to faculty feedback in FY17. Faculty were urged to correct their data as necessary with HR or IRP&E. Additionally, Curriculum Vitae reviews

were also completed and individual faculty were contacted via phone and/or email if questions still remained (especially related to time in rank).

Dependent Variable

The dependent variable for each regression model is the logarithm of the 9-month salary. The 9-month salary is calculated for 12-month contracts at a 0.75 conversion. The standardized salaries are then subjected to a logarithmic transformation.

Independent Variables

1. Gender: Categorical (female, male)
2. Minority Status: Categorical (minority, non-minority) with minority defined as self-reported Black/ African American, Latino/a, Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, Two or More Races/Ethnicity. Non-minority is defined as White or Unreported.
3. Years in Current Rank (including appointments at accredited institutions prior to CSU):
 - a. Assistant Professor years in rank (linear)
 - b. Associate Professor years in rank (linear and quadratic)

- c. Full Professor years in rank (linear, quadratic and cubic)
4. Department: Categorical (yes, no) for each academic department at CSU and the Library

The current models do not include any variables related to performance because of data collection and validation issues.

Analysis Technique

A separate regression model for each rank is used to assess how much salary variance is related to each of the above independent variables. The models were selected after significant deliberation of best practices in salary equity analysis at other institutions and the current availability of accurate data.

The Committee decided that insufficient counts prohibited the inclusion of an interaction effect in the statistical analysis. The gender models exclude the minority status variable and vice versa.

The relationship between the log salary (dependent variable) and years in rank (independent variable) differs by rank and is therefore represented differently.

FY19 Faculty Salary Equity Analysis

The relationship for Assistant Professors is linear and increasing; as years in rank increase so does log salary (Appendix B, Figure 1).

The relationship for Associate Professors is quadratic²; it increases to a point but then decreases slightly (Appendix B, Figure 2).

The relationship for Full Professors is cubic³; it increases more quickly immediately after appointment and again in later years with a relative plateau in between (Appendix B, Figure 3).

The significance of the model results are expressed in terms of the p value metric; lower values are more significant, with a significance level set at the standard of $p < 0.05$. Regression coefficients are shown in Appendix A.

¹ The logarithmic transformation helps to better approximate a normal distribution in order to meet the assumptions of the statistical analysis. It also aids in the interpretation of the model coefficients for categorical variables (e.g., gender or minority status) by representing percentage differences in salary. For example, under this transformation, a positive 0.05 independent variable coefficient corresponds to a +5% difference in salary between groups.

² A quadratic function is stated as $f(x) = ax^2 + bx + c$ where the resulting graph is a basic "U" shape.

³ A cubic function is stated as $f(x) = ax^3 + bx^2 + cx + d$ where the resulting graph is a basic "S" shape.



FY19 Results

Descriptive Statistics

Demographic frequency counts by college and rank are displayed in Table 1. The study included a total of 1,098 faculty. Overall, females account for 38% of faculty included in the current study; minority faculty account for 20%. There are lower numbers of female and minority faculty in Science, Technology, Engineering and Math (STEM) than male and non-minority faculty. This is especially true at the Full Professor rank. This distribution reflects larger societal patterns.

Table 1
Demographic Frequency Counts by College and Rank

College	Rank	Female	Male	Minority	Non-Minority	Total
College of Agricultural Sci	Assistant Professor	10	17	7	20	27
	Associate Professor	11	16	6	21	27
	Professor	11	43	3	51	54
College of Business	Assistant Professor	5	11	5	11	16
	Associate Professor	8	14	6	16	22
	Professor	6	21	2	25	27
College of Health and Human Sci	Assistant Professor	27	11	14	24	38
	Associate Professor	19	15	7	27	34
	Professor	26	16	2	40	42
College of Liberal Arts	Assistant Professor	36	40	20	56	76
	Associate Professor	41	42	19	64	83
	Professor	35	53	13	75	88
College of Natural Sciences	Assistant Professor	7	30	10	27	37
	Associate Professor	17	21	9	29	38
	Professor	31	73	23	81	104
College of Vet Med & Biomed Sci	Assistant Professor	20	12	9	23	32
	Associate Professor	31	29	8	52	60
	Professor	22	60	6	76	82
Library	Assistant Professor	3			3	3
	Associate Professor	7	1	1	7	8
	Professor	3			3	3
Walter Scott, Jr. College of Engineering	Assistant Professor	8	22	13	17	30
	Associate Professor	8	25	11	22	33
	Professor	5	54	13	46	59
Warner College of Natural Resources	Assistant Professor	6	12	2	16	18
	Associate Professor	12	12		24	24
	Professor	7	26	7	26	33
Total	Assistant Professor	122	155	80	197	277
	Associate Professor	154	175	67	262	329
	Professor	146	346	69	423	492
Grand Total		422	676	216	882	1098

FY19 Faculty Salary Equity Analysis

Table 2 displays the interquartile salary range for each department by rank. Generally, the lower salaries are in the library and liberal arts/humanities departments and the higher salaries are located in STEM departments. Combined with the faculty counts in Table 1, it is clear that female and/or minority faculty are more heavily concentrated in lower paying departments. Therefore, in order to isolate the impact of gender or minority status, department is statistically controlled for in the regression models.

Table 2
Interquartile Salary Range by Department

Department	25th Percentile			50th Percentile			75th Percentile		
	Assistant Professor	Associate Professor	Professor	Assistant Professor	Associate Professor	Professor	Assistant Professor	Associate Professor	Professor
Accounting	\$174,862	\$139,701	\$185,000	\$178,602	\$141,116	\$187,848	\$183,500		
Agricultural and Reso	\$83,821	\$100,169	\$108,300	\$89,022	\$101,860	\$112,791	\$93,103	\$102,480	\$135,527
Animal Sciences	\$80,565	\$87,180	\$101,630	\$83,760	\$91,060	\$115,444	\$86,833	\$97,631	\$154,730
Anthropology	\$64,457	\$74,568	\$88,214	\$67,000	\$76,792	\$96,047	\$72,500	\$78,949	\$107,706
Art and Art History	\$60,988	\$63,477	\$77,183	\$63,343	\$68,136	\$80,013	\$63,400	\$69,170	\$91,207
Atmospheric Science	\$102,700	\$122,650	\$148,500	\$107,150	\$124,000	\$177,200		\$127,150	\$195,000
Bioagricultural Scien	\$83,500		\$98,913	\$83,610		\$115,563	\$83,620		\$151,014
Biochemistry and Mole	\$80,600	\$89,525	\$107,900	\$85,200	\$95,250	\$115,500		\$97,900	\$139,975
Biology	\$81,621	\$86,208	\$101,720	\$82,250	\$90,660	\$118,560	\$83,894	\$91,843	\$130,243
Biomedical Sciences	\$85,308	\$89,374	\$116,606	\$88,150	\$90,896	\$137,704	\$90,010	\$94,562	\$156,071
Chemical and Biologic	\$97,000	\$115,900	\$130,300	\$99,700	\$117,200	\$148,500		\$122,000	\$165,500
Chemistry	\$86,000	\$101,614	\$119,258	\$88,070	\$109,327	\$134,910	\$91,202	\$113,530	\$155,610
Civil and Environment	\$92,800	\$110,000	\$137,800	\$94,350	\$116,500	\$148,300	\$95,150	\$118,700	\$169,600
Clinical Sciences	\$87,544	\$96,105	\$116,149	\$90,015	\$99,301	\$125,876	\$92,717	\$102,594	\$140,451
Communication Studies	\$68,465	\$78,638	\$85,571	\$68,546	\$79,135	\$100,962	\$72,325	\$80,179	\$107,981
Computer Information	\$144,742	\$144,962	\$150,827	\$146,684	\$165,794	\$160,801			\$164,432
Computer Science	\$108,083	\$114,650	\$132,500	\$110,700	\$119,325	\$138,640	\$113,197		\$141,593
Construction Managem	\$76,238	\$84,218		\$79,948	\$88,708		\$86,057	\$97,215	
Design and Merchandis	\$73,584	\$81,988	\$99,164	\$76,348	\$83,059	\$106,952	\$84,937		\$129,004
Economics	\$94,926	\$105,133	\$113,997	\$95,420	\$106,146	\$124,863		\$109,933	\$158,226
Ecosystem Science and	\$73,000	\$82,067	\$103,864	\$75,294	\$82,649	\$112,776		\$83,891	\$132,618
Electrical and Comput	\$97,375	\$113,200	\$143,225	\$98,800	\$115,300	\$154,600	\$100,900	\$117,550	\$190,400
English	\$62,604	\$74,811	\$85,029	\$65,549	\$76,049	\$88,508	\$67,704	\$82,591	\$95,344
Environmental and Rad	\$86,763	\$99,268	\$115,769	\$93,269	\$102,210	\$126,954	\$100,971	\$113,284	\$153,569
Ethnic Studies	\$65,500	\$75,225	\$90,426	\$66,000	\$77,607	\$91,828		\$101,718	
Finance and Real Esta	\$165,654	\$133,168	\$150,234	\$182,956	\$161,000	\$179,310	\$184,228	\$177,317	\$210,793
Fish, Wildlife and Co	\$77,100	\$82,249	\$95,529	\$77,100	\$84,910	\$105,825	\$77,100	\$88,521	\$122,489
Food Science and Huma		\$81,127	\$92,225		\$85,554	\$96,786		\$94,576	\$126,347
Forest & Rangeland St	\$74,095	\$82,988	\$92,053	\$74,413	\$82,988	\$101,288	\$75,083		\$137,012
Geosciences	\$75,469	\$80,771	\$107,888	\$76,884	\$83,439	\$118,749	\$79,480	\$98,755	\$126,674
Health and Exercise S	\$76,603	\$85,060	\$106,240	\$77,621	\$87,459	\$122,965	\$78,500		\$134,181
History	\$61,508	\$71,643	\$82,679	\$62,636	\$75,512	\$86,181	\$63,500		\$101,746

Table 2 (cont.)
 Interquartile Salary Range by Department

Department	25th Percentile			50th Percentile			75th Percentile		
	Assistant Professor	Associate Professor	Professor	Assistant Professor	Associate Professor	Professor	Assistant Professor	Associate Professor	Professor
Horticulture and Land	\$78,000	\$82,168	\$106,087	\$78,500	\$90,290	\$107,872		\$100,078	\$132,082
Human Development and	\$74,052	\$86,829	\$95,889	\$75,750	\$89,769	\$108,847		\$93,235	\$127,085
Human Dimensions of N	\$70,252	\$85,776	\$89,500	\$71,379	\$88,773	\$98,220	\$76,347	\$90,219	\$119,070
Journalism and Media	\$63,500	\$72,622	\$86,689	\$65,890	\$78,047	\$104,427	\$67,306	\$82,538	\$109,663
Languages, Literature	\$61,334	\$64,213	\$82,976	\$62,565	\$64,257	\$89,624		\$67,682	\$92,653
Library	\$41,640	\$48,588	\$61,214	\$41,640	\$54,572	\$63,389		\$67,489	
Management	\$141,143	\$128,032	\$167,260	\$142,723	\$148,166	\$187,487		\$165,025	\$198,708
Marketing	\$151,848	\$147,441	\$160,283	\$153,602	\$162,323	\$161,816		\$167,582	\$196,042
Mathematics	\$79,436	\$88,160	\$102,489	\$81,741	\$91,998	\$110,670	\$82,760	\$93,717	\$145,506
Mechanical Engineerin	\$95,000	\$106,700	\$140,725	\$97,100	\$116,900	\$149,050	\$98,675	\$121,400	\$168,769
Microbiology, Immunol	\$84,956	\$93,136	\$110,665	\$86,690	\$96,314	\$116,890	\$90,000	\$99,314	\$139,553
Occupational Therapy	\$75,172	\$88,602	\$109,113	\$76,948	\$89,744	\$112,500	\$79,552	\$92,298	
Philosophy	\$56,534	\$69,850	\$78,605	\$66,241	\$83,024	\$79,000	\$72,684	\$103,148	\$114,281
Physics	\$76,475	\$93,811	\$112,835	\$77,530	\$99,320	\$119,468	\$82,302	\$105,905	\$128,137
Political Science	\$67,747	\$78,019	\$100,755	\$69,644	\$82,897	\$112,580	\$71,554		\$115,317
Psychology	\$74,000	\$86,238	\$100,668	\$77,180	\$88,494	\$107,594		\$90,164	\$120,350
School of Education	\$71,109	\$78,270	\$96,175	\$71,977	\$82,485	\$101,866	\$76,600	\$85,909	\$103,117
School of Music, Thea	\$59,734	\$64,356	\$78,156	\$61,321	\$66,489	\$89,911	\$62,824	\$75,713	\$103,534
School of Social Work	\$66,411			\$67,909			\$72,115		
Sociology	\$66,375	\$78,536	\$100,944	\$68,277	\$79,702	\$106,512	\$69,763	\$80,379	\$139,939
Soil and Crop Science	\$83,755	\$74,517	\$113,060	\$88,690	\$85,430	\$132,040	\$90,000	\$93,100	\$141,345
Statistics	\$90,516		\$125,916	\$92,990		\$131,120	\$93,917		\$146,590

FY19 Faculty Salary Equity Analysis

Model Statistics

At the institutional level, each of the models is statistically significant indicating the variables of department, years in current rank and either gender or minority status are significantly associated with salary. Tables 3 and 4 show the regression model results by rank.

The second column, the adjusted R squared, is the percentage of salary variance that is explained by each model. The salary variance explained by the models is inversely related to

rank. However, all of the models are highly significant indicating a good fit to the data ($p = 0.0000$).

Use of the log salary as the dependent variable (instead of 9-month salary) allows for an interpretation of the salary of one group as a percentage of another group. The third column of Table 3 displays female faculty salary as a percent of male while the third column in Table 4 displays the salary for minority faculty as a percentage of non-minority faculty. The salary difference by gender is largest at the

Full Professor rank (3.0%) and by minority status at the Full Professor rank (1.4%).

The fourth column in Tables 3 and 4 provides the p value for the gender or minority status coefficients after controlling for department and years in rank. None of the between-group differences are statistically significant ($p > .05$).

Table 3

Between-Group Salary Differences by Gender (after controlling for years in rank and department)

Rank	Gender Models		
	Salary Variance Explained (Adjusted R Squared)	Female Salary as a Percent of Male	Significance Level (p value)
Assistant Professor	96.0%	100.0%	0.957
Associate Professor	83.9%	99.7%	0.792
Full Professor	61.9%	97.0%	0.066

Table 4

Between-Group Salary Differences by Minority Status (after controlling for years in rank and department)

Rank	Minority Status Models		
	Salary Variance Explained (Adjusted R Squared)	Minority Salary as a Percent of Non-Minority	Significance Level (p value)
Assistant Professor	96.0%	99.5%	0.479
Associate Professor	84.0%	98.6%	0.341
Full Professor	61.7%	101.4%	0.536

Trends over Time

Descriptive Statistics

In this section, the FY19 results are reiterated and shown with a retroactive analysis for FY15-18 using the FY19 population parameters and modeling methods.

Table 5 displays the demographic frequency counts by rank and year for

tenured/tenure-track faculty. Overall, the number of female and minority faculty has increased from FY15 to FY19 and each of these subgroups has increased as a proportion of the total.

However, this finding is not consistent at each rank. At the Assistant Professor rank, females have declined slightly as a percent of the rank total.

The proportion of females as a percent of the other ranks has increased as has the proportion of minority faculty as a percent of the total at each rank.

Table 5
Demographic Frequency Counts by Rank and Year

Rank	Fiscal Year	Female	Male	Minority	Non-Minority	Total
Assistant Professor	FY15	108	116	55	169	225
	FY16	111	115	57	169	227
	FY17	113	138	56	195	251
	FY18	120	140	62	198	260
	FY19	122	155	80	197	277
Associate Professor	FY15	163	217	72	308	380
	FY16	162	206	69	299	368
	FY17	154	207	69	292	361
	FY18	149	203	72	280	352
	FY19	154	175	67	262	329
Full Professor	FY15	113	299	49	363	412
	FY16	117	308	54	371	425
	FY17	127	303	55	375	430
	FY18	131	302	54	379	433
	FY19	146	346	69	423	492
Total	FY15	384	632	176	840	1017
	FY16	390	629	180	839	1020
	FY17	394	648	180	862	1042
	FY18	400	645	188	857	1045
	FY19	422	676	215	882	1098

FY19 Faculty Salary Equity Analysis

Model Statistics

As shown in Table 6, over the last five years, there have been two ranks with statistically significant between-group differences. Female Full Professors have, in three of the last five years, had a statistically significantly lower average salary than their male counterparts after controlling for department and years in rank. Minority Associate Professors have, in two of five years, had a statistically significantly lower average salary than their non-minority counterparts after controlling for department and years in rank. In each of these situations, the gap has narrowed and has not been statistically significant since FY18.

Table 6

Regression Results by Rank and Year

Rank and Fiscal Year		Gender			Minority Status		
		Salary Variance Explained (Adjusted R ²)	Female Salary as a Percent of Male	Gender Difference (pvalue)	Salary Variance Explained (Adjusted R ²)	Minority Salary as a Percent of Non-Minority	Minority Difference (pvalue)
Assistant Professor	FY15	94.2%	99.2%	0.395	94.2%	100.1%	0.962
	FY16	93.2%	98.6%	0.147	93.2%	98.3%	0.121
	FY17	95.2%	98.8%	0.160	95.2%	98.5%	0.100
	FY18	96.4%	99.3%	0.371	96.4%	99.6%	0.618
	FY19	96.0%	100.0%	0.957	96.0%	99.5%	0.479
Associate Professor	FY15	82.6%	99.8%	0.845	82.8%	97.2%	0.067
	FY16	82.7%	100.3%	0.801	83.2%	95.2%	0.002
	FY17	80.4%	99.9%	0.933	81.3%	94.6%	< 0.001
	FY18	84.9%	98.2%	0.109	84.9%	97.8%	0.117
	FY19	83.9%	99.7%	0.792	84.0%	98.6%	0.341
Full Professor	FY15	53.7%	92.2%	< 0.001	52.0%	103.9%	0.169
	FY16	55.3%	93.6%	0.001	54.1%	102.7%	0.300
	FY17	59.5%	95.1%	0.006	58.8%	102.9%	0.241
	FY18	59.2%	96.6%	0.056	58.8%	101.9%	0.458
	FY19	61.9%	97.0%	0.066	61.7%	101.4%	0.536

Shaded cells indicate statistically significant results.

Discussion

The current analysis represents best practices in salary analysis as recommended by the Salary Equity Committee in 2015. Although there are no statistically significant between-group differences found in FY19, salary equity is an issue that continues to be central to the institution's goal of being the best place to work and learn.

Assessment of salary equity is ongoing and not accomplished with any single analysis. The current study may best be interpreted in conjunction with salary and utilization analyses completed by the Office of Equal Opportunity and the Office of Institutional Research, Planning, and Effectiveness.

Faculty are encouraged to review their HR data through either the HR

self-service portal or with their departmental HR liaison.

Please contact the Office of Institutional Research, Planning, and Effectiveness with any questions or comments related to the current analysis.

Appendix A Regression Models

Each of the six tables below display the regression model coefficients for each rank by gender or minority status. All variables are categorical (0 = no, 1 = yes) except the constant and the years in rank (linear, quadratic and cubic). The equation for each model can be derived as follows: $\log \text{ salary} = \text{constant} + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4\dots$

Because of the categorical nature of the department variables, all but one will equal zero so the equations can be shortened to the following (where female = 1 and male = 0; minority = 1 and non-minority = 0)

Full Professor

$$\text{Log Salary} = 11.655 + (\text{gender} * -0.030) + (\text{department coefficient}) + (\text{fullyrs} * 0.024) + (\text{fullyrs}^2 * -0.001) + (\text{fullyrs}^3 * 1.072E-05)$$

$$\text{Log Salary} = 11.645 + (\text{minority} * 0.014) + (\text{department coefficient}) + (\text{fullyrs} * 0.024) + (\text{fullyrs}^2 * -0.001) + (\text{fullyrs}^3 * 1.065E-05)$$

Associate Professor

$$\text{Log Salary} = 11.471 + (\text{gender} * -0.003) + (\text{department coefficient}) + (\text{assocys} * 0.001) + (\text{assocys}^2 * .000)$$

$$\text{Log Salary} = 11.470 + (\text{minority} * -0.014) + (\text{department coefficient}) + (\text{assocys} * 0.001) + (\text{assocys}^2 * .000)$$

Assistant Professor

$$\text{Log Salary} = 11.476 + (\text{gender} * 0.000) + (\text{department coefficient}) + (\text{assistys} * 0.002)$$

$$\text{Log Salary} = 11.478 + (\text{minority} * -0.005) + (\text{department coefficient}) + (\text{assistys} * 0.002)$$

FY19 Faculty Salary Equity Analysis

Appendix A

Model Coefficients

Model: Professor by Gender	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	11.655	0.031		381.331	0.000
Professor Female	-0.030	0.017	-0.058	-1.841	0.066
Accounting	0.445	0.090	0.144	4.958	0.000
Agricultural and Reso	-0.065	0.053	-0.038	-1.209	0.227
Animal Sciences	-0.062	0.051	-0.038	-1.208	0.228
Anthropology	-0.251	0.062	-0.124	-4.059	0.000
Art and Art History	-0.455	0.071	-0.189	-6.382	0.000
Atmospheric Science	0.271	0.051	0.167	5.273	0.000
Bioagricultural Scien	-0.039	0.047	-0.027	-0.817	0.414
Biochemistry and Mole	-0.068	0.056	-0.038	-1.215	0.225
Biology	-0.053	0.043	-0.043	-1.255	0.210
Biomedical Sciences	0.019	0.047	0.013	0.404	0.686
Chemical and Biologic	0.164	0.062	0.081	2.632	0.009
Chemistry	0.077	0.046	0.055	1.666	0.097
Civil and Environment	0.176	0.047	0.126	3.741	0.000
Communication Studies	-0.245	0.066	-0.112	-3.725	0.000
Computer Information	0.185	0.079	0.069	2.334	0.020
Computer Science	0.100	0.047	0.069	2.109	0.036
Construction Manageme	0.173	0.151	0.032	1.146	0.252
Design and Merchandis	-0.137	0.072	-0.057	-1.896	0.059
Economics	0.023	0.056	0.013	0.414	0.679
Ecosystem Science and	-0.059	0.062	-0.029	-0.952	0.342
Electrical and Comput	0.186	0.045	0.137	4.105	0.000
English	-0.308	0.048	-0.213	-6.421	0.000
Environmental and Rad	0.027	0.053	0.016	0.503	0.615
Ethnic Studies	-0.255	0.109	-0.067	-2.350	0.019
Finance and Real Esta	0.292	0.066	0.133	4.419	0.000
Fish, Wildlife and Co	-0.216	0.056	-0.120	-3.872	0.000
Food Science and Huma	-0.217	0.066	-0.099	-3.286	0.001
Forest & Rangeland St	-0.145	0.066	-0.066	-2.205	0.028
Geosciences	-0.107	0.071	-0.045	-1.505	0.133
Health and Exercise S	-0.036	0.066	-0.017	-0.553	0.581
History	-0.326	0.059	-0.171	-5.573	0.000
Horticulture and Land	-0.112	0.053	-0.066	-2.104	0.036
Human Development and	-0.106	0.052	-0.065	-2.030	0.043
Human Dimensions of N	-0.217	0.067	-0.099	-3.264	0.001
Journalism and Media	-0.251	0.071	-0.105	-3.534	0.000
Languages, Literature	-0.390	0.079	-0.145	-4.958	0.000
Library	-0.607	0.090	-0.196	-6.712	0.000

Model: Professor by Gender (cont.)	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
Management	0.369	0.056	0.205	6.617	0.000
Marketing	0.271	0.071	0.113	3.810	0.000
Mathematics	-0.058	0.048	-0.038	-1.186	0.236
Mechanical Engineerin	0.225	0.054	0.132	4.205	0.000
Microbiology, Immunol	-0.006	0.040	-0.006	-0.160	0.873
Occupational Therapy	-0.022	0.090	-0.007	-0.246	0.806
Philosophy	-0.306	0.063	-0.151	-4.848	0.000
Physics	-0.093	0.060	-0.049	-1.555	0.121
Political Science	-0.163	0.059	-0.086	-2.788	0.006
Psychology	-0.104	0.043	-0.083	-2.415	0.016
School of Education	-0.191	0.054	-0.112	-3.546	0.000
School of Music, Thea	-0.347	0.058	-0.182	-5.943	0.000
Sociology	-0.121	0.073	-0.050	-1.650	0.100
Soil and Crop Science	-0.015	0.056	-0.008	-0.262	0.793
Statistics	0.086	0.062	0.043	1.404	0.161
FULLYRS	0.024	0.005	0.854	5.036	0.000
FULLYRS2	-0.001	0.000	-1.043	-2.822	0.005
FULLYRS3	0.000	0.000	0.406	1.768	0.078

FY19 Faculty Salary Equity Analysis

Model: Associate by Gender	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	11.471	0.023		497.347	0.000
Associate Female	-0.003	0.011	-0.007	-0.264	0.792
Accounting	0.438	0.057	0.185	7.699	0.000
Agricultural and Reso	0.039	0.040	0.025	0.987	0.325
Animal Sciences	-0.038	0.040	-0.024	-0.958	0.339
Anthropology	-0.222	0.045	-0.121	-4.907	0.000
Art and Art History	-0.322	0.034	-0.257	-9.551	0.000
Atmospheric Science	0.264	0.045	0.143	5.817	0.000
Bioagricultural Scien	-0.014	0.093	-0.003	-0.153	0.878
Biochemistry and Mole	-0.018	0.049	-0.009	-0.365	0.715
Biology	-0.057	0.042	-0.034	-1.353	0.177
Biomedical Sciences	-0.008	0.040	-0.005	-0.211	0.833
Chemical and Biologic	0.213	0.045	0.116	4.687	0.000
Chemistry	0.118	0.045	0.064	2.618	0.009
Civil and Environment	0.202	0.036	0.146	5.531	0.000
Clinical Sciences	0.045	0.029	0.047	1.570	0.118
Communication Studies	-0.187	0.050	-0.091	-3.783	0.000
Computer Information	0.515	0.056	0.218	9.153	0.000
Computer Science	0.221	0.067	0.076	3.302	0.001
Construction Managemen	-0.068	0.042	-0.040	-1.612	0.108
Design and Merchandis	-0.142	0.067	-0.049	-2.113	0.036
Economics	0.131	0.042	0.078	3.108	0.002
Ecosystem Science and	-0.144	0.045	-0.078	-3.192	0.002
Electrical and Comput	0.183	0.046	0.100	4.013	0.000
English	-0.205	0.034	-0.164	-6.098	0.000
Environmental and Rad	0.094	0.033	0.081	2.849	0.005
Ethnic Studies	-0.122	0.045	-0.066	-2.710	0.007
Finance and Real Esta	0.488	0.045	0.265	10.836	0.000
Fish, Wildlife and Co	-0.117	0.045	-0.064	-2.597	0.010
Food Science and Huma	-0.096	0.036	-0.069	-2.650	0.009
Forest & Rangeland St	-0.143	0.056	-0.060	-2.548	0.011
Geosciences	-0.064	0.040	-0.041	-1.611	0.108
Health and Exercise S	-0.099	0.056	-0.042	-1.755	0.080
History	-0.231	0.067	-0.080	-3.454	0.001
Horticulture and Land	-0.051	0.040	-0.033	-1.280	0.202
Human Development and	-0.062	0.050	-0.030	-1.237	0.217
Human Dimensions of N	-0.072	0.049	-0.035	-1.453	0.147
Journalism and Media	-0.209	0.042	-0.124	-4.994	0.000
Languages, Literature	-0.358	0.040	-0.230	-9.055	0.000
Library	-0.519	0.038	-0.355	-13.771	0.000

Model: Associate by Gender (cont.)	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
Management	0.442	0.040	0.283	11.182	0.000
Marketing	0.507	0.049	0.247	10.273	0.000
Mathematics	-0.048	0.038	-0.033	-1.273	0.204
Mechanical Engineerin	0.209	0.037	0.151	5.692	0.000
Occupational Therapy	-0.052	0.045	-0.028	-1.152	0.250
Philosophy	-0.129	0.050	-0.063	-2.597	0.010
Physics	0.067	0.046	0.036	1.462	0.145
Political Science	-0.148	0.056	-0.062	-2.638	0.009
Psychology	-0.061	0.040	-0.039	-1.538	0.125
School of Education	-0.147	0.050	-0.071	-2.960	0.003
School of Music, Thea	-0.311	0.031	-0.279	-9.874	0.000
School of Social Work	-0.140	0.093	-0.034	-1.505	0.134
Sociology	-0.185	0.045	-0.100	-4.099	0.000
Soil and Crop Science	-0.116	0.045	-0.063	-2.561	0.011
Statistics	0.097	0.093	0.024	1.045	0.297
ASSOCYRS	0.001	0.002	0.034	0.577	0.565
ASSOCYRS2	0.000	0.000	-0.130	-2.260	0.025

FY19 Faculty Salary Equity Analysis

Model: Assistant by Gender	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	11.476	0.013		860.750	0.000
Assistant Female	0.000	0.007	-0.001	-0.053	0.957
Accounting	0.614	0.025	0.339	24.288	0.000
Agricultural and Reso	-0.101	0.024	-0.061	-4.283	0.000
Animal Sciences	-0.145	0.024	-0.087	-6.081	0.000
Anthropology	-0.352	0.028	-0.174	-12.744	0.000
Art and Art History	-0.435	0.022	-0.283	-19.371	0.000
Atmospheric Science	0.099	0.037	0.035	2.669	0.008
Bioagricultural Scien	-0.150	0.023	-0.098	-6.622	0.000
Biochemistry and Mole	-0.152	0.031	-0.065	-4.873	0.000
Biology	-0.159	0.028	-0.079	-5.776	0.000
Biomedical Sciences	-0.099	0.025	-0.055	-3.927	0.000
Chemical and Biologic	0.028	0.037	0.010	0.766	0.445
Chemistry	-0.069	0.023	-0.045	-3.057	0.003
Civil and Environment	-0.026	0.022	-0.018	-1.203	0.230
Clinical Sciences	-0.085	0.023	-0.055	-3.651	0.000
Communication Studies	-0.328	0.021	-0.241	-15.526	0.000
Computer Information	0.415	0.037	0.146	11.179	0.000
Computer Science	0.135	0.025	0.074	5.330	0.000
Construction Manageme	-0.181	0.025	-0.100	-7.173	0.000
Design and Merchandis	-0.212	0.026	-0.117	-8.187	0.000
Economics	-0.001	0.031	0.000	-0.024	0.980
Ecosystem Science and	-0.261	0.031	-0.112	-8.434	0.000
Electrical and Comput	0.023	0.028	0.011	0.833	0.406
English	-0.400	0.023	-0.260	-17.726	0.000
Environmental and Rad	-0.034	0.020	-0.026	-1.677	0.095
Ethnic Studies	-0.383	0.031	-0.164	-12.333	0.000
Finance and Real Esta	0.607	0.028	0.300	22.015	0.000
Fish, Wildlife and Co	-0.228	0.037	-0.080	-6.216	0.000
Food Science and Huma	-0.243	0.051	-0.061	-4.817	0.000
Forest & Rangeland St	-0.262	0.025	-0.145	-10.361	0.000
Geosciences	-0.224	0.028	-0.111	-8.149	0.000
Health and Exercise S	-0.220	0.024	-0.133	-9.255	0.000
History	-0.421	0.023	-0.274	-18.523	0.000
Horticulture and Land	-0.204	0.031	-0.087	-6.589	0.000
Human Development and	-0.248	0.031	-0.106	-7.897	0.000
Human Dimensions of N	-0.290	0.028	-0.143	-10.413	0.000
Journalism and Media	-0.387	0.024	-0.234	-16.203	0.000
Languages, Literature	-0.437	0.031	-0.187	-14.144	0.000
Library	-0.839	0.031	-0.360	-26.729	0.000

Model: Assistant by Gender (cont.)	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
Management	0.399	0.031	0.171	12.919	0.000
Marketing	0.464	0.037	0.163	12.619	0.000
Mathematics	-0.178	0.024	-0.107	-7.502	0.000
Microbiology, Immunol	-0.105	0.020	-0.081	-5.159	0.000
Occupational Therapy	-0.230	0.028	-0.114	-8.236	0.000
Philosophy	-0.409	0.028	-0.202	-14.656	0.000
Physics	-0.204	0.025	-0.113	-8.074	0.000
Political Science	-0.329	0.025	-0.182	-13.016	0.000
Psychology	-0.236	0.031	-0.101	-7.632	0.000
School of Education	-0.280	0.022	-0.194	-12.854	0.000
School of Music, Thea	-0.459	0.019	-0.387	-23.978	0.000
School of Social Work	-0.334	0.024	-0.201	-13.706	0.000
Sociology	-0.349	0.024	-0.211	-14.744	0.000
Soil and Crop Science	-0.105	0.025	-0.058	-4.143	0.000
Statistics	-0.047	0.028	-0.023	-1.701	0.090
ASSTYRS	0.002	0.001	0.019	1.467	0.144

FY19 Faculty Salary Equity Analysis

Model: Professor by Minority Status	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	11.645	0.031		381.565	0.000
Professor Minority	0.014	0.022	0.020	0.619	0.536
Accounting	0.444	0.090	0.144	4.928	0.000
Agricultural and Reso	-0.063	0.054	-0.037	-1.174	0.241
Animal Sciences	-0.060	0.052	-0.037	-1.155	0.249
Anthropology	-0.260	0.062	-0.128	-4.203	0.000
Art and Art History	-0.454	0.071	-0.189	-6.349	0.000
Atmospheric Science	0.273	0.052	0.168	5.286	0.000
Bioagricultural Scien	-0.040	0.048	-0.028	-0.848	0.397
Biochemistry and Mole	-0.072	0.056	-0.040	-1.286	0.199
Biology	-0.060	0.043	-0.048	-1.397	0.163
Biomedical Sciences	0.014	0.047	0.010	0.302	0.762
Chemical and Biologic	0.169	0.062	0.083	2.718	0.007
Chemistry	0.074	0.047	0.053	1.584	0.114
Civil and Environment	0.179	0.047	0.128	3.805	0.000
Communication Studies	-0.247	0.066	-0.112	-3.720	0.000
Computer Information	0.187	0.080	0.070	2.352	0.019
Computer Science	0.099	0.048	0.069	2.067	0.039
Construction Manageme	0.179	0.151	0.034	1.184	0.237
Design and Merchandis	-0.160	0.071	-0.067	-2.239	0.026
Economics	0.020	0.056	0.011	0.354	0.724
Ecosystem Science and	-0.058	0.062	-0.029	-0.942	0.347
Electrical and Comput	0.181	0.047	0.133	3.887	0.000
English	-0.326	0.047	-0.225	-6.874	0.000
Environmental and Rad	0.026	0.054	0.015	0.483	0.629
Ethnic Studies	-0.275	0.111	-0.073	-2.482	0.013
Finance and Real Esta	0.290	0.066	0.132	4.378	0.000
Fish, Wildlife and Co	-0.216	0.056	-0.120	-3.852	0.000
Food Science and Huma	-0.226	0.066	-0.103	-3.418	0.001
Forest & Rangeland St	-0.154	0.067	-0.070	-2.311	0.021
Geosciences	-0.112	0.071	-0.047	-1.571	0.117
Health and Exercise S	-0.038	0.066	-0.017	-0.576	0.565
History	-0.333	0.059	-0.175	-5.684	0.000
Horticulture and Land	-0.114	0.054	-0.067	-2.127	0.034
Human Development and	-0.120	0.052	-0.073	-2.315	0.021
Human Dimensions of N	-0.216	0.067	-0.099	-3.234	0.001
Journalism and Media	-0.255	0.071	-0.106	-3.579	0.000
Languages, Literature	-0.411	0.082	-0.153	-5.038	0.000
Library	-0.628	0.090	-0.203	-6.993	0.000

Model: Professor by Minority Status (cont.)	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
Management	0.367	0.056	0.204	6.558	0.000
Marketing	0.272	0.071	0.113	3.813	0.000
Mathematics	-0.060	0.049	-0.040	-1.242	0.215
Mechanical Engineerin	0.229	0.054	0.134	4.274	0.000
Microbiology, Immunol	-0.008	0.040	-0.007	-0.210	0.834
Occupational Therapy	-0.035	0.090	-0.011	-0.390	0.697
Philosophy	-0.310	0.063	-0.153	-4.890	0.000
Physics	-0.092	0.060	-0.048	-1.522	0.129
Political Science	-0.164	0.059	-0.086	-2.794	0.005
Psychology	-0.117	0.043	-0.094	-2.720	0.007
School of Education	-0.205	0.054	-0.120	-3.804	0.000
School of Music, Thea	-0.345	0.059	-0.181	-5.887	0.000
Sociology	-0.124	0.073	-0.052	-1.684	0.093
Soil and Crop Science	-0.011	0.056	-0.006	-0.206	0.837
Statistics	0.084	0.062	0.041	1.352	0.177
FULLYRS	0.024	0.005	0.860	5.033	0.000
FULLYRS2	-0.001	0.000	-1.037	-2.789	0.006
FULLYRS3	0.000	0.000	0.403	1.746	0.081

FY19 Faculty Salary Equity Analysis

Model: Associate by Minority Status	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	11.470	0.022		525.064	0.000
Associate Minority	-0.014	0.015	-0.025	-0.954	0.341
Accounting	0.448	0.058	0.189	7.776	0.000
Agricultural and Reso	0.041	0.040	0.026	1.029	0.304
Animal Sciences	-0.033	0.040	-0.021	-0.829	0.408
Anthropology	-0.223	0.045	-0.121	-4.946	0.000
Art and Art History	-0.322	0.034	-0.257	-9.584	0.000
Atmospheric Science	0.266	0.045	0.144	5.877	0.000
Bioagricultural Scien	-0.014	0.093	-0.003	-0.152	0.879
Biochemistry and Mole	-0.009	0.050	-0.004	-0.176	0.861
Biology	-0.054	0.042	-0.032	-1.273	0.204
Biomedical Sciences	-0.008	0.039	-0.005	-0.195	0.845
Chemical and Biologic	0.217	0.045	0.118	4.786	0.000
Chemistry	0.117	0.045	0.064	2.607	0.010
Civil and Environment	0.203	0.036	0.147	5.590	0.000
Clinical Sciences	0.046	0.029	0.048	1.595	0.112
Communication Studies	-0.186	0.049	-0.090	-3.756	0.000
Computer Information	0.516	0.056	0.218	9.246	0.000
Computer Science	0.227	0.067	0.078	3.384	0.001
Construction Managemen	-0.063	0.042	-0.038	-1.510	0.132
Design and Merchandis	-0.130	0.068	-0.045	-1.916	0.056
Economics	0.137	0.042	0.082	3.245	0.001
Ecosystem Science and	-0.146	0.045	-0.079	-3.243	0.001
Electrical and Comput	0.195	0.046	0.106	4.224	0.000
English	-0.204	0.034	-0.163	-6.060	0.000
Environmental and Rad	0.096	0.033	0.083	2.924	0.004
Ethnic Studies	-0.109	0.047	-0.059	-2.335	0.020
Finance and Real Esta	0.493	0.045	0.268	10.925	0.000
Fish, Wildlife and Co	-0.119	0.045	-0.065	-2.632	0.009
Food Science and Huma	-0.094	0.036	-0.068	-2.609	0.010
Forest & Rangeland St	-0.144	0.056	-0.061	-2.569	0.011
Geosciences	-0.064	0.040	-0.041	-1.620	0.106
Health and Exercise S	-0.098	0.056	-0.042	-1.761	0.079
History	-0.232	0.067	-0.080	-3.472	0.001
Horticulture and Land	-0.050	0.040	-0.032	-1.274	0.204
Human Development and	-0.065	0.050	-0.031	-1.298	0.195
Human Dimensions of N	-0.073	0.049	-0.035	-1.474	0.142
Journalism and Media	-0.208	0.042	-0.124	-4.970	0.000
Languages, Literature	-0.353	0.040	-0.226	-8.889	0.000
Library	-0.520	0.038	-0.356	-13.843	0.000

Model: Associate by Minority Status (cont.)	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
Management	0.445	0.040	0.286	11.268	0.000
Marketing	0.506	0.049	0.246	10.268	0.000
Mathematics	-0.047	0.038	-0.032	-1.245	0.214
Mechanical Engineerin	0.214	0.036	0.155	5.872	0.000
Occupational Therapy	-0.053	0.045	-0.029	-1.169	0.243
Philosophy	-0.125	0.049	-0.061	-2.544	0.012
Physics	0.070	0.045	0.038	1.538	0.125
Political Science	-0.146	0.056	-0.062	-2.609	0.010
Psychology	-0.060	0.040	-0.038	-1.516	0.131
School of Education	-0.145	0.049	-0.070	-2.925	0.004
School of Music, Thea	-0.311	0.031	-0.278	-9.931	0.000
School of Social Work	-0.143	0.093	-0.035	-1.538	0.125
Sociology	-0.187	0.045	-0.102	-4.152	0.000
Soil and Crop Science	-0.113	0.045	-0.061	-2.508	0.013
Statistics	0.094	0.092	0.023	1.020	0.309
ASSOCYRS	0.001	0.002	0.032	0.553	0.580
ASSOCYRS2	0.000	0.000	-0.130	-2.273	0.024

FY19 Faculty Salary Equity Analysis

Model: Assistant by Minority Status (cont.)	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	11.478	0.014		844.132	0.000
Assistant Minority	-0.005	0.007	-0.010	-0.709	0.479
Accounting	0.612	0.025	0.338	24.047	0.000
Agricultural and Reso	-0.104	0.024	-0.063	-4.343	0.000
Animal Sciences	-0.145	0.024	-0.088	-6.133	0.000
Anthropology	-0.354	0.028	-0.175	-12.797	0.000
Art and Art History	-0.437	0.023	-0.284	-19.382	0.000
Atmospheric Science	0.099	0.037	0.035	2.705	0.007
Bioagricultural Scien	-0.149	0.023	-0.097	-6.583	0.000
Biochemistry and Mole	-0.153	0.031	-0.065	-4.896	0.000
Biology	-0.160	0.028	-0.079	-5.810	0.000
Biomedical Sciences	-0.098	0.025	-0.054	-3.891	0.000
Chemical and Biologic	0.029	0.037	0.010	0.779	0.437
Chemistry	-0.070	0.023	-0.046	-3.116	0.002
Civil and Environment	-0.026	0.021	-0.018	-1.222	0.223
Clinical Sciences	-0.087	0.023	-0.056	-3.828	0.000
Communication Studies	-0.329	0.021	-0.242	-15.853	0.000
Computer Information	0.418	0.037	0.147	11.321	0.000
Computer Science	0.135	0.025	0.074	5.330	0.000
Construction Managemen	-0.182	0.025	-0.101	-7.212	0.000
Design and Merchandis	-0.213	0.025	-0.117	-8.412	0.000
Economics	-0.001	0.031	-0.001	-0.042	0.967
Ecosystem Science and	-0.263	0.031	-0.113	-8.480	0.000
Electrical and Comput	0.023	0.027	0.012	0.851	0.395
English	-0.402	0.023	-0.261	-17.780	0.000
Environmental and Rad	-0.036	0.020	-0.027	-1.765	0.079
Ethnic Studies	-0.380	0.031	-0.163	-12.214	0.000
Finance and Real Esta	0.607	0.027	0.300	22.087	0.000
Fish, Wildlife and Co	-0.228	0.037	-0.080	-6.225	0.000
Food Science and Huma	-0.241	0.050	-0.060	-4.784	0.000
Forest & Rangeland St	-0.264	0.025	-0.146	-10.382	0.000
Geosciences	-0.226	0.028	-0.112	-8.187	0.000
Health and Exercise S	-0.221	0.024	-0.133	-9.321	0.000
History	-0.423	0.023	-0.275	-18.771	0.000
Horticulture and Land	-0.206	0.031	-0.088	-6.640	0.000
Human Development and	-0.249	0.031	-0.107	-8.059	0.000
Human Dimensions of N	-0.291	0.028	-0.144	-10.552	0.000
Journalism and Media	-0.387	0.024	-0.233	-16.360	0.000
Languages, Literature	-0.436	0.031	-0.187	-14.105	0.000
Library	-0.841	0.031	-0.361	-27.140	0.000

Model: Assistant by Minority Status (cont.)	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
Management	0.397	0.031	0.170	12.800	0.000
Marketing	0.464	0.037	0.163	12.659	0.000
Mathematics	-0.179	0.024	-0.108	-7.543	0.000
Microbiology, Immunol	-0.105	0.020	-0.082	-5.223	0.000
Occupational Therapy	-0.231	0.028	-0.114	-8.354	0.000
Philosophy	-0.410	0.028	-0.203	-14.691	0.000
Physics	-0.204	0.025	-0.113	-8.089	0.000
Political Science	-0.330	0.025	-0.182	-13.049	0.000
Psychology	-0.236	0.031	-0.101	-7.659	0.000
School of Education	-0.279	0.022	-0.194	-12.916	0.000
School of Music, Thea	-0.460	0.019	-0.388	-24.029	0.000
School of Social Work	-0.336	0.024	-0.202	-14.123	0.000
Sociology	-0.350	0.024	-0.211	-14.786	0.000
Soil and Crop Science	-0.107	0.025	-0.059	-4.212	0.000
Statistics	-0.048	0.028	-0.024	-1.735	0.084
ASSTYRS	0.002	0.001	0.019	1.464	0.145

FY19 Faculty Salary Equity Analysis

Appendix B

Relationship between Log Salary and Years in Rank

Figure 1.

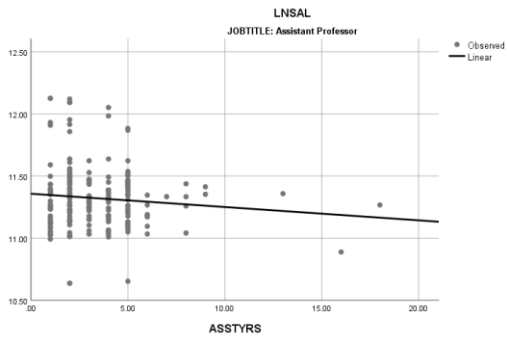


Figure 2.

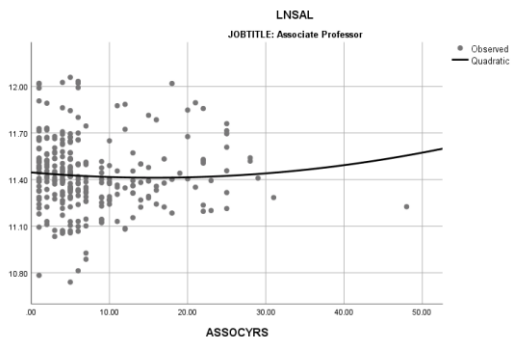
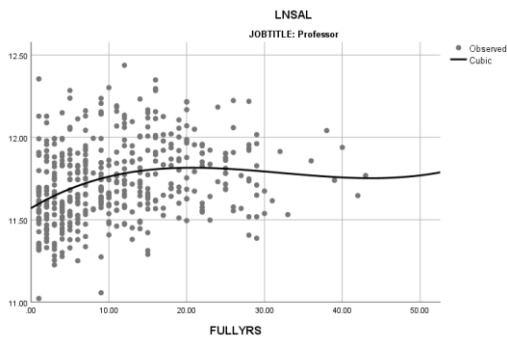


Figure 3.



Appendix 5

University of Colorado Boulder Colorado Equal Pay for Equal Work Act Instructional Faculty Salary Equity Analysis

2021–22

Methodology and Review Process

Office of Data Analytics and Office of Academic Affairs
Jan. 18, 2022

Abstract

The Institutional Research (IR) team in the Office of Data Analytics (ODA) performs an annual faculty salary equity analysis on behalf of the Provost's Office to monitor faculty salaries for racial or ethnic group and gender salary equity. In 2021, IR revised this analysis methodology to address the requirements of the Colorado Equal Pay for Equal Work Act (EPEWA). Unlike the annual faculty salary equity analysis methodology, which analyzes salaries as a campus-wide aggregate, the EPEWA instructional faculty salary equity analysis methodology enables a comparison of salaries within particular faculty ranks and particular academic disciplines. The construction of the EPEWA methodology demonstrated that a number of variables permissible for salary differentiation under the EPEWA have statistically significant predictive value for faculty salaries. In addition, due to the fact that some of these variables had statistically significant predictive value and others did not, depending on different groups of faculty, different versions of the predictive model were created to apply to these different groups of faculty. These different versions of the predictive model were then used to analyze current base salary and to calculate predicted salary for all tenured, tenure-track, instructor-track, and clinical faculty members, according to the model version and criteria applicable to each faculty member's position. If a faculty member who was identified as having an actual salary below the predicted salary was also in a category eligible for a pay adjustment under the EPEWA, they were flagged for further qualitative review to determine whether an additional explanatory factor allowable under the EPEWA accounted for the gap between actual and predicted salary. If no explanatory factor allowable under the EPEWA accounted for that gap, the faculty member was deemed eligible for the identified pay adjustment.

Annual Faculty Salary Equity Analysis: Background and History

CU Boulder began to analyze faculty salary equity in the late 1990s, using methods grounded in influential research by CU Boulder faculty members Jane Lillydahl and Larry Singell.¹ At that time, the Associate Vice Chancellor of Academic Affairs for Budget and Planning engaged in analysis of tenure-track and tenured faculty salaries for racial and ethnic group and gender salary equity. Results

¹ Jane H. Lillydahl and Larry Singell, "Job Satisfaction, Salaries and Unions: The Determination of University Faculty Compensation," *Economics of Education Review* 12.3 (1993): 233-43; Lillydahl and Singell, "Compression in faculty salaries: An Empirical Evaluation of Merit and Market Based Adjustments," *The Journal of Socio-Economics* 21.3 (1992): 229-43.

from fall 1999 and fall 2000 identified statistically significant salary differences based on gender. The campus invested funds to address these salary differences. Further analysis in fall 2001 did not uncover any statistically significant gender disparity in faculty salaries.

When the tenured and tenure-track (TTT) faculty salary equity analysis was repeated in 2009, it revealed a statistically significant negative salary gap for women. The campus did not have funding to address this gap, due to budget cuts resulting from funding shortfalls from 2009 through 2011. When the campus resumed this salary equity analysis in 2011, the 2009 negative salary gap for women did not reappear. Subsequent IR analyses of TTT faculty salaries have not uncovered a statistically significant salary gap either for women or for racial/ethnic categories.

The Office of Institutional Research (IR) began to conduct the campus-wide equity analysis of tenured and tenure-track faculty salaries for the Provost's Office annually in 2011. In addition, salary equity analysis across all remaining employee categories at CU Boulder is conducted annually in support of the Office of Federal Contract Compliance Programs (OFCCP) compliance. The annual salary equity analyses conducted by IR and by OFCCP assess statistically significant salary differentials by racial or ethnic group and gender across employee groups with similar job roles and responsibilities. Over time, the salary equity analysis methodology for faculty members has been further refined based on publicly disseminated research on analyzing pay gaps in higher education associated with gender or race/ethnicity.²

Development of EPEWA Methodology

As described above, CU Boulder's annual salary equity analyses have examined salaries in aggregate instead of assessing pay inequities related to gender and racial or ethnic group at the unit level. For tenure-track and tenured faculty, this annual faculty salary equity analysis has three separate analytical models based on faculty rank (full, associate, and assistant professor). In order to adapt the campus-wide faculty salary equity analysis to the analysis needed to address the EPEWA, IR revised the campus methodology in a way that localizes salary equity analysis within particular faculty ranks and particular academic disciplines. For purposes of the EPEWA salary analysis, IR also extended the revised methodology to analyze the salaries of instructor-track and clinical faculty members along with those of TTT faculty members. (Adjunct/lecturer faculty salaries are not part of the EPEWA methodology.) References to "faculty" throughout the rest of this document are to all tenured, tenure-track, instructor-track, and clinical faculty unless otherwise specified.

As part of developing the EPEWA methodology, IR undertook multiple analyses of current faculty base salaries within the various faculty ranks and within the colleges, schools, and individual disciplines within

² See, for example, Robert K. Toutkoushian, ed., *Conducting Salary Equity Studies*, special issue of *New Directions in Institutional Research*, vol. 2002, issue 115 (Fall 2002); Linda W. Perna, "Studying Faculty Salary Equity: A Review of Theoretical and Methodological Approaches," in John C. Smart, ed., *Higher Education: Handbook of Theory and Research* (Dordrecht: Springer, 2003), 323–88; Andrew L. Luna, "Faculty Salary Equity Cases: Combining Statistics with the Law," *The Journal of Higher Education* 77:2 (2006): 193–224; Joyce J. Chen and Daniel Crown, "The Gender Pay Gap In Academia: Evidence From The Ohio State University," *Amer. J. Agr. Econ.* 101(5) (2019): 1337–52; Lori L. Taylor et al., "How to Do a Salary Equity Study: With an Illustrative Example From Higher Education," *Public Personnel Management* Vol. 49(1) (2020): 57–82; and [Peter Choi and Erick Axxe. "Race and Gender Disparities in Academic Pay."](#) Academic Analytics Research Center, 27 Sep. 2021; accessed 13 Jan. 2022.

larger colleges and schools. (A faculty member's base salary is defined later in this document.) The goal was to identify those variables that strongly correlate with a higher salary and that can be confidently viewed as explanatory factors for why one individual faculty member's salary differs from that of another faculty member who is at the same rank. Once those explanatory factors were identified, the task was to determine which of them are permissible under the EPEWA.

Multiple variables were initially considered in order to determine which ones had the greatest explanatory value for individual faculty members' salaries, and to eliminate those that did not have strong explanatory value. The multiple variables initially modeled for consideration were:

- School, college, or (in the case of ENVD) program
- A&S division (if applicable)
- Department (applicable in A&S, CEAS, and CMCI), division (applicable in Leeds), or disciplinary area within a college
- Job title
- Age
- Gender
- Race/ethnicity
- Years since highest degree
- Years in current faculty rank
- Years at CU (employed in any position)
- Years in CU position (i.e., total years at CU in a TTT faculty position, or in an instructor-track or clinical faculty position)
- Years teaching in higher education (applicable in Law)
- Whether the faculty member was a new hire (hired within the past 12 months)
- Whether the faculty member had recently been promoted to a higher rank (within the past 12 months)
- Total number of appointments held by the faculty member in AY 2021-22 (including primary appointment, institute appointment, administrative appointment, overload teaching appointment, etc.)
- Whether the faculty member specifically holds an administrative appointment in AY 2021-22 (chair, associate chair, or faculty director), as separate from the total number of appointments held by that faculty member
- Whether the faculty member specifically holds an institute appointment, as separate from the total number of appointments held by that faculty member
- The faculty member's average merit score, standardized by unit: time spans considered were 2007-2021, 2012-2021, and 2017-2021
- Whether the faculty member accepted a retention offer between March 2011 and August 2021 (a dichotomous "yes" or "no" variable; the amount or structure of the retention offer was not included)

This modeling ultimately demonstrated which of these variables did or did not have significantly significant predictive value for faculty salaries at CU Boulder:

- 1) Gender and race/ethnicity were among the variables with strongly predictive value for faculty salaries. However, gender and race/ethnicity are *not* variables that are permissible for salary differentiation under the EPEWA.
- 2) In contrast, the other variables that had strongly predictive value for faculty salaries *are* permissible for salary differentiation under the EPEWA. Across the entire faculty, including both TTT and instructor-track/clinical faculty, the statistically significant variables that are permissible for salary differentiation under the EPEWA were:
 - **Variables related to seniority:**
 - Years since highest degree
 - Years in current faculty rank
 - Years at CU (employed in any position)
 - Years in position (i.e., total years at CU in a TTT faculty position, or in an instructor-track or clinical faculty position)
 - Years teaching in higher education, as separate from years since highest degree (applicable only in Law)
 - For instructor-track and clinical faculty, total years as instructor-track or clinical faculty
 - Whether the faculty member was a new hire (hired within the past 12 months)
 - **Variables related to education, training, or experience:**
 - School, college, or (in the case of ENVD) program
 - A&S division (if applicable)
 - Department (applicable in A&S, CEAS, and CMCI), division (applicable in Leeds), or disciplinary area (applicable only in Libraries and Law)
 - Job title
 - Total number of appointments held by the faculty member in AY 2021-22 (including primary appointment, institute appointment, administrative appointment, overload teaching appointment, etc.)
 - **Variables related to a merit system or a system of measuring quantity or quality of production:**
 - The faculty member's average merit score, standardized by unit, for the five-year span of 2017-2021; longer time spans for merit scores did not prove to have statistically significant predictive value for higher salaries
 - Whether the faculty member accepted a retention offer between March 2011 and August 2021 (a dichotomous "yes" or "no" variable; the amount or structure of the retention offer was not included)
- 3) The variables that did not prove to have strongly significant predictive value for faculty salaries were discarded from further use in the methodology. These included:
 - Age (as separate from years in current faculty rank, years since highest degree, etc.)
 - Whether the faculty member specifically holds an administrative appointment in AY 2021-22 (chair, associate chair, or faculty director), as distinct from the total number of appointments held by that faculty member

- Whether the faculty member specifically holds an institute appointment, as distinct from the total number of appointments held by that faculty member
- The faculty member's average merit score, standardized by unit, for longer time spans than the previous five years (2017-2021)

In order to apply the predictive model in a manner permissible for analysis under the EPEWA, *race and gender were eliminated as variables that could predict salary*. The variables that remained were those listed above that are permissible under the EPEWA and that proved strongly predictive of faculty salaries.

Furthermore, this process of considering variables revealed that the specific array of variables that had statistically significant predictive value differed among different groups of faculty. As a result, different variations of the predictive model were created to apply to these different groups of faculty. These variations are described below in the sections titled "EPEWA Methodology for Tenured and Tenure-Track Faculty" and "EPEWA Methodology for Instructor-Track and Clinical Faculty." Each variation of the predictive model was then employed to calculate the predicted salary of every individual faculty member within the faculty group covered by that variation of the model.

Once that calculation was complete, those faculty members who were identified as having an actual salary below the predicted salary and who were also in a category eligible for a pay adjustment under the EPEWA (according to gender and/or race/ethnicity) were flagged for further qualitative review to determine whether an additional explanatory factor allowable under the EPEWA accounted for the gap between actual and predicted salary. If no explanatory factor allowable under the EPEWA accounted for that gap, the individual was deemed eligible for the identified pay adjustment. Further information on this qualitative review is included in the section titled "Review Process," below.

EPEWA Methodology for Tenured and Tenure-Track Faculty

For tenured and tenure-track faculty, predicted salary is determined by customized models by school/college/program and rank, using variables that have a statistically significant predictive value for salaries of that particular group of faculty. Customized model specifics by school/college/program and rank are provided in Appendix A.

Model variables that proved strongly predictive for TTT faculty overall and that were included in the customized models insofar as they were strongly related to that particular group of faculty were:

- **Variables related to seniority:**
 - Years since highest degree
 - For Libraries faculty only: years since receipt of the MLS degree, as separate from years since other higher degree earned
 - For Law faculty only: years teaching in higher education, as separate from years since highest degree
 - Years in current faculty rank
 - Years at CU (employed in any position)
 - Years in position (i.e., total years at CU in a TTT faculty position, or in an instructor-track or clinical faculty position)
 - Whether the faculty member was a new hire (hired within the past 12 months)
- **Variables related to education, training, or experience:**

- School, college, or (in the case of ENVD) program
 - A&S division (if applicable)
 - Department (applicable in A&S, CEAS, and CMCI), division (applicable in Leeds), or disciplinary area (applicable only in Libraries and Law)
 - Total number of appointments held by the faculty member in AY 2021-22 (including primary appointment, institute appointment, administrative appointment, overload teaching appointment, etc.)
- **Variables related to a merit system or a system of measuring quantity or quality of production:**
 - The faculty member's average merit score, standardized by unit, for the five-year span of 2017-2021; longer time spans for merit scores did not prove to have statistically significant predictive value for higher salaries
 - Whether the faculty member accepted a retention offer between March 2011 and August 2021 (a dichotomous "yes" or "no" variable; the amount or structure of the retention offer was not included)

EPEWA Methodology for Instructor-Track and Clinical Faculty

For instructor-track and clinical faculty, predicted salary is determined by customized models by school/college/program and (if applicable) A&S division, using variables that have a statistically significant predictive value for salaries of that particular group of faculty. Customized model specifics by school/college/program are provided in Appendix A.

Model variables that proved strongly predictive for instructor-track faculty overall and that were included in the customized models insofar as they were strongly related to that particular group of faculty were:

- **Variables related to seniority:**
 - Years since highest degree
 - For Law faculty only: years teaching in higher education or years of clinical/librarianship experience, as separate from years since highest degree
 - Years in current faculty rank
 - Total years as instructor-track or clinical faculty
 - Years at CU
 - Whether the faculty member was a new hire (hired within the past 12 months)
- **Variables related to education, training, or experience:**
 - Job title
 - School, college, or (in the case of ENVD) program
 - A&S division (if applicable)
 - Department (applicable in A&S, CEAS, and CMCI), division (applicable in Leeds), or disciplinary area (applicable only in Libraries and Law)
 - Total number of appointments held by the faculty member in AY 2021-22 (including primary appointment, institute appointment, administrative appointment, overload teaching appointment, etc.)

- **Variables related to a merit system or a system of measuring quantity or quality of production:** unlike with TTT faculty, annual merit scores were not strongly predictive of salary for instructor-track and clinical faculty, so they were not used in any of the customized models for these faculty groups.

Application of Methodology to Faculty Salaries: Algorithms and Examples

The algorithms used to apply the EPEWA analytic methodology to the determination of predicted salaries for TTT faculty (assistant, associate, and full professors) and instructor-track and clinical faculty in the various schools and colleges are included as Appendix A.

Appendix B provides two examples of how the relevant algorithm calculates predicted salaries:

- 1) Three different TTT faculty members of the same rank in the same A&S division and same department
- 2) Four different instructor-track faculty members of different ranks (instructor and senior instructor) in different departments of the College of Engineering & Applied Science (CEAS)³

Model Statistical Information

- Model R-Squared values range from mid-60s to mid-90s when gender and race/ethnicity were included as variables. Once those variables were excluded, R-Squared range increased significantly, from mid-20s (for just two different TTT faculty groups) to upper-90s. The increase in range heightened the need for qualitative analysis, especially for those model variations with lower R-Squared values.
- Most variable p-values are statistically significant at or below 0.05 significance level
- The direction of most coefficient estimates aligns with expectations

Review Process

- Each faculty member's current base salary was analyzed according to the model and criteria applicable to their position. Individuals with an actual salary below the predicted salary according to these criteria were identified.
- If an individual identified as having an actual salary below the predicted salary was also in a category eligible for a pay adjustment under the EPEWA, they were flagged for further review by their dean.
- The flagged faculty members' salaries were reviewed by the applicable deans of the schools and colleges, the divisional deans of the College of Arts & Sciences (A&S), the deans of Continuing Education, the Graduate School, and Undergraduate Education (for faculty whose positions are in those areas), and their respective budget/HR teams. The deans identified whether an additional explanatory factor allowable under the EPEWA accounted for the gap between actual and predicted salary.
- Academic Affairs undertook an iterative review and correction process for equity adjustments based on the deans' feedback, consulting further with the deans and their respective budget teams before final determinations were made.
- Salaries of individuals with less than 1.0 FTE appointments were analyzed at the 100% FTE rate for predicted salary, and final equity adjustments were prorated to each individual's actual FTE.

³ These examples represent generic members of these faculty groups and do not reflect the actual salaries or other characteristics of actual faculty members.

Additional Information: Data Sources

- Academic Year base salary: AY 2021-22 base salaries were identified as of October 1, 2021, from data supplied by the Provost's Office Budget Office for rostered and budgeted positions and from campus Human Capital Management system (HCM) personnel appointments for all other positions. The base salary excludes any additional appointment payments, such as chair stipends, other administrative stipends, overload payments, and summer research stipends.
- 3% increase: AY 2021-22 base salaries were then increased 3% to reflect the January 1, 2022, base-building compensation increase.
- Retention offers: The existence of one or more successful retention offers accepted from January 2011 through June 30, 2021, is included as a data source for its predictive value for faculty salaries and as a factor indicative of EPEWA-allowable factors such as merit and quality and quantity of production. This is a dichotomous variable that does not consider retention offer amount or additional retention offer incentives (e.g., additional research funding, research lines).
- Annual evaluation merit scores for tenured and tenure-track faculty: Merit scores were standardized by unit across all full, associate, and assistant professors. Merit Z-score calculation used the mean and standard deviation with an academic unit to determine variance of an individual's score from peers within the department. Various spans of time were tested for their predictive value for faculty salaries; average merit score over the past 5 years (2017-2021) proved to have the highest predictive value and is used for calculation. Merit scores were removed as a variable for assistant professors because they proved not to have predictive value for salary for this group of faculty.
- Number of appointments: This is the total of additional appointments during the current academic year. This variable is included both for its predictive value and because an additional appointment (e.g., chair, director) may be indicative of training or experience, which are factors contributing to salary that are allowed under the EPEWA.
- Gender and race/ethnicity information:
 - Gender and race/ethnicity information was taken from HCM as of October 1, 2021.
 - For gender, HCM currently has only the binary choice of male or female.
 - For race/ethnicity, individuals are asked two questions to collect ethnicity and race information that result in reporting in one of the following categories:
 - Hispanic/Latino
 - American Indian/Alaska Native
 - Native Hawaiian/Pacific Islander
 - Black/African American
 - Asian
 - White
 - International
 - Unknown
 - For the purpose of the EPEWA analysis, international employees with a H-1B or other visa type were classified based on disclosed race/ethnicity information, if available.
 - For the purpose of the EPEWA analysis, race/ethnicity information was not included for individuals who have not selected an ethnicity and/or race in HCM.
- Calculated variables:

- Years since Highest Degree used Office of Faculty Affairs data as the primary source and HCM data as a secondary source. This variable was calculated based on the latest highest degree obtained by the faculty member when information on multiple degrees is available. Deans were consulted on which degree(s) are considered terminal in particular fields. For example, the MLS degree is considered the terminal degree for library faculty.
- Years as instructor = as of October 1, 2021
- Years as instructor and senior instructor (i.e., total years in instructor-track position[s]) = as of October 1, 2021
- Age = as of October 1, 2021
- Years in position = based on HCM current position
- New faculty status = based on a CU Hire Date on or after October 1, 2020
- Years at CU = based on CU Hire Date
- Years in rank = based on date rank took effect

Additional Information: Faculty Groupings

- Associate deans were included in the analysis with school/college/program determined by tenure-locus or home department and rank assignment using instructional rank, job title, and base pay.
- If an individual received two degrees at the same level (e.g., MA and MS, PhD and EdD), then years since the highest degree was calculated based on the earlier awarded degree.
- Tenured and tenure-track faculty:
 - Separate models were developed for full, associate, and assistant professors since the set of variables that proved to have the most reliable predictive value varied for each rank.
 - Distinguished professors were included with full professors.
 - Institute faculty were included with their tenure-locus departments.
 - The level of analysis was the academic unit by rank for departments in A&S and CEAS. For the Leeds School of Business, the level of analysis was the division, classified as accounting, finance, management OLIA, management SEO, marketing, or general business, by rank. For other schools and colleges and the Program in Environmental Design, the level of analysis was the school, college, or program as a whole.
- Instructor-track and clinical faculty:
 - Senior instructors and instructors with multiple appointments (e.g., appointments in two or more separate units) were categorized according to their higher/highest appointment. This was selected based on job title, percent time, and salary.
 - Senior instructor rank analysis included faculty with a top appointment of senior instructor, associate deans with a senior instructor appointment, and clinical faculty with a full, associate, or assistant clinical faculty appointment.
 - Instructor-rank faculty analysis included individuals with a top appointment of instructor and clinical faculty with a clinical senior instructor or clinical instructor appointment.

- Faculty groups not included in EPEWA analysis of instructional faculty:
 - Because salary adjustments are planned for January 2022 for individuals identified by this analysis, faculty with retirement agreements taking effect on or before January 1, 2022 were removed from the analysis process.
 - Former deans who had returned to the faculty with a substantially higher salary than the next-highest-paid full professors were removed from the analysis process, and their salaries were not part of college/school/program or department/division/area calculations.
 - Research faculty in both the research professor title series and the research associate title series were not included in the analysis of instructional faculty. Salary equity analysis for research faculty is being done separately and will be completed in 2022.
 - Adjunct faculty and lecturers were not included in the analysis of instructional faculty.

Additional Information: Comparison Between the Annual Faculty Salary Equity Analysis and the Current EPEWA Analysis

- The annual salary equity analysis conducted by IR focuses on assessing statistically significant pay differences, whereas the EPEWA analysis includes any dollar amount difference between actual and predicted salary.
- The annual salary equity analysis developed a model for consistency across job titles and disciplines, whereas the EPEWA analysis allows for different models across different job titles and disciplines, as per the EPEWA allowance for salary difference attributable to education, training, or experience.
- The annual salary equity analysis considered tenured and tenure-track faculty ranks only, whereas the EPEWA analysis also includes instructor-track and clinical faculty.
- The annual salary equity analysis included a comparison to the average faculty salary at AAU public peers, whereas the EPEWA analysis uses only CU Boulder data sources. Market comparison is not allowed as a component of analysis for purposes of the EPEWA criteria.
- The EPEWA analysis includes retention offers, because of their predictive value for salaries and because they are an indicator of EPEWA-allowable factors such as experience and quality and quantity of production.
- A longer time frame of merit scores (5 years) is included in the EPEWA analysis than in the annual salary equity analysis. This helps to account for pay disparities that result from the quantity and quality of a faculty member's production, as based on a documented merit system and allowable under the EPEWA.
- Neither the annual salary equity analysis nor the EPEWA analysis addresses pay disparities that reflect salary compression. Salary compression is analyzed by a separate process.

Project Timeline

- Fall 2020 through July 2021: creation of EPEWA analytic methodology
 - CU Boulder working group formed comprising individuals from Human Resources, University Counsel, the Academic Affairs finance and budget office, and Institutional Research, as well as the Executive Vice Provost for Academic Resource Management, the Senior Vice Provost for Academic Planning & Assessment, and the Vice Provost for Faculty Affairs

- Review of existing CU Boulder salary equity analysis
- External consultant engagement on possible salary equity analysis model
- Salary equity results comparisons and validation
- Finalized model for Round 1 review
- August 2021 to January 2022: iterative application and refinement of EPEWA methodology; iterative qualitative review; final determinations of salary adjustments
 - Results produced for Round 1 review by deans and their respective budget/HR team
 - Working group meetings with each dean and their leadership team to discuss methodology and preview Round 1 results
 - Round 1 results shared with each dean and their leadership team
 - Round 1 results compared to salary equity analysis performed independently by some schools, colleges, and programs
 - Methodology refined based on deans' feedback from Round 1 results
 - Base salaries in model revised to reflect University of Colorado Board of Regents decision to award a 3% base building salary increase as of Jan. 1, 2022
 - Round 2 results sent to deans for qualitative review and further feedback
 - Review and corrections by working group based on deans' qualitative review and further feedback
 - Round 3 results sent to deans for further qualitative review
 - Individual meetings held with each dean to discuss further qualitative review
 - Review of deans' further qualitative review and final determinations of salary adjustments by the working group
 - Budget review and final fact checking by the Provost's Office Finance and Budget Office
 - Approval of salary adjustments by campus leadership
 - Submission of salary adjustments to Employee Services for Jan. 2022 pay cycle

Appendix B

**Table 1: Colorado Equal Pay for Equal Work Act Model Examples
Three professors in the same department and rank with
Differences in Years in Position, Years Since Highest Degree, Retention Offer, and Merit Scores**

Note: these examples represent generic members of these faculty groups and do not reflect the actual salaries or other characteristics of actual faculty members.

	Full Professor A	Full Professor B	Full Professor C
Actual Salary as of 1/1/2022 with 3% base building increase	\$ 115,000	\$ 115,000	\$ 115,000
Predicted Salary	\$ 126,609	\$ 143,874	\$ 115,006
Difference from Predicted	\$ (11,609)	\$ (28,874)	\$ (6)
Predicted salary			
Predicted salary	\$ 126,609	\$ 143,874	\$ 115,006
=	=	=	=
Intercept	\$ 51,514.68	\$ 51,514.68	\$ 51,514.68
+	+	+	+
Years Since Highest Degree Coefficient	\$ 2,918.22	\$ 2,918.22	\$ 2,918.22
Value	23	25	27
+	+	+	+
Years in Position Coefficient	\$ (3,704.30)	\$ (3,704.30)	\$ (3,704.30)
Value	10	20	20
+	+	+	+
Retention Coefficient	\$ 20,937.55	\$ 20,937.55	\$ 20,937.55
Retention	0	1	0
+	+	+	+
Tenure Locus Department Coefficient	\$ 51,902.07	\$ 51,902.07	\$ 51,902.07
Tenure Locus Department	ENGL	ENGL	ENGL
+	+	+	+
Z Merit Average 17 -21 Coefficient	\$ 13,766.72	\$ 13,766.72	\$ 13,766.72
Z Merit Average 17-21	-0.5	1.5	0.5

Table 2: Colorado Equal Pay for Equal Work Act Model Examples
Four instructor rank faculty in the same college with differences in
Rank, Years in Position, Years at CU, and
Department

Note: these examples represent generic members of these faculty groups and do not reflect the actual salaries or other characteristics of actual faculty members.

	Instructor W	Senior Instructor X	Senior Instructor Y	Senior Instructor Z
Actual Salary as of 1/1/2022 with 3% base building increase	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000
Predicted Salary	\$ 84,592	\$ 90,707	\$ 82,896	\$ 94,639
Difference from Predicted	\$ 408	\$ (5,707)	\$ 2,104	\$ (9,639)
Predicted salary	\$ 84,592	\$ 90,707	\$ 82,896	\$ 94,639
=	=	=	=	=
Intercept	\$ 88,181.49	\$ 88,181.49	\$ 88,181.49	\$ 88,181.49
+	+	+	+	+
Years in Position Coefficient	\$ 678.55	\$ 678.55	\$ 678.55	\$ 678.55
Years in Position Rank Value	5	20	20	5
+	+	+	+	+
Years at CU Coefficient	\$ (101.55)	\$ (101.55)	\$ (101.55)	\$ (101.55)
Years at CU Value	10	20	20	10
+	+	+	+	+
Department Coefficient	\$ 4,080.32	\$ (9,014.30)	\$ (16,825.30)	\$ 4,080.32
Department	EMEN	ATLS	HUEN	EMEN
+	+	+	+	+
Job Title Coefficient	\$ (10,046.80)	\$ -	\$ -	\$ -
Job Title	Instructor	Senior Instructor	Senior Instructor	Senior Instructor

The Annual Report on the Economic Status of the Profession, 2022–23

(JUNE 2023)

The COVID-19 crisis—an essential frame of reference for the AAUP’s analysis of the economic status of the profession since the onset of the pandemic in early 2020—appears to be waning. The World Health Organization declared an end to the COVID-19 pandemic emergency on May 5, 2023, and the US government followed suit on May 11. In addition to reporting the findings from the AAUP’s Faculty Compensation Survey, this year’s annual report examines whether economic conditions in the academy have returned to “normal” after three years of a global pandemic and considers whether those previous conditions were acceptable in the first place. The report documents the economic status of both full- and part-time faculty members in a year when the Consumer Price Index for All Urban Consumers (CPI-U) rose 6.5 percent from December 2021 to December 2022, following a 7.0 percent increase the previous year, which was the largest percentage increase since 1981. Furthermore, this report revisits the findings of the 2020–21 annual report, which documented institutional responses to COVID-19 during the first year of the pandemic, including salary freezes or reductions, elimination or reduction of fringe benefits, and terminations or nonrenewals of faculty appointments.

Survey Findings

Data collection for the AAUP’s 2022–23 Faculty Compensation Survey concluded in March, with nearly 900 US colleges and universities providing employment data for approximately 370,000 full-time and 90,000 part-time faculty members; more than 500 institutions also provided data on senior administrators. Participants reflected the wide range of institution types across the United States, including nearly 300 doctoral universities, 250 regional universities, 200 liberal arts

colleges, 100 community colleges, and 180 minority-serving institutions.

Full-Time Faculty Salaries. To determine the average percentage change in salaries for full-time faculty members from year to year, we analyzed data from institutions that participated in consecutive years (see table A). From fall 2021 to fall 2022, nominal (not inflation-adjusted) average salaries for full-time faculty members increased 4.1 percent for all academic ranks combined, the greatest one-year increase since 1990–91. However, real (inflation-adjusted) average salaries for full-time faculty members decreased 2.4 percent after accounting for the 6.5 percent increase in the December-to-December CPI-U, making this the third consecutive year that wage growth has fallen short of inflation. This year’s decrease in average real salaries for full-time faculty members follows last year’s 5.0 percent decrease, which was the greatest one-year decline observed since the AAUP began tracking the measure in 1972. This year, real average salaries decreased at 87.7 percent (767 out of 875) of colleges and universities participating in both the 2021–22 and 2022–23 surveys.

Survey report table 1, which appears with the other survey report tables following this report, presents average full-time faculty salaries by AAUP category, control and affiliation, and academic rank. Average salaries for full-time faculty members ranged from \$42,050 for unranked faculty members at associate’s institutions with ranking systems to \$218,005 for full professors at private-independent doctoral universities. Survey report table 4 presents full-time faculty salaries by region, and survey report table 5 presents full-time faculty salaries as percentile distributions of institutions.

TABLE A

Average percentage change in salaries for all full-time faculty in nominal and real terms for institutions reporting comparable data for adjacent one-year periods, and percentage change in the Consumer Price Index, 1971–72 to 2022–23

Interval	NOMINAL TERMS					REAL TERMS					Change in CPI-U
	Prof.	Assoc.	Asst.	Inst.	All ranks	Prof.	Assoc.	Asst.	Inst.	All ranks	
1971–72 to 1972–73	4.3	4.2	4.1	3.9	4.1	0.9	0.8	0.7	0.5	0.7	3.4
1972–73 to 1973–74	5.2	5.2	4.8	4.7	5.1	-3.2	-3.2	-3.6	-3.7	-3.3	8.7
1973–74 to 1974–75	5.8	5.9	5.7	5.8	5.8	-5.8	-5.7	-5.9	-5.8	-5.8	12.3
1974–75 to 1975–76	6.2	5.9	5.7	6.1	6.0	-0.7	-0.9	-1.1	-0.7	-0.8	6.9
1975–76 to 1976–77	4.7	4.7	4.7	4.7	4.7	-0.2	-0.2	-0.2	-0.2	-0.2	4.9
1976–77 to 1977–78	5.2	5.4	5.3	5.4	5.3	-1.4	-1.2	-1.3	-1.2	-1.3	6.7
1977–78 to 1978–79	5.6	5.8	5.9	6.0	5.8	-3.1	-2.9	-2.8	-2.7	-2.9	9.0
1978–79 to 1979–80	7.5	7.0	6.8	6.4	7.1	-5.1	-5.5	-5.7	-6.1	-5.4	13.3
1979–80 to 1980–81	8.8	8.5	8.8	8.6	8.7	-3.3	-3.6	-3.3	-3.5	-3.4	12.5
1980–81 to 1981–82	9.0	8.8	9.1	8.2	9.0	0.1	-0.1	0.2	-0.7	0.1	8.9
1981–82 to 1982–83	6.3	6.3	6.8	6.7	6.4	2.4	2.4	2.9	2.8	2.5	3.8
1982–83 to 1983–84	4.6	4.4	5.0	5.1	4.7	0.8	0.6	1.2	1.3	0.9	3.8
1983–84 to 1984–85	6.7	6.4	6.6	6.2	6.6	2.7	2.4	2.6	2.2	2.6	3.9
1984–85 to 1985–86	6.1	5.9	6.2	5.9	6.1	2.2	2.0	2.3	2.0	2.2	3.8
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
2006–07 to 2007–08	4.3	4.1	4.1	3.9	3.8	0.2	0.0	0.0	-0.2	-0.3	4.1
2007–08 to 2008–09	3.8	3.6	3.6	3.3	3.4	3.7	3.5	3.5	3.2	3.3	0.1
2008–09 to 2009–10	1.0	0.8	1.1	1.4	1.2	-1.7	-1.9	-1.6	-1.3	-1.5	2.7
2009–10 to 2010–11	1.4	1.2	1.5	0.9	1.4	-0.1	-0.3	0.0	-0.6	-0.1	1.5
2010–11 to 2011–12	2.2	1.6	2.1	1.7	1.8	-0.8	-1.4	-0.9	-1.3	-1.2	3.0
2011–12 to 2012–13	2.1	1.7	2.1	2.0	1.7	0.4	-0.0	0.4	0.3	-0.0	1.7
2012–13 to 2013–14	2.4	2.1	2.3	2.0	2.2	0.9	0.6	0.8	0.5	0.7	1.5
2013–14 to 2014–15	2.6	2.4	2.6	2.4	2.2	1.8	1.6	1.8	1.6	1.4	0.8
2014–15 to 2015–16	3.7	3.5	4.0	n.d.	4.0	3.0	2.8	3.3	n.d.	3.3	0.7
2015–16 to 2016–17	2.4	2.6	2.9	2.7	2.5	0.3	0.5	0.8	0.6	0.4	2.1
2016–17 to 2017–18	3.0	2.5	2.8	3.6	2.8	0.9	0.4	0.7	1.5	0.7	2.1
2017–18 to 2018–19	2.2	2.2	2.1	1.9	2.0	0.3	0.3	0.2	0.0	0.1	1.9
2018–19 to 2019–20	2.8	2.4	2.8	-3.0	2.8	0.5	0.1	0.5	-5.3	0.5	2.3
2019–20 to 2020–21	0.1	0.5	1.0	1.4	1.0	-1.3	-0.9	-0.4	0.0	-0.4	1.4
2020–21 to 2021–22	2.3	2.0	2.0	-0.1	2.0	-4.7	-5.0	-5.0	-7.1	-5.0	7.0
2021–22 to 2022–23	4.2	4.3	4.2	5.5	4.1	-2.3	-2.2	-2.3	-1.0	-2.4	6.5

Note: Consumer Price Index for all Urban Consumers (CPI-U) from the US Bureau of Labor Statistics; change calculated from December to December. 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-U. Figures for all faculty represent changes in salary levels from a given year to the next. Figures for prior years have been recalculated using a consistent level of precision. N.d. = no data.

TABLE B

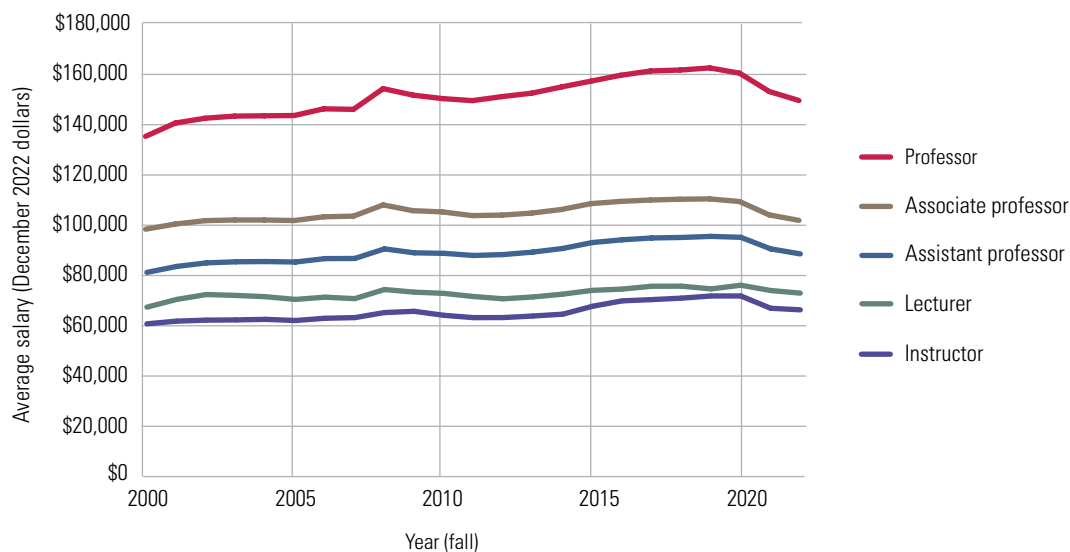
Average percentage change in salaries for continuing full-time faculty in nominal and real terms for institutions reporting comparable data for adjacent one-year periods, and percentage change in the Consumer Price Index, 1971–72 to 2022–23

Interval	NOMINAL TERMS					REAL TERMS					Change in CPI-U
	Prof.	Assoc.	Asst.	Inst.	All ranks	Prof.	Assoc.	Asst.	Inst.	All ranks	
1971–72 to 1972–73	4.7	5.7	5.9	6.3	5.5	1.3	2.2	2.4	2.8	2.0	3.4
1972–73 to 1973–74	5.4	6.3	6.5	7.0	6.1	-3.0	-2.2	-2.0	-1.6	-2.4	8.7
1973–74 to 1974–75	6.7	7.4	7.9	8.7	7.4	-5.0	-4.4	-3.9	-3.2	-4.4	12.3
1974–75 to 1975–76	7.1	7.7	8.0	8.5	7.6	0.2	0.8	1.0	1.5	0.7	6.9
1975–76 to 1976–77	6.2	6.8	7.2	7.4	6.7	1.2	1.8	2.2	2.4	1.7	4.9
1976–77 to 1977–78	5.9	6.0	5.9	5.9	5.9	-0.7	-0.6	-0.7	-0.7	-0.7	6.7
1977–78 to 1978–79	6.9	7.6	8.0	8.4	7.4	-1.9	-1.3	-0.9	-0.5	-1.5	9.0
1978–79 to 1979–80	7.8	8.2	8.7	8.9	8.1	-4.8	-4.5	-4.0	-3.8	-4.6	13.3
1979–80 to 1980–81	9.6	10.0	10.6	10.6	10.0	-2.6	-2.2	-1.7	-1.7	-2.2	12.5
1980–81 to 1981–82	9.4	10.0	10.7	10.6	9.9	0.4	1.0	1.6	1.5	0.9	8.9
1981–82 to 1982–83	7.5	7.8	8.5	8.3	7.9	3.5	3.8	4.5	4.3	3.9	3.8
1982–83 to 1983–84	5.4	5.7	6.3	5.9	5.7	1.6	1.8	2.4	2.0	1.8	3.8
1983–84 to 1984–85	6.7	7.2	7.8	7.9	7.1	2.7	3.2	3.8	3.8	3.1	3.9
1984–85 to 1985–86	7.0	7.4	7.9	7.6	7.3	3.1	3.5	4.0	3.7	3.4	3.8
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 2003–04	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	4.5	4.7	4.8	4.7	4.5	1.2	1.4	1.5	1.4	1.2	3.3
2004–05 to 2005–06	4.5	4.7	4.8	4.4	4.4	1.1	1.3	1.4	1.0	1.0	3.4
2005–06 to 2006–07	4.5	5.3	5.4	5.1	5.0	2.0	2.8	2.9	2.6	2.5	2.5
2006–07 to 2007–08	4.5	5.4	5.4	5.7	5.1	0.4	1.3	1.3	1.6	1.0	4.1
2007–08 to 2008–09	4.5	5.0	5.2	6.0	4.9	4.4	4.9	5.1	5.9	4.8	0.1
2008–09 to 2009–10	1.4	2.1	2.1	2.1	1.8	-1.3	-0.6	-0.6	-0.6	-0.9	2.7
2009–10 to 2010–11	2.2	2.7	2.8	2.3	2.5	0.7	1.2	1.3	0.8	1.0	1.5
2010–11 to 2011–12	2.7	3.1	3.3	3.2	2.9	-0.3	0.1	0.3	0.2	-0.1	3.0
2011–12 to 2012–13	2.9	3.4	3.5	3.6	3.2	1.2	1.7	1.8	1.9	1.5	1.7
2012–13 to 2013–14	3.0	3.5	3.7	3.6	3.4	1.5	2.0	2.2	2.1	1.9	1.5
2013–14 to 2014–15	3.2	3.7	3.8	3.8	3.7	2.4	2.9	3.0	3.0	2.9	0.8
2014–15 to 2015–16	2.9	3.7	3.8	4.3	3.4	2.2	3.0	3.1	3.6	2.7	0.7
2015–16 to 2016–17	2.7	3.3	3.6	3.6	3.0	0.6	1.2	1.5	1.5	0.9	2.1
2016–17 to 2017–18	2.9	3.4	3.5	3.6	3.3	0.8	1.3	1.4	1.5	1.2	2.1
2017–18 to 2018–19	2.7	3.3	3.4	3.7	3.1	0.8	1.4	1.5	1.8	1.2	1.9
2018–19 to 2019–20	2.8	3.3	3.6	3.4	3.2	0.5	1.0	1.3	1.1	0.9	2.3
2019–20 to 2020–21	0.8	1.4	1.5	1.5	1.2	-0.6	0.0	0.1	0.1	-0.2	1.4
2020–21 to 2021–22	2.5	3.1	3.2	3.3	2.9	-4.5	-3.9	-3.8	-3.7	-4.1	7.0
2021–22 to 2022–23	4.3	4.9	5.4	5.6	4.8	-2.2	-1.6	-1.1	-0.9	-1.7	6.5

Note: Consumer Price Index for all Urban Consumers (CPI-U) from the US Bureau of Labor Statistics; change calculated from December to December. 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-U. 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. Figures for prior years have been recalculated using a consistent level of precision.

FIGURE 1

Average full-time faculty salaries decreased for the third consecutive year, after adjusting for inflation.
Average full-time faculty salaries, by academic rank, fall 2000 through fall 2022 (December 2022 dollars)



Note: Figure represents average full-time faculty salary previously published in the *Annual Report on the Economic Status of the Profession*, adjusted for inflation (December 2022 dollars) using the Consumer Price Index Retroactive Series (R-CPI-U-RS), which includes revised measures to reflect current methodologies. Salary may vary from previously published values.

Source: AAUP Faculty Compensation Survey, US Bureau of Labor Statistics Consumer Price Index Retroactive Series (R-CPI-U-RS).

Survey report table 2 presents the percentage change from previously published 2021–22 average full-time faculty salaries.¹ Average salaries for full-time faculty members increased 4.5 percent among public institutions, 3.8 percent among private-independent institutions, and 2.7 percent among religiously affiliated institutions. Nominal average salaries increased 3.9 percent among doctoral institutions, 3.5 percent among master’s institutions, 2.7 percent among baccalaureate institutions, and 4.0 percent among associate’s institutions with ranking systems. Associate’s institutions without ranks reported average salaries 0.6 percent lower than last year, but that figure may not represent trends across all such institutions because this data sample included just twenty-one institutions. Nominal average salaries increased at 86.2 percent (754 out of 875) of colleges and universities participating in both 2021–22 and 2022–23 surveys.

1. The percentage change in salary for all full-time faculty members listed in survey report table 2 may be biased because some institutions did not participate in both years.

Figure 1 presents real average full-time faculty salaries since fall 2000. In the 2000s, real average salaries reached a peak in 2008, in the middle of the Great Recession that occurred from late 2007 to 2009. After 2008, real average salaries trended down to a low point in 2011, then trended up to a peak in 2019. Since 2019, real average salaries declined sharply for three consecutive years, as described earlier, with a cumulative decrease of 7.5 percent from fall 2019 to fall 2022 after adjusting for the 15.8 percent increase in the CPI-U during that period. In fall 2022, the average salary of full-time faculty members in inflation-adjusted terms was 4.2 percent less than the average salary in fall 2008—the middle of the Great Recession.

Full-Time Continuing Faculty Salaries. To measure how salaries have changed for those already in the profession, the Faculty Compensation Survey collects employment data on full-time *continuing* faculty members—those who were employed full time in the previous year and remain employed full time in the current year. Previous and current average salaries are collected for continuing faculty members by the ranks

they held in the previous year. This cohort analysis excludes newly appointed and departed faculty members, thus providing a reliable indication of how much salaries have changed for those already in the profession. Percentage change in average salary for full-time continuing faculty members is reported by rank and institution type in survey report table 2, with corresponding annual results listed by rank in table B.

In fall 2022, average salaries for continuing full-time faculty members increased 4.8 percent in nominal terms but decreased 1.7 percent in real terms, marking the third consecutive year that average salary growth has fallen short of inflation. For full professors, associate professors, assistant professors, and instructors, the average increase in nominal salaries was 4.3 percent, 4.9 percent, 5.4 percent, and 5.6 percent, respectively. After adjustment for inflation, their average salaries decreased 2.2 percent, 1.6 percent, 1.1 percent, and 0.9 percent, respectively.

Salary growth for continuing full-time faculty members varied by institution type, ranging from an average increase of 5.7 percent among public master's institutions to 3.1 percent among public associate's institutions with ranking systems. Only eight institutions (1.0 percent) reported a decrease in average salaries for continuing full-time faculty members, but after adjusting for inflation, 677 institutions (81.8 percent) reported a decrease. The findings varied across academic ranks: 85.8 percent of institutions reported a decrease in inflation-adjusted average salaries for full professors, 78.0 percent reported a decrease for associate professors, 72.4 percent reported a decrease for assistant professors, and 72.4 percent reported a decrease for instructors.

Full-Time Faculty Fringe Benefits. In 2022–23, 96.5 percent of full-time faculty members were eligible to participate in retirement plans, a 2.1-point increase from 2020–21, the first year of the COVID-19 pandemic, when 94.4 percent of full-time faculty members received this benefit. This finding indicates that some institutions may have restored retirement benefits that were eliminated or reduced in 2020–21 in response to the pandemic, a topic discussed in the 2020–21 annual report. Average institutional expenditures for faculty members who were covered was \$12,607, equivalent to 11.7 percent of the average salary for all full-time faculty members (see survey report table 8). Institutional expenditures on retirement plans averaged \$12,296 per full-time faculty member, including those not covered, equivalent to 11.4 percent of the average salary

(\$108,145) at the 896 institutions reporting retirement benefits data (not shown in table).

There was little change in the percentage of full-time faculty members eligible to participate in medical insurance plans. Institutions reported covering 94.2 percent of full-time faculty members, with an average institutional expenditure of \$12,335 for faculty members who were covered, equivalent to 12.0 percent of the average salary for all full-time faculty members (see survey report table 9). Average institutional expenditure toward medical insurance plans was \$12,100 per full-time faculty member, including those not covered, equivalent to 11.2 percent of the average salary (\$108,145) at the 896 institutions reporting medical insurance benefits data (not shown in table).

The findings above suggest that average contributions by institutions to full-time faculty retirement plans and medical insurance premiums have increased since the first year of the COVID-19 pandemic, when some institutions eliminated or reduced fringe benefits for full-time faculty members. But have the contribution levels returned to “normal” (prepandemic) levels? To answer this question, we analyzed full-time faculty benefits data for the cohort of all 679 institutions that reported such data for all years from fall 2019 through fall 2022 (see table C).

For retirement plan contributions, table C shows that the median institutional contribution per full-time faculty member decreased by 2.2 percent from fall 2019 to fall 2020, but subsequently increased by 4.5 percent in fall 2021 and by 6.3 percent in fall 2022, for a nominal three-year increase of 8.6 percent. In real terms, the median contribution by institutions to retirement plans for full-time faculty members decreased by 6.2 percent from fall 2019 to fall 2022, after adjusting for the 15.8 percent increase in the CPI-U for the same period. There was a large disparity between public and private institutions, with the nominal median institutional contribution per full-time faculty member increasing 9.4 percent among public institutions and decreasing 1.6 percent and 13.4 percent among private-independent and religiously affiliated institutions, respectively, from fall 2019 to fall 2022. In real terms, the median institutional contribution per full-time faculty member to retirement plans decreased by 5.6 percent among public institutions, by 15.0 percent among private-independent institutions, and by a staggering 25.2 percent among religiously affiliated institutions.

For medical insurance contributions, table C shows that the median contribution that institutions made per full-time faculty member increased

TABLE C

Percentage change in median contribution to medical and retirement benefits per full-time faculty member since fall 2019, nominal and real, by institutional control and affiliation, fall 2020 to fall 2022

Benefit category	All combined					Public				
	1-year change (nominal)			3-year change		1-year change (nominal)			3-year change	
	2020	2021	2022	Nominal	Real	2020	2021	2022	Nominal	Real
Medical	+4.4%	−0.4%	+3.0%	+7.2%	−7.5%	+6.8%	+1.6%	+4.2%	+13.2%	−2.3%
Retirement	−2.2%	+4.5%	+6.3%	+8.6%	−6.2%	−1.0%	+3.5%	+6.7%	+9.4%	−5.6%

Benefit category	Private-independent					Religiously affiliated				
	1-year change (nominal)			3-year change		1-year change (nominal)			3-year change	
	2020	2021	2022	Nominal	Real	2020	2021	2022	Nominal	Real
Medical	+3.0%	+2.5%	+3.3%	+9.1%	−5.8%	+0.9%	−0.8%	+4.5%	+4.6%	−9.7%
Retirement	−20.3%	+17.6%	+5.0%	−1.6%	−15.0%	−26.2%	+17.4%	0.0%	−13.4%	−25.2%

Note: The table represents all 679 institutions that submitted full-time faculty benefits data for both benefit categories for all years (fall 2019 through fall 2022). Real three-year change is adjusted for 15.8 percent inflation that occurred from December 2019 to December 2022.

Source: Matched institutional records from the AAUP Faculty Compensation Survey and US Bureau of Labor Statistics Consumer Price Index Retroactive Series (R-CPI-U-RS).

by 4.4 percent from fall 2019 to fall 2020, the first year of the COVID-19 pandemic, then decreased by 0.4 percent in fall 2021, and finally increased by 3.0 percent in fall 2022, for a nominal three-year increase of 7.2 percent. In real terms, the median institutional contribution to medical insurance for full-time faculty members decreased by 7.5 percent from fall 2019 to fall 2022. There was a disparity between public and private institutions, with the nominal median contribution per full-time faculty member increasing 13.2 percent among public institutions, 9.1 percent among private-independent institutions, and a more modest 4.6 percent among religiously affiliated institutions from fall 2019 to fall 2022. In real terms, the median contribution per full-time faculty member for medical insurance decreased 2.3 percent among public institutions, 5.8 percent among private-independent institutions, and 9.7 percent among religiously affiliated institutions.

The findings above—that employer contributions to full-time faculty retirement plans and for medical insurance premiums differ markedly by institutional control and affiliation—are in line with recent findings by Robert Toutkoushian, who analyzed forty-one years of data on fringe benefits provided to full-time faculty members and found similar disparities in benefits between public and private four-year institutions. This

is an important finding because, as the AAUP and others have documented for years, full-time faculty salaries are often considerably higher among private institutions than among public institutions. But as Toutkoushian suggested in the 2023 report *A Closer Look at Fringe Benefits for Faculty*, the total compensation gap between public and private four-year institutions may not be as great as most people assume.²

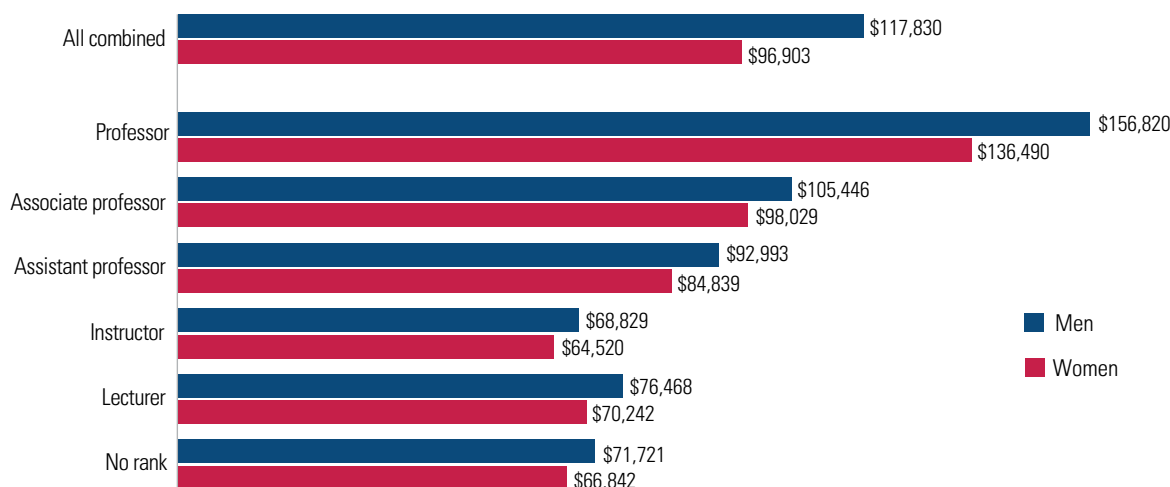
Dependent tuition benefits for full-time faculty members are presented in survey report table 10. More than 93 percent of institutions reported providing full-time faculty members some form of tuition waivers for dependents in 2022–23, with 88.7 percent providing dependent tuition waivers at their institutions; 59.9 percent provided full waivers and 28.8 percent provided partial waivers. Results varied considerably by institutional control. Among public institutions, which employ more than two-thirds of full-time faculty members in US colleges and universities, less than one-third (31.8 percent) provided full tuition benefits at their institutions, with nearly half (48.1 percent)

2. Robert A. Toutkoushian, *A Closer Look at Fringe Benefits for Faculty*, TIAA Institute, February 14, 2023, <https://www.tiaa.org/public/institute/publication/2023/a-closer-look-at-fringe-benefits-for-faculty>.

FIGURE 2

Full-time women faculty members earn less than men at all ranks.

Average salary for men and women full-time faculty members, by academic rank, fall 2022 (dollars)



Note: The figure is based on 877 institutions with faculty ranking systems reporting full-time faculty salary data. The figure excludes twenty-one associate’s institutions without faculty ranking systems. Reporting on nonbinary faculty members or faculty members whose gender is unknown is not possible at this time because the Integrated Postsecondary Education Data System (IPEDS) Human Resources survey assumes binary genders (men or women).

Source: AAUP Faculty Compensation Survey.

providing only partial waivers. In contrast, about three-quarters (73.7 percent) of private-independent institutions provided full waivers, and 83.8 percent of religiously affiliated institutions provided full waivers.

Almost half (47.1 percent) of institutions provided tuition waivers at other specified institutions, usually through a consortium or system, with 27.8 percent providing full waivers. These waivers were far more prevalent at private institutions than at public ones; 53.2 percent of private-independent institutions and 67.7 percent of religiously affiliated institutions provided tuition waivers at other specified institutions, compared with 26.8 percent of public institutions. Just over half (52.1 percent) of institutions were members of Tuition Exchange, a competitive reciprocal scholarship program for dependents of eligible faculty and staff, with private institutions comprising the majority of members. Among religiously affiliated institutions, 89.7 percent were members of Tuition Exchange, as were 69.0 percent of private-independent institutions. Just over 11 percent of public institutions were members of Tuition Exchange in 2022–23.

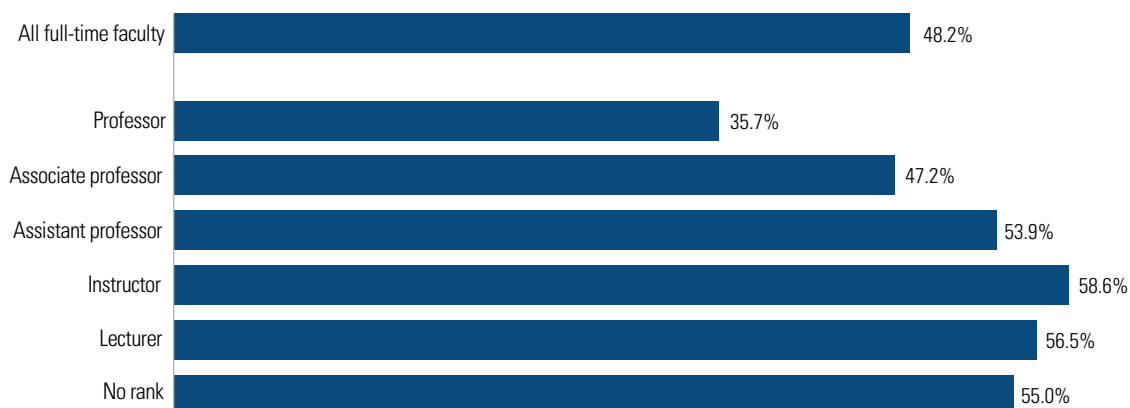
Private institutions were far more likely than public institutions to vary dependent tuition benefits based on

years of service, including 39.2 percent of independent institutions and 41.2 percent of religiously affiliated institutions. Among public institutions, only 8.5 percent offered dependent tuition benefits that varied depending on years of service. Overall, 27.3 percent of institutions did so. Among public institutions, 15.5 percent reported offering no dependent tuition benefits to full-time faculty members, and among private institutions, only one institution reported offering no such benefits.

Gender Pay Gaps. Average full-time faculty salaries for women were 82.3 percent of those for men in 2022–23. In other words, a woman earned 82 cents for each dollar a man earned, consistent with US Bureau of Labor Statistics findings of median earnings across all sectors. Full-time women faculty members earned less than men across all academic ranks, but the gender salary-equity ratio—the ratio of women’s to men’s salaries—was lowest (87.0) at the full professor rank, where women earned a salary of \$136,490, on average, compared with \$156,820 for men (see figure 2 and survey report table 3). Full-time women faculty members are under-represented at higher ranks (see figure 3 and survey report tables 6 and 7), explaining why the overall

FIGURE 3

Representation of women among full-time faculty members decreases with progression in rank.
 Percentage of full-time faculty members who are women, by academic rank, fall 2021



Note: Figures represent nonmedical instructional staff (instruction/research/public service or primarily instruction), with or without formal faculty status, in degree-granting nonprofit institutions participating in Title IV federal financial aid programs in the United States (fifty states and the District of Columbia).

Source: IPEDS Human Resources survey component (fall staff) 2021–22 provisional release. Data retrieved and compiled by the AAUP Research Department on December 23, 2022.

gender salary-equity ratio for all ranks combined is lower than the ratio for any particular academic rank.

The AAUP has shined a light on gender inequities in academia for many years. The gender salary-equity ratio for full professors (87.0) is now lower than that reported forty years ago (89.0), and the latest federal figures show only 36 percent of full professors in fall 2021 were women.³ The AAUP is committed to gender equity, and the Department of Research will continue monitoring the gaps in pay and representation. For a more in-depth look at gender discrimination in US higher education, including the latest federal employment and salary figures, see the 2023 report *A Path toward Equity for Women Faculty in Higher Education*, commissioned by the TIAA Institute.⁴

3. Reporting on nonbinary faculty members or faculty members whose gender is unknown is not possible at this time because the Integrated Postsecondary Education Data System (IPEDS) Human Resources survey assumes binary genders (men or women), stating that “it is up to the institution to decide how best to handle reporting individuals whose gender is unknown.”

4. Glenn Colby and Ziyang Bai, *A Path Toward Equity for Women Faculty in Higher Education*, TIAA Institute, March 20, 2023, <https://www.tiaa.org/public/institute/publication/2023/a-path-toward-equity-for-women-faculty-in-higher-education>.

Part-Time Faculty Members. Data on part-time faculty employment can be exceedingly difficult for many institutions to compile, and this year only 352 (39.2 percent) of 899 responding institutions provided complete data on part-time faculty members paid on a per-course-section basis, with wide variations in response rates between institution types. For example, only forty of 231 doctoral institutions responding to the survey (17.3 percent) reported average part-time faculty pay per course section. Anecdotally, large universities tend to manage part-time faculty appointment and class assignment information through local mechanisms that are scattered across their institutions—for example, in spreadsheets managed by department chairs—rather than through centralized database systems. This may explain why an additional forty doctoral institutions were able to provide their head counts of part-time faculty members, along with fringe benefits information, but were not able to provide salary data. In any case, the findings are not representative of US higher education as a whole; they represent only institutions that have readily available centralized information on part-time faculty employment, including class assignments. Because the AAUP Faculty Compensation Survey was administered in the middle of the 2022–23 academic year—before many institutions

even set their class schedules for spring 2023—data on part-time faculty members were collected for the prior academic year, 2021–22. This ensured that institutions could provide data representing an entire academic year.

Survey report table 15 shows that among responding institutions, part-time faculty members who were paid on a per-course-section basis in 2021–22 received an average of \$3,874 per three-credit-course section, a 0.8 percent increase from 2020–21, when the average pay was \$3,843, but an 8.9 percent increase from 2019–20, when the average pay was \$3,556. Average rates of pay varied widely among institution types, ranging from \$2,839 in public associate’s institutions without ranks to \$6,056 in religiously affiliated doctoral institutions. Minimum and maximum pay rates for teaching a course section spanned huge ranges across all institutional categories, with minima often falling under \$1,000 and maxima often exceeding \$20,000.

Most faculty members who were paid per course section received neither retirement plan nor medical insurance contributions in 2020–21, with only 34.0 percent of institutions contributing toward retirement plans for some or all part-time faculty members, and only 31.4 percent of institutions contributing to premiums for medical insurance plans. Associate’s institutions were most likely to contribute to retirement plans for part-time faculty members paid per course section, with 55.7 percent reporting such contributions. Doctoral institutions were most likely to contribute to medical insurance premiums, with 53.6 percent providing this benefit (see survey report table 16).

Administrator Salaries. Median salaries for college and university presidents in 2022–23 ranged from just over \$260,000 at public associate’s institutions to \$800,000 at private-independent doctoral universities (see survey report table 11). Ratios of presidents’ to full professors’ average salaries ranged from just under three to one in public baccalaureate institutions to more than five to one in private-independent and religiously affiliated doctoral institutions (see survey report table 12). For chief academic officers, median salaries ranged from around \$155,000 in public baccalaureate institutions to \$475,000 in religiously affiliated doctoral institutions (see survey report tables 13 and 14). For chief financial officers, median salaries ranged from around \$148,000 in associate’s institutions without ranking systems to around \$475,000 in religiously affiliated doctoral institutions.

Prior to the COVID-19 pandemic, growth in salaries for college and university presidents outpaced the growth in full-time faculty salaries for years. But changes in salaries for key administrators were minimal during the first year of the pandemic, with average salaries for presidents of colleges and universities decreasing in nominal terms by 1.1 percent from fall 2019 to fall 2020. This year, we found that the ratios of presidents’ to full professors’ average salaries were generally higher than those reported in fall 2020, confirming what we speculated in the 2020–21 annual report: presidential salary freezes or cuts in fall 2020 may have been temporary. For example, the median ratio was 4.4 among doctoral institutions in fall 2022, compared with 4.2 in fall 2020. Similar increases were reported for chief academic officers and chief financial officers.

The findings above suggest that presidents and other key administrators have received greater salary increases over the course of the pandemic, on average, than full-time faculty members. To explore this issue further, we conducted a cohort analysis of all 344 institutions that reported salary data for key administrator positions in all years from fall 2019 through fall 2022 (see table D).

For the first year of the cohort analysis, shown in table D, the findings are similar to those reported in our 2020–21 annual report, which showed that salaries for presidents and other key administrators did not increase more than salaries for full-time faculty members during the first year of the pandemic. In fact, among the institutions included in the cohort analysis, nominal full-time faculty salaries increased 0.8 percent from fall 2019 to fall 2020, on average, while median salaries for presidents *decreased* 4.8 percent during the same period. But in the second year of the pandemic, from fall 2020 to fall 2021, median salaries for presidents increased a staggering 10.3 percent, indicating that the decrease in fall 2020 was likely the result of temporary freezes or cuts, while median salaries for other key administrators were more modest and average salaries for full-time faculty members increased only 2.3 percent.

Overall, salary growth for college and university presidents outpaced salary growth for full-time faculty members from the beginning of the pandemic to fall 2022. Among the cohort of institutions that reported key administrator salary data for all years from fall 2019 through fall 2022, median presidential salaries increased 9.6 percent in nominal terms, compared with a 7.1 percent increase in average salaries

TABLE D

Percentage change in median salaries for senior administrators and average salaries of full-time faculty members since fall 2019, nominal and real, by institutional control and affiliation, fall 2020 to fall 2022

Position	All combined					Public				
	1-year change (nominal)			3-year change		1-year change (nominal)			3-year change	
	2020	2021	2022	Nominal	Real	2020	2021	2022	Nominal	Real
President	-4.8%	+10.3%	+4.4%	+9.6%	-5.4%	0.0%	+6.7%	+5.5%	+12.5%	-2.8%
Chief academic officer	-0.5%	+1.5%	+4.1%	+5.2%	-9.2%	+2.9%	-0.3%	+7.2%	+10.0%	-5.0%
Chief financial officer	+0.5%	+3.8%	+8.0%	+12.7%	-2.7%	-2.8%	+1.4%	+11.4%	+9.8%	-5.2%
Full-time faculty (all ranks combined)	+0.8%	+2.3%	+3.9%	+7.1%	-7.6%	+0.9%	+2.3%	+4.0%	+7.4%	-7.2%

Position	Private-independent					Religiously affiliated				
	1-year change (nominal)			3-year change		1-year change (nominal)			3-year change	
	2020	2021	2022	Nominal	Real	2020	2021	2022	Nominal	Real
President	-4.1%	+14.6%	+0.3%	+10.3%	-4.8%	-0.0%	+3.7%	+4.5%	+8.4%	-6.4%
Chief academic officer	-1.2%	-2.7%	+7.7%	+3.6%	-10.6%	-1.4%	+5.2%	+0.3%	+4.1%	-10.1%
Chief financial officer	-3.9%	+5.4%	+2.9%	+4.2%	-10.0%	-1.6%	+3.4%	+1.7%	+3.5%	-10.6%
Full-time faculty (all ranks combined)	+0.5%	+2.1%	+4.2%	+6.8%	-7.8%	-0.4%	+1.7%	+2.5%	+3.8%	-10.4%

Note: The table represents all 344 institutions that submitted salary data for all three senior administrator positions for all years (fall 2019 through fall 2022). The table excludes associate’s institutions without faculty ranking systems. Real three-year change is adjusted for 15.8 percent inflation that occurred from December 2019 to December 2022.

Source: Matched institutional records from the AAUP Faculty Compensation Survey and US Bureau of Labor Statistics Consumer Price Index Retroactive Series (R-CPI-U-RS).

for full-time faculty members during the same period. Median salaries for chief financial officers increased 12.7 percent from fall 2019 through fall 2022—an even greater increase than presidents received—while median salaries for chief academic officers increased a more modest 5.2 percent during the same period. Median salaries for key administrators increased the most among public institutions, including median salaries for presidents (a 12.5 percent increase), chief academic officers (9.8 percent), and chief financial officers (9.8 percent), all of whom received greater increases than did full-time faculty members at public institutions, who saw a 7.4 percent increase, on average.

In general, salary growth for presidents and other key administrators has been substantially greater than salary growth for full-time faculty members since the start of the pandemic, as was the case for years leading up to the pandemic. But after adjusting for the 15.8 percent increase in the CPI-U that occurred from December 2019 to December 2022, real median

salaries for presidents, chief academic officers, and chief financial officers decreased 5.4 percent, 9.2 percent, and 2.7 percent, respectively, while real average full-time faculty salaries decreased 7.6 percent among the 344 institutions reporting salary data for key administrator positions. These findings illustrate the financial toll the pandemic exerted across all higher education workers, but they also suggest that presidents and other key administrators may have been better insulated from its effects than the faculty.

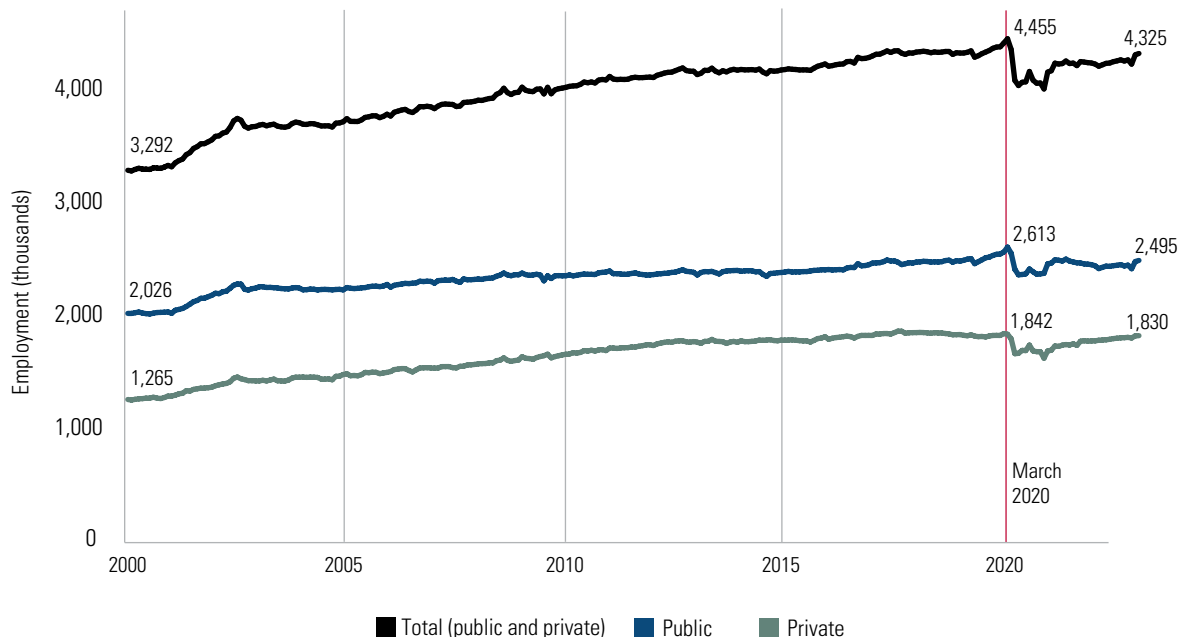
The Academic Labor Force

COVID-19 has had devastating effects on employment in US higher education, which has not returned to prepandemic levels (see figure 4). The impact of the pandemic on the academic labor force—faculty members and graduate student employees—has also been severe, with the greatest effects on faculty members serving on contingent appointments, who lack the protection of tenure and are more likely to be women and people of color. An in-depth discussion of academic

FIGURE 4

College and university employment has not returned to prepandemic levels.

Employment in colleges and universities (thousands), seasonally adjusted, by institutional control, January 2000 through February 2023



Note: The vertical red line represents March 2020, when the World Health Organization declared COVID-19 a global pandemic.

Source: US Bureau of Labor Statistics, Employment, Hours, and Earnings from the Current Employment Statistics survey (National), Series IDs CES6561130001 (privately owned colleges and universities) and CES9092161101 (publicly owned postsecondary schools), retrieved from <https://beta.bls.gov/labs/> on April 17, 2023.

labor force trends would be beyond the scope of this report—our recent *Academe* data snapshot, “Tenure and Contingency in US Higher Education,” summarizes data on patterns of faculty appointments and graduate student employment in US higher education from fall 1987 through fall 2021.⁵ Instead, this section considers only how the composition of academic workforce changed during the pandemic.

Our analysis of National Center for Education Statistics (NCES) employment data shows that the number of full-time non-tenure-track faculty members employed decreased by more than 6,300 (4.2 percent) from fall 2019 to fall 2020 and recovered by only about 50 percent in fall 2021. Even worse, the number of part-time faculty members decreased by

about 50,260 (8.3 percent) from fall 2019 to fall 2020 and recovered by only about 20 percent in fall 2021. In all, the number of faculty members employed on contingent appointments decreased by over 57,000 (6.9 percent) from fall 2019 to fall 2020, and contingent faculty employment has recovered by only about 25 percent in fall 2021. The decreases were driven, in large part, by decreases in student enrollment during the pandemic, with fall enrollment dropping 5.3 percent nationally from 2019 to 2020, followed by a 3.2 percent decline from 2020 to 2021, according to National Student Clearinghouse fall enrollment estimates.

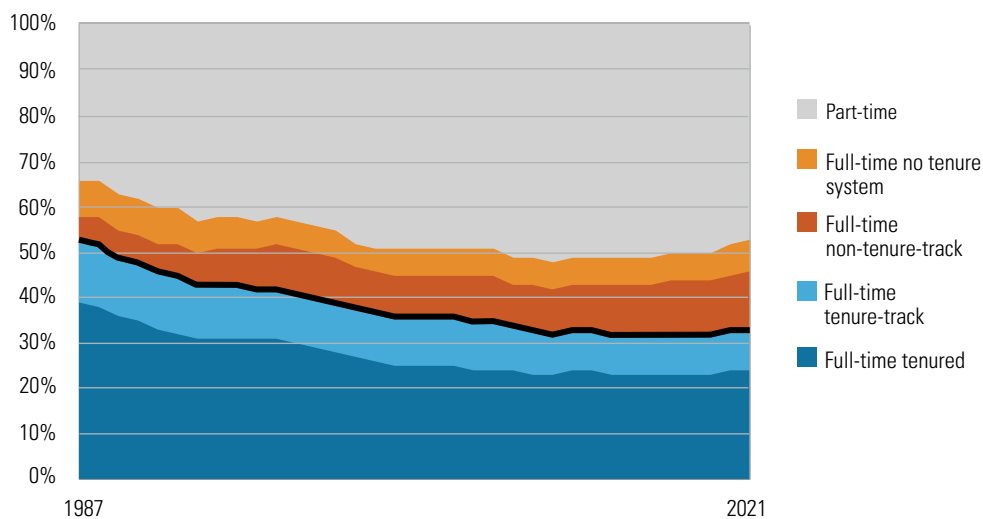
The trend among tenure-track faculty members is also alarming. From fall 2019 to fall 2020, the number of tenure-track faculty members decreased by more than 4,500 (4.0 percent). But unlike the patterns for contingent appointments described above, the number of tenure-track faculty members did not partially recover in fall 2021; instead, the number further

5. Glenn Colby, “Tenure and Contingency in Higher Education,” *Academe*, Spring 2023, <https://www.aaup.org/article/data-snapshot-tenure-and-contingency-us-higher-education>.

FIGURE 5

The US academic workforce has shifted from mostly full-time tenured or tenure-track faculty members to mostly faculty members on contingent appointments.

Percentage of total number of faculty members, by appointment type, fall 1987 through fall 2021



Note: Figures represent nonmedical instructional staff (instruction/research/public service or primarily instruction), with or without formal faculty status, in degree-granting nonprofit institutions participating in Title IV federal financial aid programs in the United States (fifty states and the District of Columbia).

Source: Figures from 1987 through 2001 were derived from estimates from the National Study of Postsecondary Faculty series, which were nationally representative samples with margins of sampling error; figures from 2002 through 2021 represent data from the IPEDS Human Resources survey component (Employees by Assigned Position), which is a census survey required for all institutions participating in Title IV programs, including the 2021–22 provisional release. Data retrieved and compiled by the AAUP Research Department on December 23, 2022.

decreased by nearly 5,100 from fall 2020 to fall 2021, for a total decrease of more than 9,600 (8.6 percent) from fall 2019 to fall 2021.

Graduate student employees have become an increasingly important part of the academic labor force in US higher education, but NCES collects only limited data on these workers. Many institutions lack the capacity to report reliably to NCES the number of graduate student employees whom the AAUP would regard as functionally serving on contingent faculty appointments, so analysis options are limited. But our analysis of NCES data does indicate that the number of graduate student employees has skyrocketed by about 44 percent in recent decades—from around 255,000 in fall 2002 to about 365,000 in fall 2021. In comparison, the number of faculty members—those reported to NCES as “instructional staff” employees—increased about 19 percent during the same twenty-year period. The number of graduate student employees plummeted when the COVID-19 pandemic arrived, decreasing by 13,551 (3.7 percent) from fall

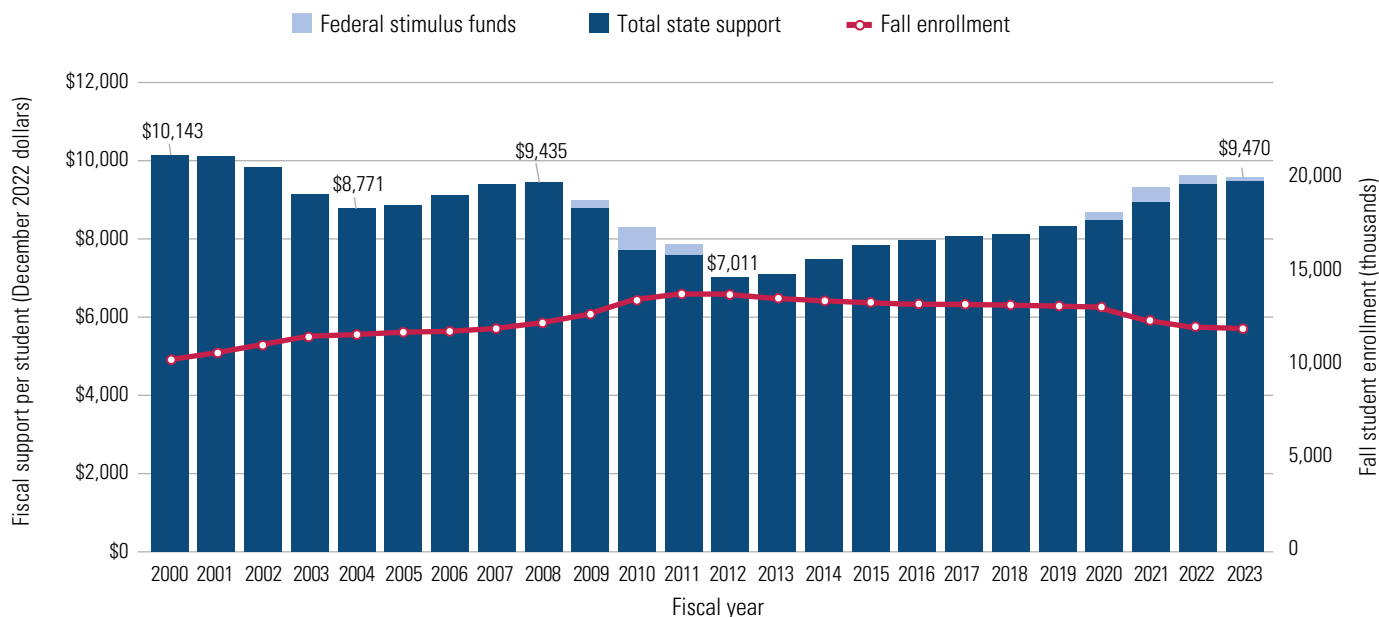
2019 to fall 2020 but then recovering by 90 percent in fall 2021. In contrast, the number of faculty members overall decreased by 61,737 (5.0 percent) from fall 2019 to fall 2020, but then recovered by only 10 percent in fall 2021.

Figure 5 shows historical trends in the percentage of faculty members in different types of appointments. At a glance, it may seem like a good sign that the proportion of appointments with tenure increased from fall 2019 to fall 2021, including a 1.1 percentage-point increase from fall 2019 to fall 2020. But a closer look reveals that the percentage of full-time faculty members with tenure increased over that period only because the number of contingent and tenure-track appointments decreased at a greater rate, as described above. In fact, the number of full-time tenured faculty members decreased by more than 3,100 (1.1 percent) from fall 2019 to fall 2021. We can only speculate about why the number of full-time tenured faculty members decreased, but some institutions offered early-retirement programs to try to balance their

FIGURE 6

State fiscal support for higher education remains at 2008 levels.

State fiscal support per full-time equivalent student, fiscal year 2000 through fiscal year 2023 (December 2022 dollars)



Note: State fiscal support includes taxes, other state monies, and federal stimulus funds from the American Recovery and Reinvestment Act of 2009 (2009 through 2012) and the Coronavirus Aid, Relief, and Economic Security Act (2020 through 2023), the Coronavirus Response and Relief Supplemental Appropriations Act, 2021 (2021 through 2023), and the American Rescue Plan Act of 2021 (2021 through 2023). Fall enrollment was calculated using data from the Integrated Postsecondary Education Data System (IPEDS) through fiscal year 2021, then projected using estimates provided by the National Student Clearinghouse for fiscal years 2022 and 2023.

Source: Grapevine project of the Center for the Study of Education Policy at Illinois State University, IPEDS Fall Enrollment survey component 2020–21 provisional release, the National Student Clearinghouse’s “Term Enrollment Estimates: Fall 2021” report, and the US Bureau of Labor Statistics Consumer Price Index Retroactive Series (R-CPI-U-RS). Data compiled by the AAUP Research Department.

budgets early in the pandemic, and perhaps in some instances the working conditions were simply too dire for more senior faculty members to remain in the profession. In any case, the Association’s concern is whether full-time tenured faculty members who depart, through retirement or otherwise, are being replaced by faculty members on contingent appointments and graduate student employees, all of whom have less security, protection for academic freedom, remuneration, and support.

Conclusion and Recommendations

Beyond presenting the results from this year’s Faculty Compensation Survey, this report highlights our concerns about an increased reliance among US colleges and universities on faculty members holding contingent appointments that are ineligible for tenure, as well as graduate student employees who function

as faculty members. The steep drop during the pandemic in the number of faculty members serving on contingent appointments should remind us all that the purpose of tenure is not only to protect academic freedom in teaching, research, and extramural activities but also to provide a degree of economic security that enables institutions to better attract and retain a talented and diverse faculty.

Student enrollment and the economic status of the faculty are inextricably linked, in large part because tuition is usually the main source of revenue for colleges and universities. Even before the COVID-19 pandemic, some researchers had forecasted that the college-age population will shrink considerably in some states beginning in 2025—a trend known as “the enrollment cliff”—because of lower birth rates during the Great Recession coupled with relocation patterns. Admissions and financial aid offices can adjust policies

to respond to minor short-term shifts in student demographics, but they are not miracle workers. And although state fiscal support for higher education has largely returned to the levels of 2008 (see figure 6), which was the middle of the Great Recession, fiscal support varies widely between states, and it seems unlikely that all states will allocate funds for higher education at adequate levels in the future. Faculty members must work collectively with administrators, students, elected officials, citizens, and each other to anticipate and prepare for changes coming to higher education, beginning with efforts to bolster tenure across the country.

This report has documented the severe impact of the COVID-19 pandemic on higher education. The academy continues to face increasing political and corporate intrusions, austerity measures, and attacks on knowledge and expertise. These events, along with back-to-back years of soaring inflation, are shaping collective consciousness in US academe, as evidenced by fifteen academic worker strikes in the United States in 2022—the greatest number in at least twenty years, according to *The Guardian*, including a six-week strike of forty-eight thousand graduate student employees and postdoctoral fellows throughout the University of California system. While some may view the global pandemic as a unifying force among faculty members and graduate student employees who seek collectively to safeguard their academic freedom and economic security, the crisis has also revealed—or even exacerbated—deep ideological divides both on and off campuses. Either way, the quality of US higher education suffers whenever a community college lays off part-time faculty members, whenever a private liberal arts college cuts fringe benefits, whenever graduate student employee pay fails to keep up with the cost of living, or whenever an entire state university system eliminates tenure. Such upheavals—along with the continued declines in real wages of faculty members, growth in reliance on faculty members on contingent appointments, gender pay inequality, and appallingly low pay for adjunct faculty members documented in this report—diminish the ability of colleges and universities to attract and retain talented faculty members, threatening the standards of the profession and the success of institutions in fulfilling their obligations to students and to society.

The AAUP's Department of Research will continue to support efforts to uphold the standards of the academic profession by documenting the economic status of the profession through its annual Faculty

Compensation Survey, producing reports such as its 2023 “Tenure and Contingency in US Higher Education,” developing interactive data tools on its website, and conducting other research on the academic workforce and issues of academic freedom, tenure, and governance.

Acknowledgments

The AAUP Department of Research would like to thank the college and university administrative offices that provided data in a timely manner for inclusion in this report. We are grateful for their continued collaboration and participation. We also acknowledge the contribution of the National Higher Education Benchmarking Institute (NHEBI) in developing and supporting the Faculty Compensation Survey research portal. NHEBI, established in 2004, is a nonprofit service and research institute, sponsored and supported by Johnson County Community College (Kansas). Finally, the author would like to acknowledge the substantial contribution of Ruben Guzman, our research assistant, in administering the Faculty Compensation Survey and shaping the report.

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This report was authored by Glenn T. Colby, senior researcher at the AAUP, and is published under the auspices of the AAUP's Committee on the Economic Status of the Profession.

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SURVEY REPORT TABLE 1

Average full-time faculty salary, by AAUP category, affiliation, and academic rank, 2022–23 (dollars)

Academic rank	All combined	Public	Private-independent	Religiously affiliated
AAUP CATEGORY I (Doctoral)				
Professor	169,821	154,734	218,005	177,354
Associate	110,945	106,224	132,203	114,389
Assistant	97,050	92,687	116,327	101,545
Instructor	70,005	64,887	83,798	81,856
Lecturer	76,107	70,820	93,724	69,641
No rank	71,474	71,060	71,392	82,509
All combined	120,246	111,502	153,259	126,045
AAUP CATEGORY IIA (Master's)				
Professor	109,866	108,313	120,132	106,895
Associate	89,061	89,173	93,417	85,396
Assistant	77,213	77,791	79,638	74,144
Instructor	61,034	58,048	66,217	64,640
Lecturer	65,275	63,907	77,208	60,071
No rank	60,619	59,300	69,580	59,786
All combined	87,479	86,619	94,227	85,046
AAUP CATEGORY IIB (Baccalaureate)				
Professor	113,270	104,295	131,010	93,315
Associate	86,949	86,022	97,117	74,899
Assistant	73,421	72,644	81,594	64,963
Instructor	62,619	62,263	68,363	55,969
Lecturer	67,302	64,012	77,401	47,065
No rank	84,597	122,585	75,952	73,288
All combined	87,612	82,030	100,295	75,044
AAUP CATEGORY III (Associate's with ranks)				
Professor	93,691	93,691	n.d.	n.d.
Associate	78,725	78,725	n.d.	n.d.
Assistant	66,002	66,002	n.d.	n.d.
Instructor	54,123	54,123	n.d.	n.d.
Lecturer	72,437	72,437	n.d.	n.d.
No rank	42,050	42,050	n.d.	n.d.
All combined	77,103	77,103	n.d.	n.d.
AAUP CATEGORY IV (Associate's without ranks)				
No rank	79,858	79,858	n.d.	n.d.
ALL AAUP CATEGORIES COMBINED EXCEPT IV				
Professor	149,629	140,426	188,375	131,600
Associate	101,941	100,126	115,557	93,337
Assistant	88,597	87,287	100,610	79,388
Instructor	66,343	62,538	76,925	69,735
Lecturer	72,995	68,781	90,251	63,913
No rank	68,990	68,480	72,438	68,742
All combined	108,043	103,190	132,225	97,397

Note: The table is based on 897 institutions reporting full-time faculty salary data. For definitions of categories, see Explanation of Statistical Data. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV.

SURVEY REPORT TABLE 2

Percentage change in salary for all full-time faculty and continuing faculty, by AAUP category, affiliation, and academic rank, 2021–22 to 2022–23

Academic rank	All faculty				Continuing faculty			
	All combined	Public	Private-independent	Religiously affiliated	All combined	Public	Private-independent	Religiously affiliated
AAUP CATEGORY I (Doctoral)								
Professor	3.9	4.3	3.7	4.3	4.2	4.0	4.9	3.9
Associate	4.1	4.3	4.3	3.3	5.3	5.1	5.9	4.0
Assistant	4.2	4.3	3.5	3.5	5.2	5.1	5.9	4.9
Instructor	5.8	7.9	2.9	3.9	6.1	6.5	6.1	3.6
All combined	3.9	4.2	3.6	4.1	4.8	4.7	5.3	4.0
AAUP CATEGORY IIA (Master's)								
Professor	3.2	4.0	2.6	1.2	4.7	5.4	3.2	3.4
Associate	3.6	4.1	3.3	2.2	4.8	5.4	3.7	4.1
Assistant	3.0	3.6	2.8	1.9	6.2	5.9	4.6	7.8
Instructor	4.2	5.3	2.7	2.5	5.0	5.5	3.3	5.0
All combined	3.5	4.3	2.6	1.7	5.1	5.7	3.8	4.0
AAUP CATEGORY IIB (Baccalaureate)								
Professor	3.4	2.7	3.7	3.1	3.7	3.4	4.4	2.9
Associate	3.5	4.8	4.0	2.0	4.1	3.9	4.4	3.9
Assistant	2.4	3.8	4.2	-1.0	5.1	5.1	5.2	4.9
Instructor	4.9	16.4	4.7	0.5	4.8	5.1	5.2	4.1
All combined	2.7	3.4	3.8	0.6	4.2	4.2	4.7	3.7
AAUP CATEGORY III (Associate's with ranks)								
Professor	2.6	2.6	n.d.	n.d.	3.0	3.0	2.0	n.d.
Associate	4.9	4.9	n.d.	n.d.	3.9	3.9	2.0	n.d.
Assistant	2.3	2.3	n.d.	n.d.	2.8	2.8	2.0	n.d.
Instructor	3.5	4.5	n.d.	n.d.	3.8	3.8	2.0	n.d.
All combined	4.0	4.0	n.d.	n.d.	3.1	3.1	2.0	n.d.
AAUP CATEGORY IV (Associate's without ranks)								
No rank	-0.6	-0.6	n.d.	n.d.	3.7	3.7	n.d.	n.d.
ALL AAUP CATEGORIES COMBINED EXCEPT IV								
Professor	4.0	4.3	3.8	4.2	4.3	4.3	4.6	3.5
Associate	4.3	4.6	4.4	2.9	4.9	5.1	5.1	4.0
Assistant	4.2	4.5	4.1	2.1	5.4	5.2	5.5	6.4
Instructor	5.5	7.7	3.2	2.9	5.6	6.0	5.3	4.2
All combined	4.1	4.5	3.8	2.7	4.8	4.9	4.9	4.0

Note: The table is based on 897 institutions reporting full-time faculty salary data and 827 institutions reporting full-time continuing faculty salary data. Figures for all faculty are calculated as a simple percentage increase from previously published 2021–22 salary figures and may be biased because some institutions did not participate in both years. Figures for continuing faculty represent a cohort analysis, where institutions reported the 2021–22 rank and salaries of continuing faculty along with their 2022–23 salaries. For definitions of categories, see Explanation of Statistical Data. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV. Rows labeled “All Combined” include lecturers and unranked faculty where reported.

SURVEY REPORT TABLE 3

Average salary for men and women full-time faculty, by affiliation, AAUP category, and academic rank, 2022–23 (dollars)

Academic rank	All combined		Public		Private-independent		Religiously affiliated	
	Men	Women	Men	Women	Men	Women	Men	Women
AAUP CATEGORY I (Doctoral)								
Professor	175,833	156,916	159,899	143,886	225,256	201,079	183,204	165,222
Associate	114,756	106,338	109,756	101,969	137,060	126,157	118,171	109,916
Assistant	102,360	92,165	97,535	88,236	122,709	110,131	108,831	95,642
Instructor	73,142	67,582	67,488	63,002	86,273	81,401	85,197	79,135
Lecturer	80,344	72,644	74,534	67,834	98,985	89,145	72,112	67,777
No rank	73,956	69,623	72,813	69,684	84,081	67,162	91,768	74,831
All combined	131,528	106,057	121,344	99,385	168,295	132,430	137,593	111,977
AAUP CATEGORY IIA (Master's)								
Professor	112,061	106,736	109,976	105,914	124,386	114,799	109,938	102,249
Associate	90,577	87,538	90,874	87,425	95,030	91,865	86,282	84,537
Assistant	79,009	75,863	79,528	76,367	81,586	78,344	75,793	73,064
Instructor	62,364	60,186	59,424	57,180	66,264	66,183	66,484	63,526
Lecturer	66,585	64,315	64,860	63,214	80,560	74,442	59,386	60,483
No rank	62,403	59,217	61,898	57,273	70,312	69,043	58,175	61,210
All combined	91,574	83,516	90,494	82,757	98,992	89,879	89,517	80,932
AAUP CATEGORY IIB (Baccalaureate)								
Professor	114,803	111,121	106,743	100,888	132,435	129,049	94,919	91,000
Associate	88,314	85,578	88,575	83,124	98,473	95,845	75,959	73,827
Assistant	74,249	72,783	74,168	71,395	82,416	80,956	65,130	64,840
Instructor	63,403	62,048	62,458	62,139	69,410	67,564	56,939	55,217
Lecturer	66,977	67,543	66,412	61,983	74,554	79,310	46,405	47,514
No rank	89,340	78,208	125,930	109,947	77,085	74,325	58,655	76,336
All combined	91,110	84,156	86,032	78,050	104,135	96,516	77,809	72,308
AAUP CATEGORY III (Associate's with ranks)								
Professor	95,424	92,266	95,424	92,266	n.d.	n.d.	n.d.	n.d.
Associate	79,182	78,362	79,182	78,362	n.d.	n.d.	n.d.	n.d.
Assistant	66,456	65,620	66,456	65,620	n.d.	n.d.	n.d.	n.d.
Instructor	53,722	54,417	53,722	54,417	n.d.	n.d.	n.d.	n.d.
Lecturer	74,498	70,727	74,498	70,727	n.d.	n.d.	n.d.	n.d.
No rank	n.d.	42,050	n.d.	42,050	n.d.	n.d.	n.d.	n.d.
All combined	78,049	76,339	78,049	76,339	n.d.	n.d.	n.d.	n.d.
AAUP CATEGORY IV (Associate's without ranks)								
No rank	80,733	79,062	80,733	79,062	n.d.	n.d.	n.d.	n.d.
ALL AAUP CATEGORIES COMBINED EXCEPT IV								
Professor	156,820	136,490	146,541	129,291	198,537	168,857	137,715	121,236
Associate	105,446	98,029	103,493	96,312	120,184	110,452	95,964	90,584
Assistant	92,993	84,839	91,332	83,699	106,569	95,568	82,819	76,945
Instructor	68,829	64,520	64,628	61,072	79,231	74,919	72,446	67,779
Lecturer	76,468	70,242	71,759	66,450	94,944	86,265	65,385	62,891
No rank	71,721	66,842	71,194	66,309	76,499	69,493	69,621	68,087
All combined	117,830	96,903	111,890	93,264	146,033	115,673	105,440	89,104

Note: The table is based on 897 institutions reporting full-time faculty salary data. For definitions of categories, see Explanation of Statistical Data. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV.

SURVEY REPORT TABLE 4

Average salary for full-time faculty, by region, AAUP category, and academic rank, 2022–23 (dollars)

Academic rank	Northeast		North Central		South			West	
	New England ^a	Middle Atlantic ^b	East North Central ^c	West North Central ^d	East South Central ^e	West South Central ^f	South Atlantic ^g	Mountain ^h	Pacific ⁱ
AAUP CATEGORY I (Doctoral)									
Professor	208,595	191,364	159,617	141,942	142,268	155,893	162,993	138,201	197,778
Associate	127,403	120,506	107,166	98,744	98,411	105,004	110,597	100,799	125,671
Assistant	110,600	102,691	96,409	89,265	85,098	96,504	95,700	86,270	109,304
Instructor	94,247	77,924	64,881	59,740	59,179	69,109	70,272	66,333	68,210
Lecturer	88,504	90,861	67,502	64,994	63,200	65,835	70,073	66,892	98,568
No rank	64,902	108,507	67,099	59,106	56,718	80,313	71,246	68,162	97,612
All combined	144,928	133,867	116,107	106,180	99,694	107,153	116,807	100,961	145,832
AAUP CATEGORY IIA (Master's)									
Professor	131,206	119,540	93,621	92,817	92,364	97,275	104,555	93,192	121,145
Associate	99,643	95,243	79,874	77,945	76,946	79,445	84,917	78,539	100,615
Assistant	84,603	79,221	71,674	67,658	69,311	70,129	75,790	69,428	88,207
Instructor	76,394	65,275	59,419	55,771	53,813	55,218	60,614	68,283	67,487
Lecturer	80,142	73,717	53,068	54,793	55,741	52,992	58,975	55,380	70,915
No rank	83,993	64,249	55,910	46,777	61,827	57,135	61,927	56,622	90,480
All combined	101,891	94,756	77,158	75,712	74,570	76,030	83,029	74,555	98,957
AAUP CATEGORY IIB (Baccalaureate)									
Professor	136,181	126,251	92,358	100,109	87,711	80,533	104,510	100,451	144,862
Associate	100,748	95,351	76,224	77,904	72,983	68,874	80,380	84,352	109,557
Assistant	85,416	81,514	66,091	65,585	58,979	59,291	69,928	70,641	89,321
Instructor	68,665	69,216	54,931	57,155	58,179	46,600	56,376	54,689	73,768
Lecturer	82,402	70,674	53,450	57,380	26,456	54,658	59,229	56,200	70,441
No rank	72,636	80,030	n.d.	74,440	40,800	93,034	114,699	66,169	61,200
All combined	104,266	95,177	75,770	78,277	70,801	67,306	80,750	81,219	112,391
AAUP CATEGORY III (Associate's with ranks)									
Professor	78,298	112,482	91,311	79,400	63,998	97,269	96,825	80,624	101,776
Associate	63,985	93,795	74,465	68,625	53,752	75,630	82,343	70,027	85,084
Assistant	55,797	78,957	59,438	62,802	46,490	61,680	72,312	62,477	75,601
Instructor	58,275	53,219	53,769	57,850	45,510	48,007	60,758	57,941	66,224
Lecturer	n.d.	80,524	56,853	n.d.	40,767	n.d.	n.d.	49,408	n.d.
No rank	n.d.	42,050	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
All combined	67,830	92,294	69,285	68,936	53,575	84,752	83,790	68,179	82,824
AAUP CATEGORY IV (Associate's without ranks)									
No rank	59,250	n.d.	82,429	63,823	61,075	58,564	82,811	76,100	104,210
ALL AAUP CATEGORIES COMBINED EXCEPT IV									
Professor	182,386	160,206	140,804	125,728	120,475	142,018	144,541	133,114	167,174
Associate	115,961	106,804	96,893	91,224	88,840	98,114	101,021	96,955	113,952
Assistant	99,522	90,977	85,862	80,153	77,990	88,989	87,844	82,983	98,608
Instructor	85,146	72,843	61,837	57,623	55,644	65,297	66,092	65,554	68,504
Lecturer	86,580	83,970	64,007	63,228	60,036	64,511	66,433	65,767	84,478
No rank	69,183	71,871	59,873	58,715	58,537	76,532	72,727	66,781	94,916
All combined	129,225	114,901	102,644	94,988	88,623	100,184	105,022	97,194	124,703

Note: The table is based on 897 institutions reporting full-time faculty salary data. For definitions of categories, see Explanation of Statistical Data. N.d. = no data.

^a New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

^b Middle Atlantic: New Jersey, New York, and Pennsylvania.

^c East North Central: Illinois, Indiana, Michigan, Ohio, and Wisconsin.

^d West North Central: Iowa, Kansas, Minnesota,

Missouri, Nebraska, North Dakota, and South Dakota.

^e East South Central: Alabama, Kentucky, Mississippi, and Tennessee.

^f West South Central: Arkansas, Louisiana, Oklahoma, and Texas.

^g South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina,

Puerto Rico, South Carolina, Virgin Islands, Virginia, and West Virginia.

^h Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

ⁱ Pacific: Alaska, California, Guam, Hawaii, Oregon, and Washington.

SURVEY REPORT TABLE 5

Percentile distribution of institutions, by average full-time faculty salary, AAUP category, and academic rank, 2022–23 (dollars)

Academic rank	Rating ^a and percentile									
	1*		1		2		3		4	
	95	90	80	70	60	50	40	30	20	10
AAUP CATEGORY I (Doctoral)										
Professor	235,471	205,828	182,139	166,277	156,150	146,155	138,425	127,308	115,426	105,403
Associate	151,570	137,728	125,565	116,698	111,075	106,282	101,988	95,439	90,114	84,288
Assistant	129,456	122,927	107,989	101,577	96,719	93,066	89,476	84,188	79,053	75,551
Instructor	104,544	92,407	81,248	76,818	72,731	68,236	64,903	60,698	56,367	52,797
All combined	177,959	157,372	130,736	122,469	114,175	107,204	101,390	95,376	89,930	82,897
AAUP CATEGORY IIA (Master's)										
Professor	140,576	132,414	119,873	112,579	104,933	98,858	92,560	88,248	82,800	76,202
Associate	111,661	107,038	99,001	91,025	86,135	81,868	77,613	74,798	70,758	66,037
Assistant	95,355	91,590	85,671	80,047	76,348	73,222	70,595	67,578	64,907	60,018
Instructor	86,535	79,208	69,830	65,603	62,313	60,224	57,136	55,000	52,823	46,593
All combined	114,883	105,112	96,518	90,943	83,755	80,114	76,434	73,204	69,882	65,020
AAUP CATEGORY IIB (Baccalaureate)										
Professor	156,236	144,187	119,894	105,937	99,249	93,044	88,238	81,744	76,190	66,934
Associate	117,446	109,598	95,432	86,116	81,107	77,056	72,266	68,313	65,432	59,473
Assistant	98,240	92,345	81,621	74,325	70,783	66,830	64,417	62,021	58,112	54,439
Instructor	81,676	75,043	68,081	62,845	59,024	57,237	54,932	52,185	49,655	44,462
All combined	120,374	109,183	94,891	83,834	79,388	76,136	72,185	68,446	64,326	58,165
AAUP CATEGORY III (Associate's with ranks)										
Professor	127,775	113,686	104,336	100,319	94,437	88,291	82,881	76,431	65,080	63,849
Associate	102,801	90,596	86,258	82,093	78,592	75,267	68,636	64,700	56,665	52,427
Assistant	90,679	84,205	75,324	69,961	64,622	63,209	59,302	56,961	48,089	45,999
Instructor	70,321	66,523	63,861	60,613	56,788	53,030	51,056	46,102	44,811	41,550
All combined	101,608	94,811	85,209	81,155	76,129	70,811	67,868	64,832	56,493	53,127
AAUP CATEGORY IV (Associate's without ranks)										
No rank	103,404	103,189	102,460	87,527	80,153	63,862	63,507	61,075	59,250	56,506

Note: The table is based on 897 institutions reporting full-time faculty salary data. For definitions of categories, see Explanation of Statistical Data. Calculated using SAS STDIZE procedure using the order statistics method.

^a. Interpretation of the ratings: 1* = 95th percentile; 1 = 80th; 2 = 60th; 3 = 40th; 4 = 20th. An average lower than the 20th percentile is rated 5 (not displayed).

SURVEY REPORT TABLE 6

Percentage of full-time faculty in tenure-track appointments and percentage of faculty with tenure, by affiliation, gender, and academic rank, 2022–23

Academic rank	All combined				Public				Private-independent				Religiously affiliated			
	% T	% TT	% NTT	N	% T	% TT	% NTT	N	% T	% TT	% NTT	N	% T	% TT	% NTT	N
MEN																
Professor	93.4	1.1	5.5	76,219	94.3	1.1	4.6	51,792	90.8	0.9	8.2	16,423	92.7	1.4	5.8	8,004
Associate	84.5	5.8	9.8	51,780	86.2	4.9	8.9	36,148	78.7	7.5	13.8	9,033	82.8	8.0	9.1	6,599
Assistant	2.9	74.1	22.9	39,743	2.9	75.1	22.0	28,063	1.0	76.3	22.6	6,966	5.5	65.3	29.2	4,714
Instructor	0.8	3.0	96.2	11,778	1.1	3.9	95.0	7,548	0.3	1.1	98.6	2,354	0.2	1.7	98.1	1,876
Lecturer	2.6	2.1	95.3	16,927	3.5	2.7	93.8	12,735	0.0	0.1	99.9	3,601	0.0	0.5	99.5	591
No rank	19.5	6.5	73.9	2,923	21.6	7.1	71.3	2,641	0.5	0.0	99.5	182	0.0	4.0	96.0	100
All combined	58.8	17.1	24.1	199,370	59.0	17.4	23.6	138,927	57.3	16.0	26.7	38,559	60.1	17.2	22.7	21,884
WOMEN																
Professor	89.2	1.2	9.6	41,724	89.9	1.2	8.8	28,450	86.4	0.7	12.9	8,551	90.1	1.9	8.0	4,723
Associate	78.9	5.9	15.2	46,415	80.2	5.0	14.8	31,931	74.2	7.1	18.7	8,187	78.1	8.9	13.0	6,297
Assistant	2.6	66.8	30.6	46,484	2.8	67.3	29.9	31,632	1.1	70.1	28.7	8,233	3.3	60.6	36.0	6,619
Instructor	0.7	3.2	96.1	16,052	0.8	4.0	95.2	10,746	0.3	1.3	98.4	2,705	0.5	2.0	97.5	2,601
Lecturer	2.8	1.7	95.5	21,356	3.6	2.2	94.2	16,265	0.1	0.1	99.8	4,240	0.1	0.1	99.8	851
No rank	14.7	5.4	80.0	3,450	16.4	5.8	77.7	3,065	0.8	0.0	99.2	251	0.0	4.5	95.5	134
All combined	43.5	20.2	36.4	175,481	43.6	19.8	36.5	122,089	42.2	20.1	37.7	32,167	44.3	22.3	33.4	21,225
MEN AND WOMEN COMBINED																
Professor	91.9	1.1	6.9	117,943	92.8	1.1	6.1	80,242	89.3	0.9	9.8	24,974	91.7	1.6	6.6	12,727
Associate	81.8	5.8	12.3	98,195	83.4	5.0	11.6	68,079	76.6	7.3	16.2	17,220	80.5	8.5	11.0	12,896
Assistant	2.7	70.2	27.0	86,227	2.9	71.0	26.2	59,695	1.1	73.0	25.9	15,199	4.2	62.6	33.2	11,333
Instructor	0.7	3.1	96.2	27,830	0.9	4.0	95.1	18,294	0.3	1.2	98.5	5,059	0.4	1.9	97.7	4,477
Lecturer	2.7	1.8	95.4	38,283	3.6	2.4	94.0	29,000	0.1	0.1	99.8	7,841	0.1	0.3	99.7	1,442
No rank	16.9	5.9	77.2	6,373	18.8	6.4	74.8	5,706	0.7	0.0	99.3	433	0.0	4.3	95.7	234
All combined	51.6	18.6	29.8	374,851	51.8	18.6	29.6	261,016	50.4	17.9	31.7	70,726	52.3	19.7	28.0	43,109

Note: The table is based on 897 institutions reporting full-time faculty salary data. Prior to 2003–04, this table counted as tenure track all faculty who were tenured and in positions leading to consideration for tenure, and did not separately report faculty not on the tenure track. T = tenured, TT = tenure-track, NTT = non-tenure-track. N.d. = no data.

SURVEY REPORT TABLE 7

Percentage of full-time faculty, by affiliation, gender, AAUP category, and rank, 2022–23

Academic rank	All combined				Public				Private-independent				Religiously affiliated			
	Men	Women	N	% of total	Men	Women	N	% of total	Men	Women	N	% of total	Men	Women	N	% of total
AAUP CATEGORY I (Doctoral)																
Professor	68.2	31.8	78,752	33.2	67.7	32.3	56,775	32.0	70.0	30.0	16,998	38.3	67.5	32.5	4,979	32.8
Associate	54.7	45.3	60,124	25.4	54.6	45.4	46,111	26.0	55.4	44.6	9,512	21.5	54.2	45.8	4,501	29.6
Assistant	47.9	52.1	52,385	22.1	47.9	52.1	40,839	23.0	49.3	50.7	8,543	19.3	44.8	55.2	3,003	19.8
Instructor	43.6	56.4	16,875	7.1	42.0	58.0	12,122	6.8	49.2	50.8	2,937	6.6	44.9	55.1	1,816	12.0
Lecturer	45.0	55.0	26,617	11.2	44.6	55.4	19,617	11.1	46.5	53.5	6,186	14.0	43.0	57.0	814	5.4
No rank	42.7	57.3	2,196	0.9	44.0	56.0	1,969	1.1	25.0	75.0	152	0.3	45.3	54.7	75	0.5
All combined	55.7	44.3	236,949	100.0	55.2	44.8	177,433	100.0	58.1	41.9	44,328	100.0	54.9	45.1	15,188	100.0
AAUP CATEGORY IIA (Master's)																
Professor	58.8	41.2	27,630	28.8	59.1	40.9	18,323	29.4	55.6	44.4	4,239	28.7	60.4	39.6	5,068	26.8
Associate	50.1	49.9	26,926	28.1	50.7	49.3	16,829	27.0	49.0	51.0	4,378	29.7	49.2	50.8	5,719	30.3
Assistant	42.9	57.1	24,256	25.3	45.1	54.9	14,480	23.2	39.9	60.1	3,935	26.7	39.6	60.4	5,841	30.9
Instructor	38.9	61.1	6,291	6.6	38.7	61.3	3,666	5.9	42.3	57.7	939	6.4	37.7	62.3	1,686	8.9
Lecturer	42.3	57.7	9,783	10.2	42.1	57.9	8,191	13.1	45.2	54.8	1,137	7.7	37.6	62.4	455	2.4
No rank	44.0	56.0	1,061	1.1	43.8	56.2	801	1.3	42.3	57.7	130	0.9	46.9	53.1	130	0.7
All combined	49.2	50.8	95,947	100.0	49.9	50.1	62,290	100.0	47.7	52.3	14,758	100.0	47.9	52.1	18,899	100.0
AAUP CATEGORY IIB (Baccalaureate)																
Professor	58.4	41.6	7,845	29.3	58.2	41.8	1,428	23.3	57.9	42.1	3,737	32.1	59.1	40.9	2,680	29.7
Associate	50.1	49.9	7,744	28.9	53.2	46.8	1,738	28.3	48.4	51.6	3,330	28.6	50.3	49.7	2,676	29.7
Assistant	43.5	56.5	6,735	25.1	45.0	55.0	1,525	24.9	43.7	56.3	2,721	23.4	42.5	57.5	2,489	27.6
Instructor	42.2	57.8	3,031	11.3	39.1	60.9	873	14.2	43.3	56.7	1,183	10.2	43.7	56.3	975	10.8
Lecturer	42.6	57.4	1,217	4.5	45.8	54.2	526	8.6	40.2	59.8	518	4.5	40.5	59.5	173	1.9
No rank	57.4	42.6	223	0.8	79.1	20.9	43	0.7	58.9	41.1	151	1.3	17.2	82.8	29	0.3
All combined	49.7	50.3	26,795	100.0	49.9	50.1	6,133	100.0	49.6	50.4	11,640	100.0	49.7	50.3	9,022	100.0
AAUP CATEGORY III (Associate's with ranks)																
Professor	45.1	54.9	3,687	30.8	45.1	54.9	3,687	30.8	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Associate	44.2	55.8	3,381	28.2	44.2	55.8	3,381	28.2	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Assistant	45.7	54.3	2,851	23.8	45.7	54.3	2,851	23.8	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Instructor	42.3	57.7	1,400	11.7	42.3	57.7	1,400	11.7	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Lecturer	45.3	54.7	666	5.6	45.3	54.7	666	5.6	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
No rank	n.d.	100.0	2	0.0	n.d.	100	2	0.0	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
All combined	44.7	55.3	11,987	100.0	44.7	55.3	11,987	100.0	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
AAUP CATEGORY IV (Associate's without ranks)																
No rank	47.7	52.3	3,173	100.0	47.7	52.3	3,173	100.0	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
AAUP ALL CATEGORIES COMBINED EXCEPT IV																
Professor	64.6	35.4	117,943	31.5	64.5	35.5	80,242	30.7	65.8	34.2	24,974	35.3	62.9	37.1	12,727	29.5
Associate	52.7	47.3	98,195	26.2	53.1	46.9	68,079	26.1	52.5	47.5	17,220	24.3	51.2	48.8	12,896	29.9
Assistant	46.1	53.9	86,227	23.0	47.0	53.0	59,695	22.9	45.8	54.2	15,199	21.5	41.6	58.4	11,333	26.3
Instructor	42.3	57.7	27,830	7.4	41.3	58.7	18,294	7.0	46.5	53.5	5,059	7.2	41.9	58.1	4,477	10.4
Lecturer	44.2	55.8	38,283	10.2	43.9	56.1	29,000	11.1	45.9	54.1	7,841	11.1	41.0	59.0	1,442	3.3
No rank	45.9	54.1	6,373	1.7	46.3	53.7	5,706	2.2	42.0	58.0	433	0.6	42.7	57.3	234	0.5
All combined	53.2	46.8	374,851	100.0	53.2	46.8	261,016	100.0	54.5	45.5	70,726	100.0	50.8	49.2	43,109	100.0

Note: The table is based on 897 institutions reporting full-time faculty salary data. For definitions of categories, see Explanation of Statistical Data. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV.

SURVEY REPORT TABLE 8

Full-time faculty retirement benefits, by affiliation and AAUP category, 2022–23 (dollars)

AAUP category	Retirement benefits					
	All combined			Public		
	Percentage covered	Average contribution (\$)	Percentage of salary	Percentage covered	Average contribution (\$)	Percentage of salary
Category I (Doctoral)	97.3	14,309	11.9	97.5	14,573	13.0
Category IIA (Master's)	96.1	9,718	11.1	97.5	11,199	12.9
Category IIB (Baccalaureate)	94.2	9,186	10.4	98.5	11,911	14.5
Category III (Associate's with ranks)	97.1	11,682	14.5	97.1	11,682	14.5
Category IV (Associate's without ranks)	95.5	12,087	15.1	95.5	12,087	15.1
All combined	96.5	12,706	11.7	97.0	13,560	13.1

AAUP category	Retirement benefits					
	Private-independent			Religiously affiliated		
	Percentage covered	Average contribution (\$)	Percentage of salary	Percentage covered	Average contribution (\$)	Percentage of salary
Category I (Doctoral)	97.5	14,143	9.2	95.4	11,655	9.2
Category IIA (Master's)	96.2	7,720	8.2	91.2	6,066	7.2
Category IIB (Baccalaureate)	93.4	9,954	9.9	92.3	6,170	8.2
Category III (Associate's with ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
All combined	96.5	12,162	9.2	93.0	8,152	8.3

Note: The table is based on 851 reporting institutions. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV. Figures represent institutions that provided retirement benefits data. Average contribution and percentage of salary figures apply to faculty who were covered. The "total compensation" statistic was eliminated in 2019–20 to reduce the number of benefit items to three: retirement, medical, and dependent tuition. Retirement benefits include the contribution by the institution, state, and local government to the retirement plans but exclude payments for unfunded retirement liability, prepaid retiree health insurance, and social security.

SURVEY REPORT TABLE 9

Full-time faculty medical benefits, by affiliation and AAUP category, 2022–23 (dollars)

AAUP category	Medical Benefits					
	All combined			Public		
	Percentage covered	Average contribution (\$)	Percentage of salary	Percentage covered	Average contribution (\$)	Percentage of salary
Category I (Doctoral)	94.6	13,197	10.9	94.7	12,400	11.1
Category IIA (Master's)	92.9	12,365	14.1	96.1	12,664	14.5
Category IIB (Baccalaureate)	92.1	11,564	13.1	93.3	12,030	14.6
Category III (Associate's with ranks)	94.5	13,292	16.4	94.5	13,292	16.4
Category IV (Associate's without ranks)	95.9	12,115	15.1	95.9	12,115	15.1
All combined	94.0	12,867	11.8	95.0	12,486	12.0

AAUP category	Medical Benefits					
	Private-independent			Religiously affiliated		
	Percentage covered	Average contribution (\$)	Percentage of salary	Percentage covered	Average contribution (\$)	Percentage of salary
Category I (Doctoral)	95.6	15,582	10.2	91.0	15,609	12.2
Category IIA (Master's)	88.9	12,013	12.8	85.2	11,524	13.6
Category IIB (Baccalaureate)	94.4	12,256	12.2	88.3	10,265	13.6
Category III (Associate's with ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
All combined	94.1	14,335	10.8	87.9	12,774	12.9

Note: The table is based on 852 reporting institutions. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV. Figures represent institutions that provided medical benefits data. Average coverage and percentage of salary figures apply to faculty who were covered. The "total compensation" statistic was eliminated in 2019–20 to reduce the number of benefit items to three: retirement, medical, and dependent tuition. Medical benefits include institutional contributions to premiums for insurance plans combining medical, dental, and other health care but exclude long-term disability, Medicare, and life insurance.

SURVEY REPORT TABLE 10

Institutions providing a dependent tuition benefit to full-time faculty, by AAUP category and affiliation, 2022–23

Dependent tuition waiver	Dependent tuition benefit							
	All combined		Public		Private-independent		Religiously affiliated	
	N	Percent	N	Percent	N	Percent	N	Percent
AAUP CATEGORY I (Doctoral)	152		94		40		18	
Full (institution)	57	37.5	23	24.5	22	55.0	12	66.7
Partial (institution)	74	48.7	58	61.7	12	30.0	4	22.2
Full (specified institutions)	17	11.2	4	4.3	10	25.0	3	16.7
Partial (specified institutions)	42	27.6	27	28.7	10	25.0	5	27.8
Tuition Exchange	43	28.3	14	14.9	16	40.0	13	72.2
Other	40	26.3	17	18.1	15	37.5	8	44.4
Varies by years of service	37	24.3	11	11.7	17	42.5	9	50.0
None	10	6.6	9	9.6	0	0.0	1	5.6
AAUP CATEGORY IIA (Master's)	252		81		66		105	
Full (institution)	173	68.7	23	28.4	59	89.4	91	86.7
Partial (institution)	53	21.0	35	43.2	6	9.1	12	11.4
Full (specified institutions)	85	33.7	4	4.9	26	39.4	55	52.4
Partial (specified institutions)	40	15.9	13	16.0	11	16.7	16	15.2
Tuition Exchange	160	63.5	7	8.6	58	87.9	95	90.5
Other	59	23.4	24	29.6	14	21.2	21	20.0
Varies by years of service	76	30.2	9	11.1	24	36.4	43	41.0
None	18	7.1	18	22.2	0	0.0	0	0.0
AAUP CATEGORY IIB (Baccalaureate)	170		24		65		81	
Full (institution)	118	69.4	5	20.8	45	69.2	68	84.0
Partial (institution)	37	21.8	13	54.2	15	23.1	9	11.1
Full (specified institutions)	68	40.0	3	12.5	16	24.6	49	60.5
Partial (specified institutions)	37	21.8	9	37.5	18	27.7	10	12.3
Tuition Exchange	124	72.9	5	20.8	44	67.7	75	92.6
Other	47	27.6	4	16.7	25	38.5	18	22.2
Varies by years of service	59	34.7	1	4.2	26	40.0	32	39.5
None	5	2.9	5	20.8	0	0.0	0	0.0
AAUP CATEGORY III/IV (Associate's)	59		59		0		0	
Full (institution)	31	52.5	31	52.5	n.d.	n.d.	n.d.	n.d.
Partial (institution)	18	30.5	18	30.5	n.d.	n.d.	n.d.	n.d.
Full (specified institutions)	6	10.2	6	10.2	n.d.	n.d.	n.d.	n.d.
Partial (specified institutions)	3	5.1	3	5.1	n.d.	n.d.	n.d.	n.d.
Tuition Exchange	3	5.1	3	5.1	n.d.	n.d.	n.d.	n.d.
Other	5	8.5	5	8.5	n.d.	n.d.	n.d.	n.d.
Varies by years of service	1	1.7	1	1.7	n.d.	n.d.	n.d.	n.d.
None	8	13.6	8	13.6	n.d.	n.d.	n.d.	n.d.
ALL AAUP CATEGORIES COMBINED	633		258		171		204	
Full (institution)	379	59.9	82	31.8	126	73.7	171	83.8
Partial (institution)	182	28.8	124	48.1	33	19.3	25	12.3
Full (specified institutions)	176	27.8	17	6.6	52	30.4	107	52.5
Partial (specified institutions)	122	19.3	52	20.2	39	22.8	31	15.2
Tuition Exchange	330	52.1	29	11.2	118	69.0	183	89.7
Other	151	23.9	50	19.4	54	31.6	47	23.0
Varies by years of service	173	27.3	22	8.5	67	39.2	84	41.2
None	41	6.5	40	15.5	0	0.0	1	0.5

Note: N.d. = no data. The “total compensation” statistic was eliminated in 2019–20 to reduce the number of benefit items to three: retirement, medical, and dependent tuition. Dependent tuition benefits are collected as a series of multiple-choice items only. The items and their choices are: Tuition waiver at this institution (Full, Partial, or None); Tuition waiver at specified institutions through a consortium or system (Full, Partial, or None); Institution is a member of Tuition Exchange (Yes or No); Tuition benefit varies based on years of service (Yes, No, or Not applicable); and Other dependent tuition benefits (with an open-text response field); and None. Institutions may indicate multiple dependent tuition benefits; therefore, percentages within each AAUP category may not add up to 100.

SURVEY REPORT TABLE 11

Presidential salary, by AAUP category and affiliation, 2022–23 (dollars)

AAUP category	Presidential salary							
	All combined				Public			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	648,195	559,000	312,643	1,900,000	592,119	520,343	312,643	1,443,570
Category IIA (Master's)	376,397	346,973	75,000	950,000	332,014	327,036	165,182	681,345
Category IIB (Baccalaureate)	365,770	340,000	84,862	1,100,000	263,865	259,416	84,862	465,145
Category III (Associate's with ranks)	307,276	261,414	178,400	498,780	307,276	261,414	178,400	498,780
Category IV (Associate's without ranks)	263,453	260,562	152,949	400,000	263,453	260,562	152,949	400,000

AAUP category	Private-independent				Religiously affiliated			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	962,468	800,000	437,750	1,900,000	757,246	825,000	355,232	1,014,000
Category IIA (Master's)	499,128	510,000	226,718	950,000	363,237	355,419	75,000	780,000
Category IIB (Baccalaureate)	467,345	450,000	121,000	1,100,000	334,431	334,560	124,464	650,000
Category III (Associate's with ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

Note: The table is based on 561 reporting institutions. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV. For two institutions where supplemental pay far exceeded a president's base salary, the salary figure used here includes supplemental pay.

SURVEY REPORT TABLE 12

Comparison of average salaries of presidents and faculty, by AAUP category and affiliation, 2022–23

AAUP category	Ratio of presidential salary to average full professor salary							
	All combined				Public			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	4.65	4.44	1.88	10.70	4.38	4.29	1.88	7.51
Category IIA (Master's)	3.92	3.79	1.39	10.63	3.39	3.38	1.40	7.10
Category IIB (Baccalaureate)	3.90	3.94	1.05	7.06	2.93	2.84	1.05	4.78
Category III (Associate's with ranks)	3.44	3.21	2.14	5.78	3.44	3.21	2.14	5.78
Category IV (Associate's without ranks)	3.64	3.54	2.34	7.28	3.64	3.54	2.34	7.28

AAUP category	Private-independent				Religiously affiliated			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	6.01	5.09	3.52	10.70	5.65	5.28	4.11	7.81
Category IIA (Master's)	4.77	4.54	2.91	10.63	4.11	3.98	1.39	7.91
Category IIB (Baccalaureate)	4.25	4.22	1.46	7.06	4.06	4.01	2.27	6.94
Category III (Associate's with ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

Note: The table is based on 561 reporting institutions. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV. For two institutions where supplemental pay far exceeded a president's base salary, the salary figure used here includes supplemental pay.

SURVEY REPORT TABLE 13

Chief academic officer salary, by AAUP category and affiliation, 2022–23 (dollars)

Chief academic officer salary								
AAUP category	All combined				Public			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	411,377	380,000	145,000	867,000	398,947	370,000	145,000	831,000
Category IIA (Master's)	230,933	223,967	75,000	530,000	236,585	231,562	145,000	404,321
Category IIB (Baccalaureate)	195,327	187,100	71,400	420,000	165,967	155,007	100,104	345,937
Category III (Associate's with ranks)	203,561	177,102	94,500	378,750	203,561	177,102	94,500	378,750
Category IV (Associate's without ranks)	159,901	165,018	91,437	218,838	159,901	165,018	91,437	218,838

AAUP category	Private-independent				Religiously affiliated			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	472,042	435,000	238,000	867,000	451,242	475,000	193,865	640,625
Category IIA (Master's)	265,823	262,071	80,594	500,000	206,593	200,000	75,000	530,000
Category IIB (Baccalaureate)	228,132	204,867	109,225	420,000	181,171	175,000	71,400	300,000
Category III (Associate's with ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

Note: The table is based on 532 reporting institutions. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV.

SURVEY REPORT TABLE 14

Chief financial officer salary, by AAUP category and affiliation, 2022–23 (dollars)

Chief financial officer salary								
AAUP category	All combined				Public			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	369,319	347,884	168,151	821,200	354,775	331,500	188,992	800,000
Category IIA (Master's)	222,027	206,225	75,000	640,000	208,448	204,000	123,110	351,002
Category IIB (Baccalaureate)	211,847	187,272	85,000	600,000	152,668	151,011	95,000	265,241
Category III (Associate's with ranks)	189,773	148,439	62,746	365,000	189,773	148,439	62,746	365,000
Category IV (Associate's without ranks)	155,266	162,287	92,862	218,838	155,266	162,287	92,862	218,838

AAUP category	Private-independent				Religiously affiliated			
	Average	Median	Minimum	Maximum	Average	Median	Minimum	Maximum
Category I (Doctoral)	441,731	410,958	218,112	821,200	384,968	474,760	168,151	500,000
Category IIA (Master's)	284,996	265,000	133,200	580,250	203,910	192,474	75,000	640,000
Category IIB (Baccalaureate)	259,861	236,000	99,008	600,000	195,114	180,000	85,000	450,000
Category III (Associate's with ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

Note: The table is based on 516 reporting institutions. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV.

SURVEY REPORT TABLE 15

Average amount paid to part-time faculty members for a standard course section, by AAUP category and affiliation, 2021–22 (dollars)

AAUP category	Part-time faculty pay per section					
	All combined			Public		
	Average	Minimum	Maximum	Average	Minimum	Maximum
Category I (Doctoral)	4,969	632	29,513	4,478	632	29,513
Category IIA (Master's)	3,498	1,000	23,000	3,470	1,000	10,650
Category IIB (Baccalaureate)	4,073	575	19,743	4,120	1,500	8,332
Category III (Associate's with ranks)	3,169	750	9,309	3,169	750	9,309
Category IV (Associate's without ranks)	2,839	1,332	23,778	2,839	1,332	23,778
All combined	3,874	575	29,513	3,683	632	29,513

AAUP category	Private-independent			Religiously affiliated		
	Average	Minimum	Maximum	Average	Minimum	Maximum
Category I (Doctoral)	5,376	2,500	13,905	6,056	1,050	24,000
Category IIA (Master's)	3,749	1,000	15,613	3,319	1,000	23,000
Category IIB (Baccalaureate)	5,455	1,000	19,743	3,183	575	10,500
Category III (Associate's with ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Category IV (Associate's without ranks)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
All combined	4,291	1,000	19,743	3,937	575	24,000

Note: This table is based on 352 reporting institutions. Pay is for the 2021–22 academic year to enable institutions to report data for an entire academic year. The standard course section is three credit hours, with some exceptions; see notes to Appendix III. Minimum pay reported as less than \$500 per section or more than \$50,000 is excluded from the table and analysis but is listed in Appendix III. For definitions of categories, see Explanation of Statistical Data. N.d. = no data. There were no private-independent or religiously affiliated institutions in categories III or IV.

SURVEY REPORT TABLE 16

Institutional contribution to part-time faculty retirement and medical benefits, by AAUP category, 2021–22

AAUP category	Percentage of institutions contributing to benefits for part-time faculty							
	Retirement				Medical			
	N	All	Some	None	N	All	Some	None
Category I (Doctoral)	57	12.3	26.3	61.4	56	3.6	50.0	46.4
Category IIA (Master's)	185	3.8	22.7	73.5	185	1.1	24.3	74.6
Category IIB (Baccalaureate)	120	0.0	32.5	67.5	119	0.0	26.9	73.1
Category III/IV (Associate's)	61	26.2	29.5	44.3	54	1.9	37.0	61.1
All combined	423	7.1	27.0	66.0	414	1.2	30.2	68.6

Note: Benefits are for the 2021–22 academic year to enable institutions to report data for an entire academic year. The proportion of part-time faculty receiving benefits was reported as All, Some, or None for each institution.

SURVEY REPORT TABLE 17

Number of institutions included in full-time faculty salary tabulations, by AAUP category and affiliation, 2022–23

AAUP category	All combined	Public	Private-independent	Religiously affiliated
Category I (Doctoral)	231	157	49	25
Category IIA (Master's)	356	165	74	117
Category IIB (Baccalaureate)	207	46	74	87
Category III (Associate's with ranks)	82	82	0	0
Category IV (Associate's without ranks)	21	21	0	0
All combined	897	471	197	229

Note: For definitions of categories, see Explanation of Statistical Data.

SURVEY REPORT TABLE 18

Number of faculty members included in full-time faculty salary tabulations, by AAUP category and affiliation, 2022–23

AAUP category	All combined	Public	Private-independent	Religiously affiliated
Category I (Doctoral)	236,949	177,433	44,328	15,188
Category IIA (Master's)	95,947	62,290	14,758	18,899
Category IIB (Baccalaureate)	26,795	6,133	11,640	9,022
Category III (Associate's with ranks)	11,987	11,987	0	0
Category IV (Associate's without ranks)	3,173	3,173	0	0
All combined	374,851	261,016	70,726	43,109

Note: For definitions of categories, see Explanation of Statistical Data.

Explanation of Statistical Data

FULL-TIME FACULTY. The full-time faculty members reported in the survey are those who meet the US Department of Education’s eligibility criteria for full-time instructional staff in the Integrated Postsecondary Education Data System (IPEDS) Human Resources survey component.

Institutions are asked to include (a) full-time faculty members who are on the payroll of the institution as of November 1, 2022, and working nine-, ten-, eleven-, or twelve-month contracts; (b) full-time “Primarily Instructional” and “Instructional/Research Public Service” faculty members whose regular assignment has an instruction component (including release time for research), regardless of whether they are formally designated as “faculty” and irrespective of tenure status; (c) faculty members who are working on a reduced load (for example, 0.75 FTE) but who are still considered full-time in the institution’s human resources or payroll system; (d) full-time faculty members who are on sabbatical or leave with pay; and (e) replacement faculty members for those on sabbatical or leave without pay, but only if the replacement faculty members are employed full-time.

Institutions are asked to exclude (a) faculty members who are working on contracts of less than nine months; (b) clinical or basic science faculty, medical faculty, and/or military faculty paid on a different scale from civilian employees; (c) extreme outliers, meaning faculty members whose base salary falls well outside the norm for a particular rank; (d) faculty members on sabbatical or leave without pay; (e) replacement faculty members for those on sabbatical or leave with pay; (f) research faculty members and other faculty members who do not have a contractual instructional role, such as research assistant or associate, research professor, postdoctoral research fellow, or research fellow; (g) faculty members on courtesy appointments and other faculty members whose services are valued by book-keeping entries rather than by full cash transactions, unless their salaries are determined by the same principles as those who do not donate their services; and (h) contributed service personnel, or administrative officers with titles such as provost, dean, associate or assistant dean, librarian, counselor, registrar, or coach, even though they may devote part of their time to classroom instruction and may have faculty status.

The academic ranks assigned to full-time faculty members are those determined by the reporting institution. Not all institutions use all ranks, and the definitions vary by institution. Institutions have been instructed to report “visiting” faculty members and those with instructional postdoctoral appointments at the rank of instructor. Institutions have been instructed to report “teaching” faculty members (for example, “Associate Teaching Professor”) at the same rank used in their titles, regardless of their tenure status.

“No rank” full-time faculty members meet the other criteria for inclusion, regardless of whether they are formally designated as “faculty.” They may have titles such as “artist in residence” or “scholar in residence.” Institutions that do not assign faculty rank are instructed to report all full-time faculty members as “no rank.” (See also the definition of institutional category IV below.)

PART-TIME FACULTY. The part-time faculty members reported in the survey are those faculty members who were paid per section of course taught and defined by their institutions as employed less than full time. As with full-time faculty members, part-time faculty members are those included in the US

Department of Education categories of “Primarily Instructional” and “Instructional/Research/Public Service,” regardless of whether they are formally designated as “faculty.” Clinical or basic science faculty in schools of medicine or military faculty are excluded. Individuals employed to meet short-term needs (for example, to cover a few weeks of a course) and students in the Federal Work-Study Program are excluded, even if their work has an instructional component.

The course sections for which part-time faculty pay is reported are those meeting the definition of an undergraduate class section in the Common Data Set for 2022–23 (<http://www.commondataset.org/>), item I–3: “an organized course offered for credit, identified by discipline and number, meeting at a stated time or times in a classroom or similar setting, and not a subsection such as a laboratory or discussion session. Undergraduate class sections are defined as any sections in which at least one degree-seeking undergraduate student is enrolled for credit. Exclude distance learning classes and non-credit classes and individual instruction such as dissertation or thesis research, music instruction, or one-to-one readings. Exclude students in independent study, co-operative programs, internships, foreign language taped tutor sessions, practicums, and all students in one-on-one classes.” (Also see the notes for survey report table 15 and appendix III.)

SALARY. This figure represents the contracted academic-year salary for full-time faculty members excluding summer teaching, stipends, extra load, or other forms of remuneration. Department heads with faculty rank and no other administrative title are reported at their instructional salary (that is, excluding administrative stipends). Where faculty members are given duties for eleven or twelve months, salary is converted to a standard academic-year basis as determined by the institution. The factor used to convert salaries is reflected in the notes to appendices I and II.

CHANGE IN SALARY FOR CONTINUING FACULTY. The change in salary reported is for those 2021–22 full-time faculty members who remained employed as full-time faculty at the same institution for 2022–23. The change includes both promotions in rank and increases (or decreases) due to other factors.

BENEFITS. These figures represent contributions by the institution, state, and local government on behalf of individual faculty members and do not include employee contributions. The benefits reported in the survey include (a) retirement plan contributions, regardless of vesting provisions, excluding payments for unfunded retirement liability, prepaid retiree health insurance, and social security; (b) medical insurance contributions, including premiums for insurance plans combining medical, dental, and other health care, but excluding long-term disability, Medicare, life insurance, and Health Savings Accounts; and (c) tuition benefits available to faculty dependents. As with salary figures, retirement figures are converted to a standard academic-year basis as determined by the institution. Medical insurance contributions are not converted to an academic-year basis. Dependent tuition benefits were collected for full-time faculty as a series of multiple-choice items only (see survey report table 10). For part-time faculty, retirement and medical benefits were collected as categorical variables only (see survey report table 16). Not all institutions reported all items. Institutions were asked to provide their best estimate of the data for the entire academic year.

INSTITUTIONAL CATEGORIES. AAUP institutional categories are assigned to institutions by the AAUP Research Office based on the following institutional characteristics:

Category I (Doctoral). Institutions characterized by a significant level and breadth of activity in doctoral-level education as measured by the number of doctorate recipients and the diversity in doctoral-level program offerings. Institutions in this category grant a minimum of thirty doctoral-level degrees annually, from at least three distinct programs. Awards previously categorized as first-professional degrees, such as the JD, MD, and DD, do not count as doctorates for this classification. Awards in the category of “doctor’s degree–professional practice” are reviewed on a case-by-case basis.

Category IIA (Master’s). Institutions characterized by diverse postbaccalaureate programs (including first professional) but not engaged in significant doctoral-level education. Institutions in this category grant a minimum of fifty postbaccalaureate degrees annually, from at least three distinct programs. Awards of postbaccalaureate certificates are reviewed on a case-by-case basis.

Category IIB (Baccalaureate). Institutions characterized by their primary emphasis on undergraduate baccalaureate-level education. Institutions in this category grant a minimum of fifty bachelor’s degrees annually, from at least three distinct programs, and bachelor’s and higher degrees make up at least 50 percent of total degrees awarded.

Category III (Associate’s with Ranks). Institutions characterized by a significant emphasis on undergraduate associate’s degree education. Institutions in this category grant a minimum of fifty associate’s degrees annually. Associate’s degrees make up at least 50 percent, and bachelor’s and higher degrees make up less than 50 percent, of total degrees and certificates awarded. Faculty members are distinguished on the basis of standard academic ranks (professor, associate professor, and so forth). Associate’s institutions without standard academic ranks should be included in category IV.

Category IV (Associate’s without Ranks). Institutions characterized by the criteria for category III but without standard academic ranks. An institution that refers to all faculty members as “instructors” or “professors” but does not distinguish among them on the basis of standard ranks should be included in this category. However, if an institution utilizes another ranking scheme that is analogous to the standard ranks, it can be included in category I, II, or III as appropriate.

The AAUP institutional category assigned to an institution may change after meeting the criteria for another category for three consecutive years; exceptions are made on a case-by-case basis.

ABBREVIATIONS USED IN APPENDICES I AND II. Academic Ranks: PR = Professor; AO = Associate Professor; AI = Assistant Professor; IN = Instructor; LE = Lecturer; NR = No Rank; AR = All Ranks. All institutions that do not assign professorial ranks are listed in appendix II.

Col. (1) Institutional Category—The definition of AAUP institutional categories is given above.

Col. (2) Institutional Control—PU = Public; PI = Private-Independent; FP = Private For-Profit; PR = Private-Religiously Affiliated.

Col. (3) Average Salary by Rank and for All Ranks Combined—This figure has been rounded to the nearest hundred. “All Ranks Combined” includes the rank of lecturer and the category of “No Rank.” Salary averages are replaced by a dash (—) when the number of individuals in a given rank is fewer than three.

Col. (4) Percentage of Faculty Covered for Benefits and Benefits as a Percentage of Average Salary—Percentage of full-time faculty members (all ranks combined) who are eligible to be covered and average total expenditures for full-time faculty members who are eligible to be covered as a percentage of the average salary for all full-time faculty members. RET = Retirement benefits (as defined above); MED = Medical benefits (as defined above).

Col. (5) Dependent Tuition Benefit—F = Full tuition waiver at this institution; P = Partial tuition waiver at this institution; f = Full tuition waiver at specified institutions through a consortium or system; p = Partial tuition waiver at specified institutions through a consortium or system; T = Institution is a member of Tuition Exchange; O = Other (with an open-text response field); V = Tuition benefit varies based on years of service; N = None.

Col. (6) Percentage of Faculty by Tenure Status—T = Tenured; TT = Tenure-Track; NTT = Non-Tenure-Track. The figures represent the total number of full-time (FT) faculty members with a given tenure status.

Col. (7) Percentage Increase in Salary for Continuing Faculty—The percentage increase in salary for those 2021–22 full-time faculty members who remain employed as full-time faculty at the institution for 2022–23. This represents the average increase for individuals as opposed to a percentage change in average salary levels.

Col. (8) Number of Faculty Members by Rank and Gender—The figures represent the total number of full-time (FT) faculty members in a given rank by gender.

Col. (9) Average Salary by Rank and by Gender with Salary-Equity Ratios—Same definition as that given for col. (3) but by gender. Salary-equity ratio is the ratio of women’s to men’s average salaries, multiplied by 100.

ABBREVIATIONS USED IN APPENDIX III

Col. (1) Institutional Category—The definition of AAUP categories is given above.

Col. (2) Institutional Control—The definition of institutional control is given above.

Col. (3) Part-Time Faculty Pay—NO. = The number of part-time faculty members paid on a per-section basis. MIN. (\$) = Minimum pay for a standard course section, whether from actual data or by policy. MAX. (\$) = Maximum pay for a standard course section, whether from actual data or by policy. AVG. (\$) = Average (mean) pay for a standard course section.

Col. (4) Part-Time Faculty Benefits—RET = The proportion of part-time faculty members receiving an institutional contribution toward retirement benefits. MED = The proportion of part-time faculty members receiving an institutional contribution toward health-care benefits. None = no part-time faculty are eligible to receive benefits; Some = some part-time faculty are eligible to receive benefits; All = all part-time faculty are eligible to receive benefits.

Col. (5) Calendar—The institution’s academic calendar.

Appendices I, II, and III are published with the Faculty Compensation Survey results on the AAUP’s website. See <https://www.aaup.org/our-work/research/FCS>.

Any inquiries concerning the data in this report may be directed to the AAUP Research Office. Email: aaupfcs@aaup.org.

Faculty Compensation Survey Data Submission and Results Portal: <https://research.aaup.org>.

STATEMENT ON DATA QUALITY

The AAUP Faculty Compensation Survey collects data from colleges and universities across the United States through an online portal. These data are reviewed through our internal verification process. Whenever the AAUP believes an error may have occurred, we ask institutional representatives to review the specific issues we identify. Nearly all institutions comply with our requests for additional review. If resubmitted data meet our internal standard, they are approved for inclusion in published tables and appendices. Questionable data without an institutional response may be excluded.

While the AAUP makes every effort to report the most accurate data, the published tables and appendices may include inaccuracies, errors, or omissions. Users assume the sole risk of making use of these data. Under no circumstances will the AAUP be liable to any user for damages arising from use of these data. The AAUP publishes additions and corrections to the Faculty Compensation Survey results online and may make modifications to the content at any time.

Readers are requested to report possible errors in the published data to the AAUP Research Office at the email address above.