Overview

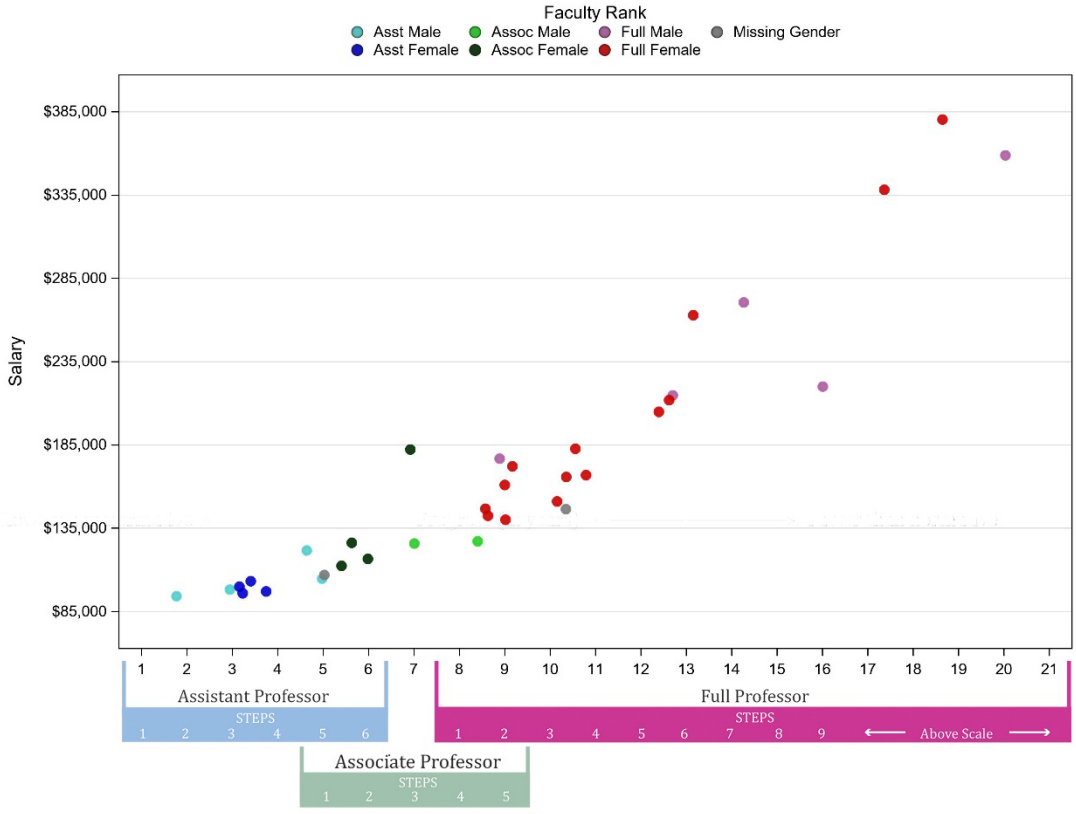
A committee conducted and prepared the annual campus pay equity study of faculty salaries for Professors and Professors of Teaching. The analyses presented in this report focus on the regression models and rate of progression through the ranks, consistent with our campus practice 2015-present. Data are examined at the whole campus level, and for 14 Schools/Units. Since 2020, Professors of Teaching are included in the analyses with faculty in the Professor series. This occurred with the transition of Lecturers with Security of Employment to Professors of Teaching titles and placement on the same rank/step system employed for the Professor series faculty. For analytical purposes, Professors and Professors of Teaching are treated as a single group. Analysis of salary data from October 2022 indicated that, after adjusting for experience, discipline, and rank, there was no evidence of systematic disparity in pay associated with gender and/or ethnicity at the campus level.

Methodology (see campus level report)

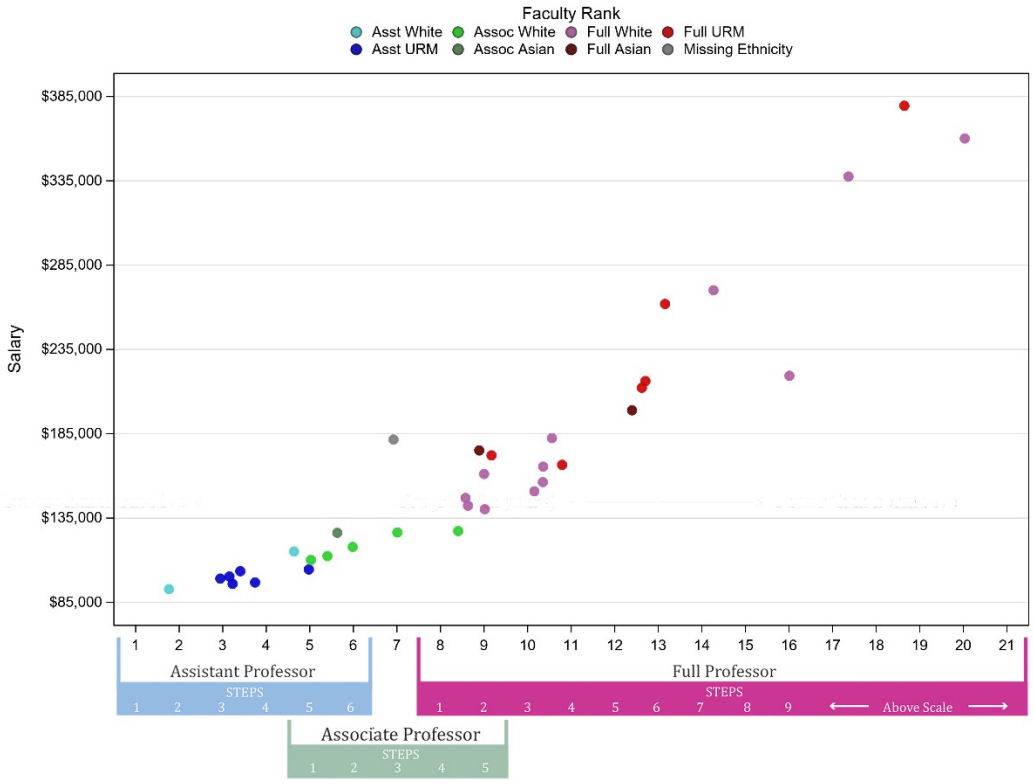
Results

1. Salary data for all ladder rank faculty plotted as a function of rank/step/gender and rank/step/ethnicity illustrated in Graphs 1 and 2. The salary data used in the analysis does not include summer salary.

Graph 1: Education, Salary by Rank/Step and Gender



Graph 2: Education, Salary by Rank/Step and Ethnicity



2. Multiple regression analysis of salary vs rank/step. As indicated in Table 1, the simplest model with only demographic variables shows that relative to white male faculty, women earn salaries that are about 1% higher, Asian faculty 2% higher, and URM faculty 8% lower. Only 1% of salary variation is explained by this model. After all control factors are added, 97% of salary variation is explained by a model with demographic, experience, field, and rank variables. After adjusting for covariates, relative to white male faculty, salaries are around 7% lower for faculty who are women, 7% higher for Asian, and 1% lower for URM faculty. In the final model, Male faculty earning 7% more than Female faculty is statistically significant. The final model predicted salaries within plus or minus 20.0%. (For technically-minded readers, the RMSE on the log base 10 scale is 0.040.)

Table 1

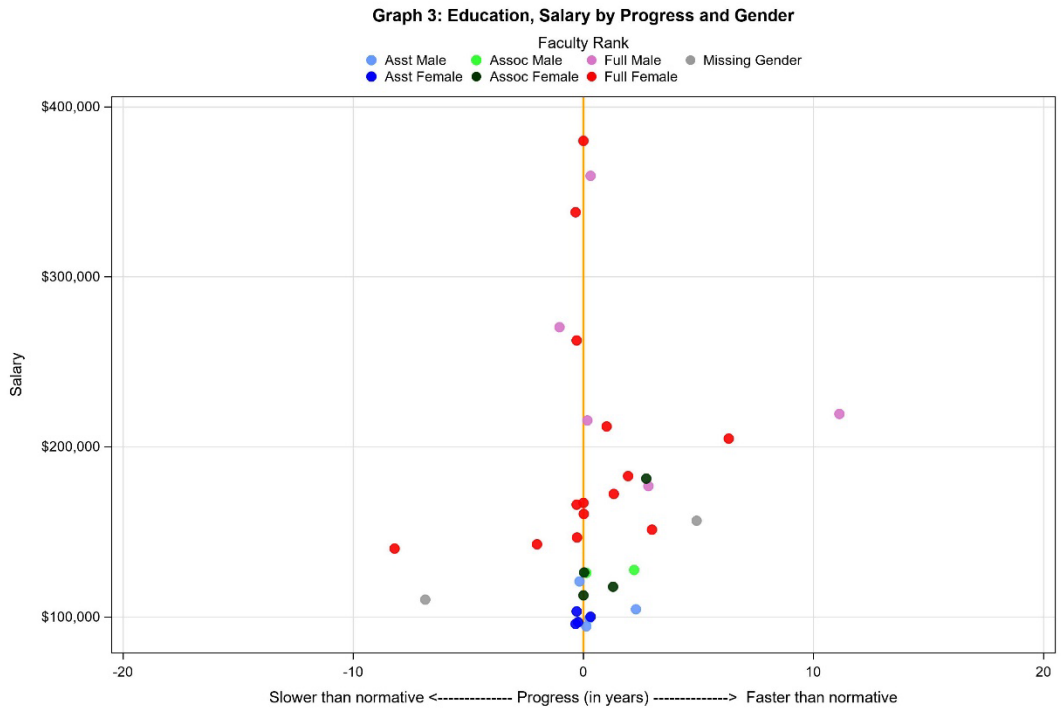
Model[1]	R-sq	Significant Variables	Salary Difference: Women vs Men	Salary Difference: Asian vs White	Salary Difference: URM vs White
1 Demography	0.01		1.1%	2.1%	-7.7%
2 Demography, Experience	0.89	Asian*, Experience***	-3.8%	27.9%	-7.3%
3 Demog, Exper, Field	0.94	Women*, Experience***, Market***	-10.3%	14.1%	0.3%
4 Demog, Exper, Field, Rank	0.98	Experience*	-1.3%	8.1%	-1.8%
5 Demog, Exper, Field, Rank[2]	0.97	Women*, Experience***, Field***, Rank***	-6.9%	7.2%	-0.5%

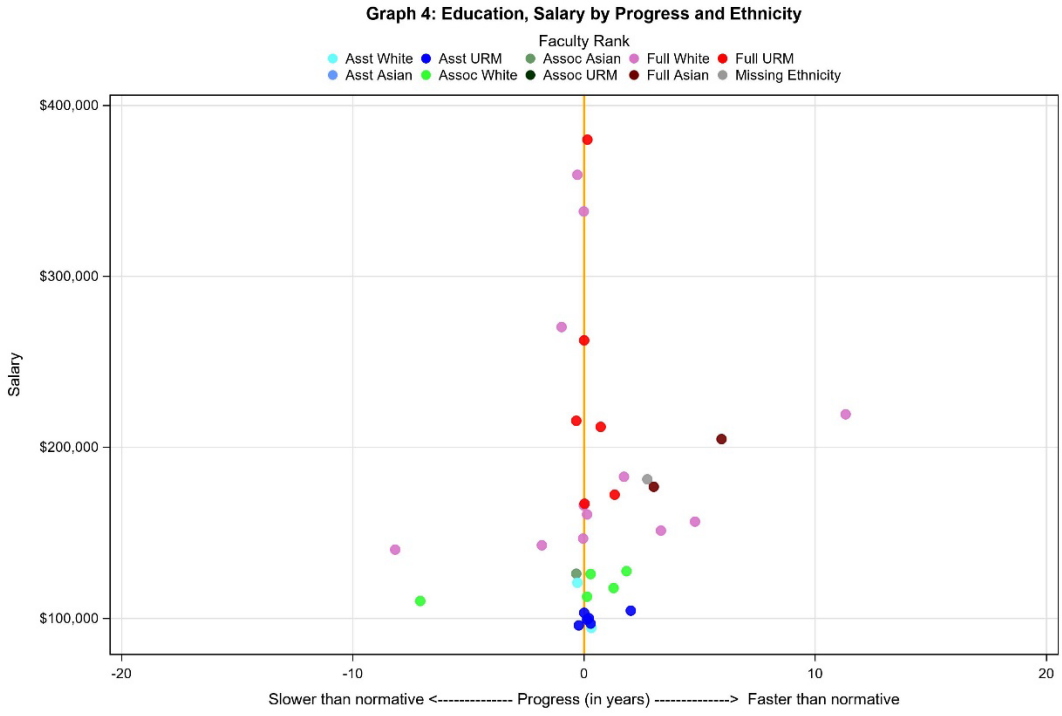
*p<0.05, **p<0.01, ***p<0.001

[1]Experience includes years of service, years since degree, and decade of hire. Field includes department and the market ratio of salaries tied to the faculty member's department. Rank includes their starting rank at UCI, their current rank at UCI, and where they stand in relation to normal progress.

[2]Final model adjusted for collinearity and included demographics, decade of hire***, years since degree***, market salary ratio***, and progress***.

3. Progress Rate plotted as a function of gender and ethnicity illustrated in Graphs 3 and 4





4. Progress Rate Analysis: Using a simple t-test, the results indicate that there is no statistically significant difference in progression rate means by either gender or ethnicity when compared to white male faculty.

Table 2

Progress Rate (in years) Comparison

Comparison	n	Mean	t	df	p-value
White Male vs	7	1.71			
Women	22	0.32	-1.10	27	0.282
URM[a]	12	0.33	-0.87	6	0.419
Asian	3	3.00	0.47	8	0.648

[a]Homogeneity of variance assumption not met. Satterthwaite variance estimator used.