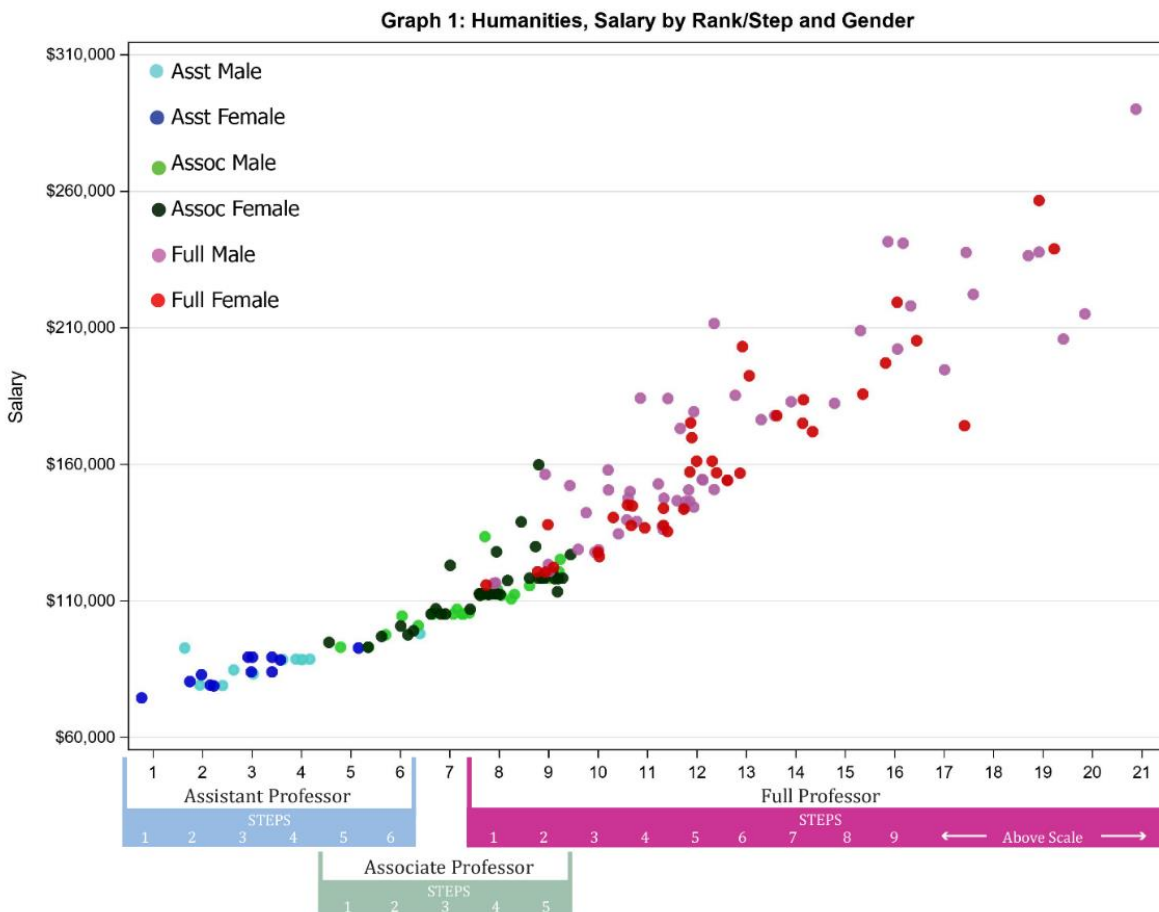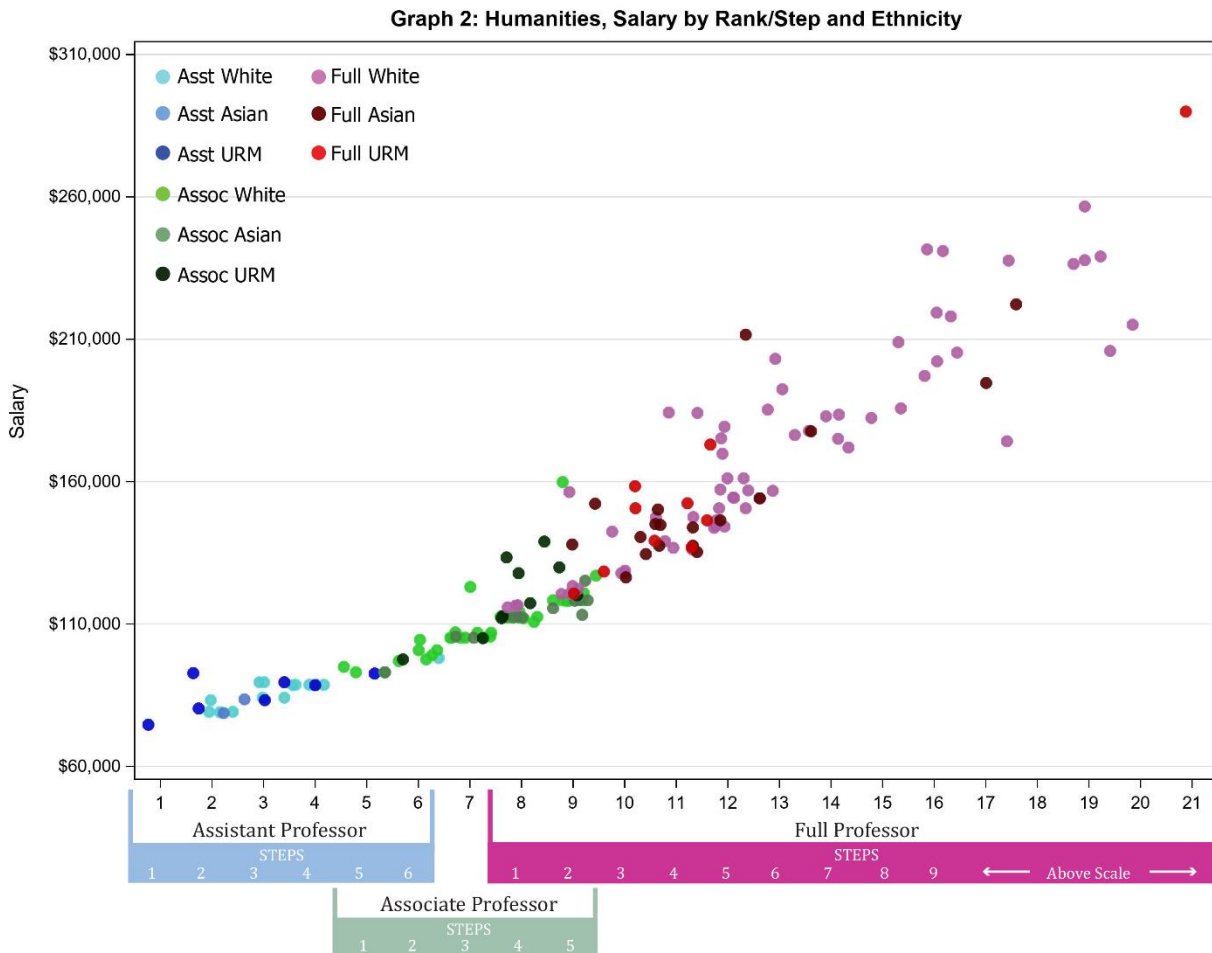## Overview

A joint Administration-Academic Senate Committee collaborated on our annual campus pay equity study of ladder rank faculty salaries. The analyses presented in this report focus on regression models that go beyond the annual residual analysis conducted in the past (1997-2014) and include evaluation of rate of progression through the ranks. For the first time in 2020, Professors of Teaching are included in the analyses with other ladder rank faculty. This occurred after the transition of Lecturers with Security of Employment to stepped Professors of Teaching titles. For analytical purposes, they are treated the same as other ladder rank faculty. Analysis of salary data from October 2019 indicated no evidence of systemic disparity in pay associated with gender and/or ethnicity at the campus level when experience, discipline, and rank are included in the model.

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.

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

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Graph 2: Humanities, 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 9% lower, Asian faculty 3% and URM faculty 11% lower. Only 4% of salary variation is explained by this model. After all control factors are added, 94% 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 1% lower for faculty who are women, 0.3% lower for Asian, and 5% higher for URM faculty.

Table 1

| Submodel[1]	R-sq	Significant Variables	Salary Difference		
			Women vs Men	Asian vs White	URM vs White
1 Demography	0.04	Women*	-9.0%	-3.2%	-11.3%
2 Demography, Experience	0.73	Experience***	-4.5%	-4.2%	-1.1%
3 Demog, Exper, Field	0.76	Experience***, Field**	-3.9%	-2.9%	2.5%
4 Demog, Exper, Field, Rank	0.94	URM*, Rank***	1.3%	-0.5%	4.7%
5 Demog, Exper, Field, Rank[2]	0.94	URM*, Rank***	-1.0%	-0.3%	5.3%

*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 corrected for collinearity and included demographics, decade of hire, department, years since degree, market salary ratio, progress, and current rank***.

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

Graph 3: Humanities, Salary by Progress and Gender

Graph 4: Humanities, Salary by Progress and Ethnicity
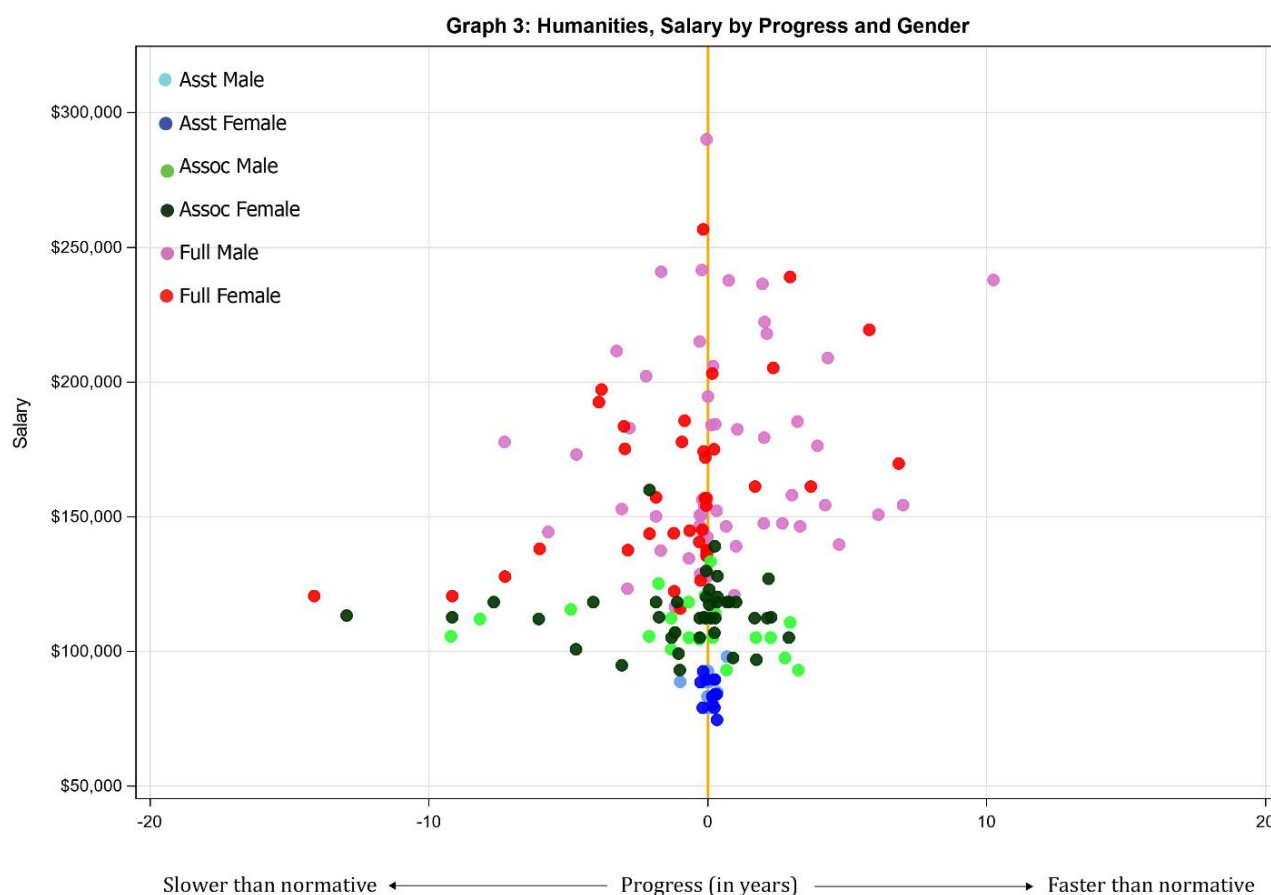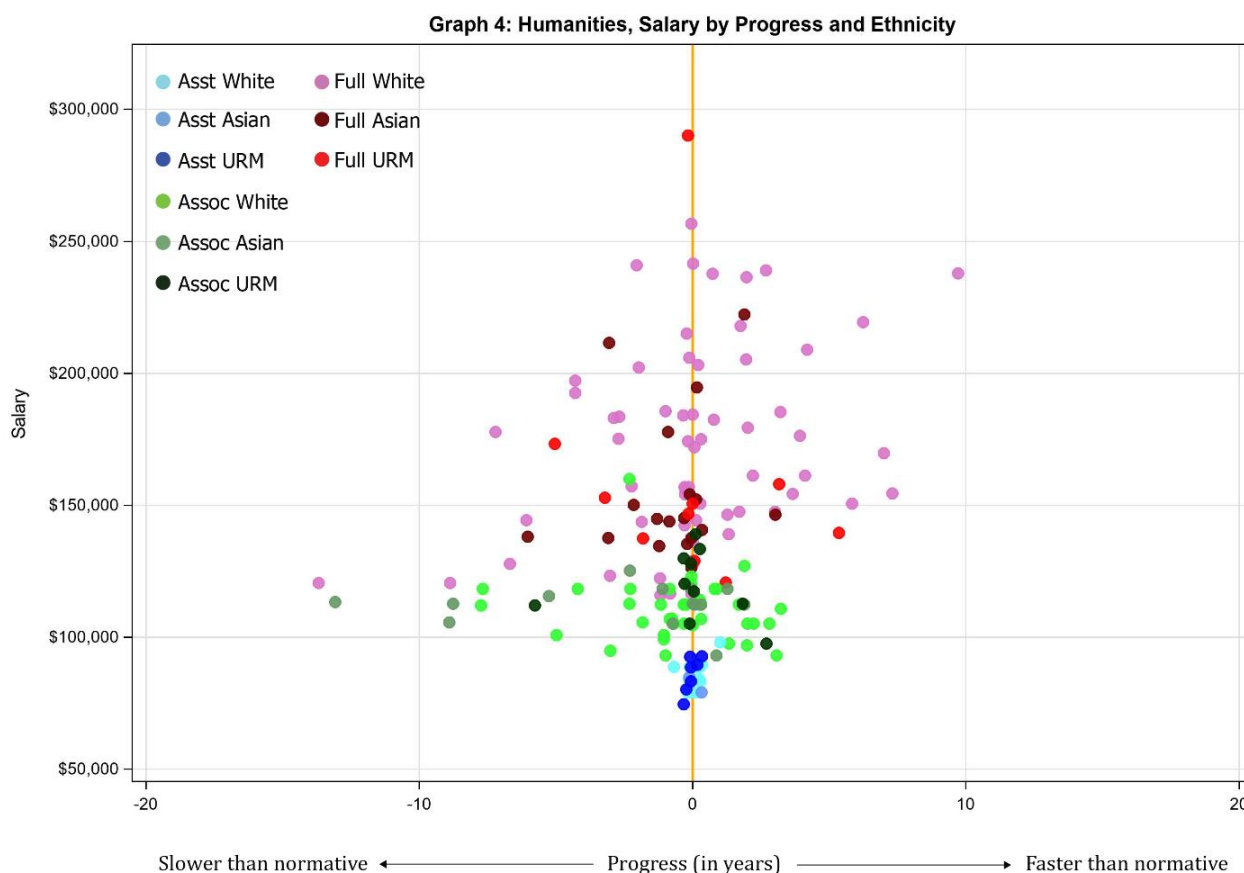
4. <u>Progress Rate Analysis</u>: Using a simple t-test, the results indicate that there is no statistically significant difference in progression rate means between URM and white male faculty. However, female faculty progress 1.4 years and Asian faculty 1.9 years more slowly than white males. After using multivariate regression to adjust for experience, discipline, and initial rank, there was no statistically significant difference in rates of progression between White men, and URM or Asian faculty. Women progressed at a significantly slower rate than men (b = -0.93, p = .0457).

Progress Rate (in years) Comparison

Comparison	n	Mean	t	df	p-value
White Male vs	56	0.46			
Women	89	-0.91	-2.58	143	0.011
URM	27	-0.07	-0.85	81	0.398
Asian	34	-1.44	-2.83	88	0.006

Note. Multivariate regression was conducted estimating rates of progression adjusting for experience, discipline, and initial rank.