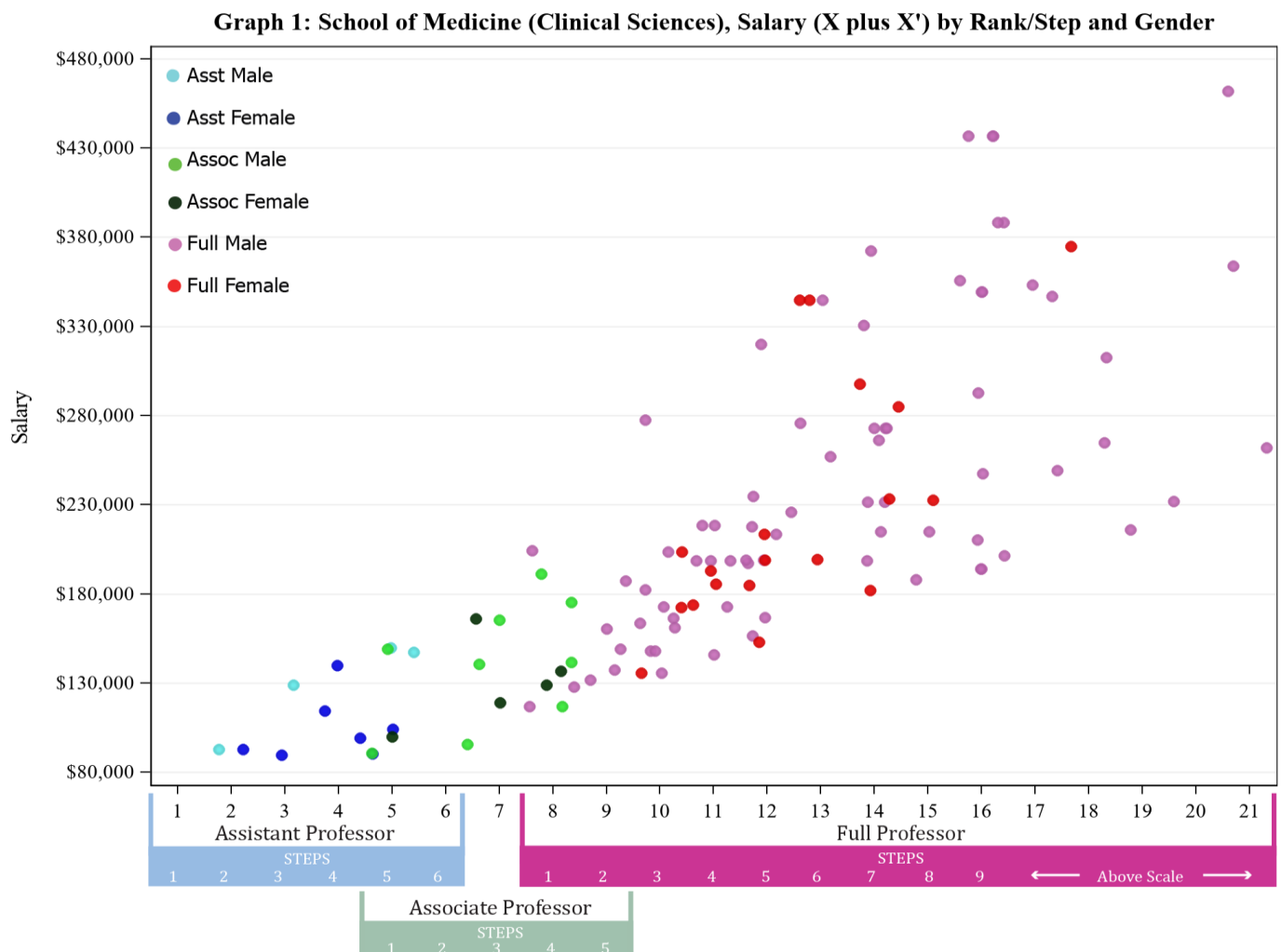## Overview

A joint Administration-Academic Senate Committee redesigned 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. Analysis of salary data from October 2018 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: School of Medicine (Clinical Sciences), Salary (X plus X') by Rank/Step and Gender

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Graph 2: School of Medicine (Clinical Sciences), Salary (X plus X') by Rank/Step and Ethnicity
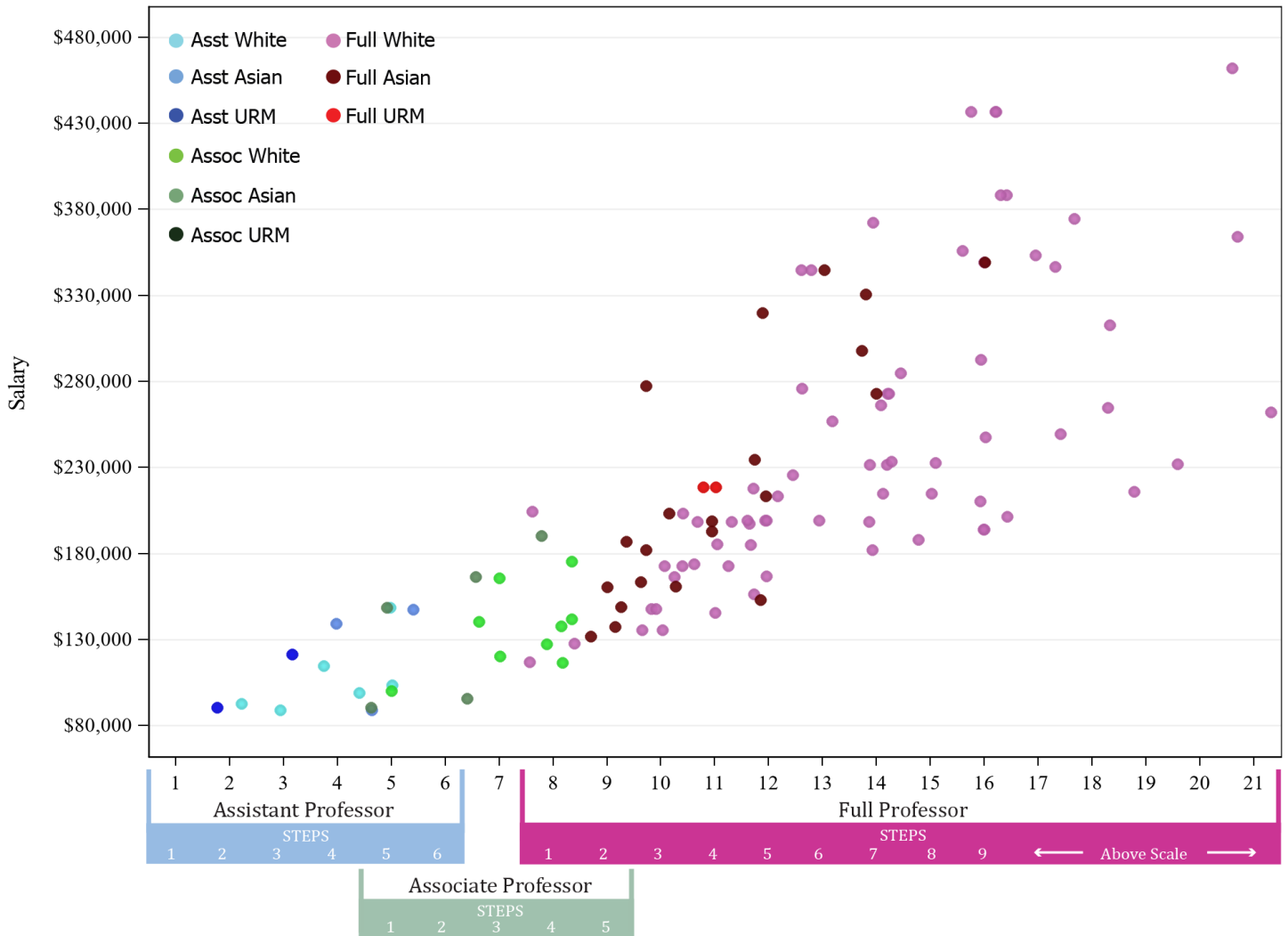
2. Multiple regression analysis of salary vs rank/step. As indicated in Table 1, the simplest model with only demographic variables shows that relative to white male faculty, women earn salaries that are 9.5% less, Asian faculty earn 11% and URM faculty earn 23% less. Only 4% of salary variation is explained by this model. After all control factors are added, 71% 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 2% higher for faculty who are women, 12% higher for Asian, and 17% lower for URM faculty. Asian faculty earned significantly more than white male faculty.

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2019 Faculty Salary Equity Study
School of the Medicine (Clinical Sciences)
X Plus X'

Table 1

| Submodel[1]	R-sq	Significant Variables	Salary Difference		
			Women vs Men	Asian vs White	URM vs White
1 Demography	0.04		-9.5%	-11.3%	-23.4%
2 Demography, Experience	0.51	Experience***	-0.6%	7.1%	7.5%
3 Demog, Exper, Field	0.52	Experience***	-0.8%	6.3%	10.2%
4 Demog, Exper, Field, Rank	0.72	Rank***	1.0%	10.3%	21.3%
5 Demog, Exper, Field, Rank[2]	0.71	Asian*, Rank***	1.6%	11.9%	17.4%

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

[1]Experience includes years of services, years since degree, 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.
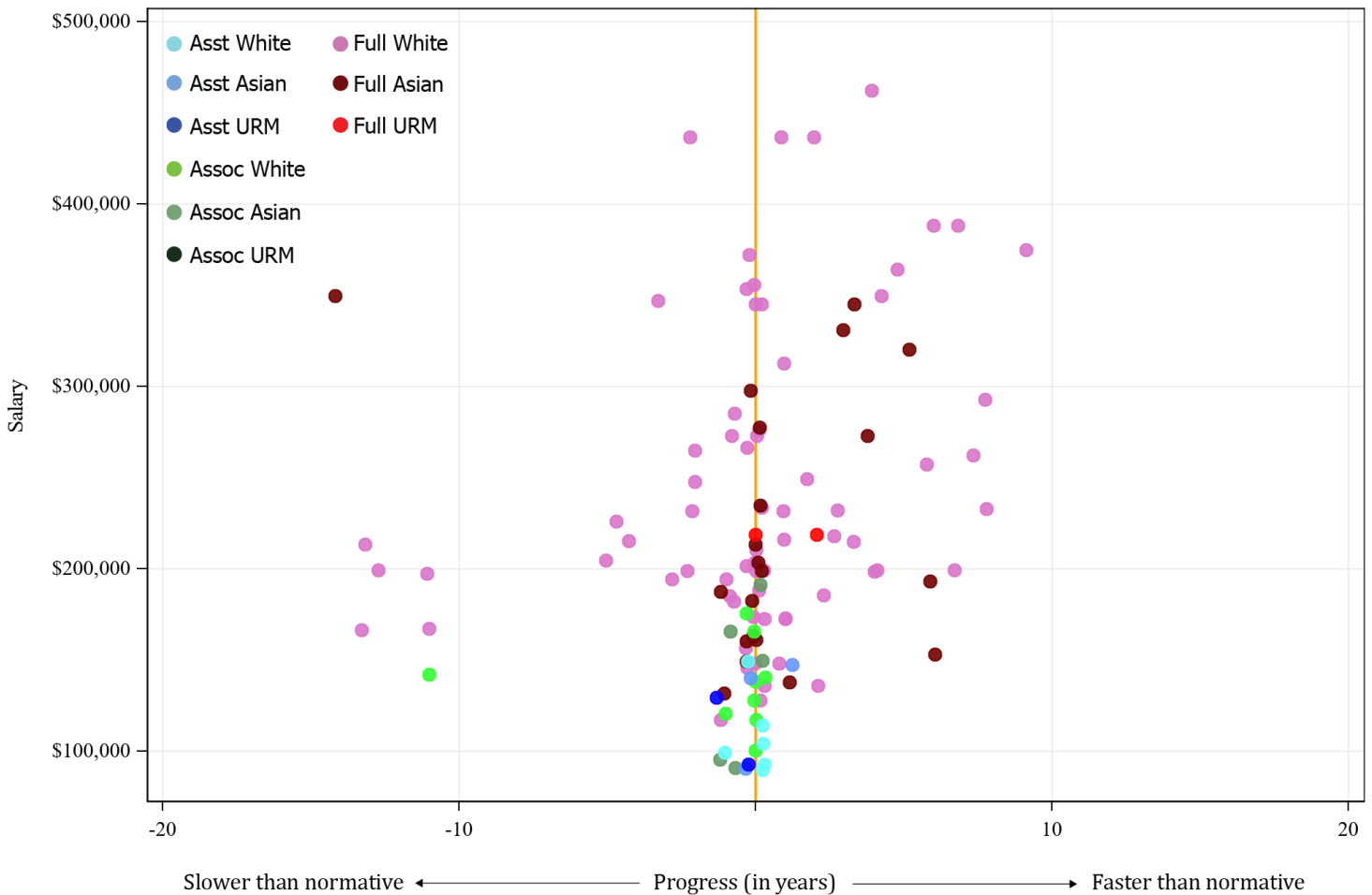
[2]Final model corrected for collinearity and included demographics, decade of hire, years since degree, market salary ratio, progress, current rank***, and starting rank.

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

Graph 3: School of Medicine (Clinical Sciences), Salary (X plus X') by Progress and Gender

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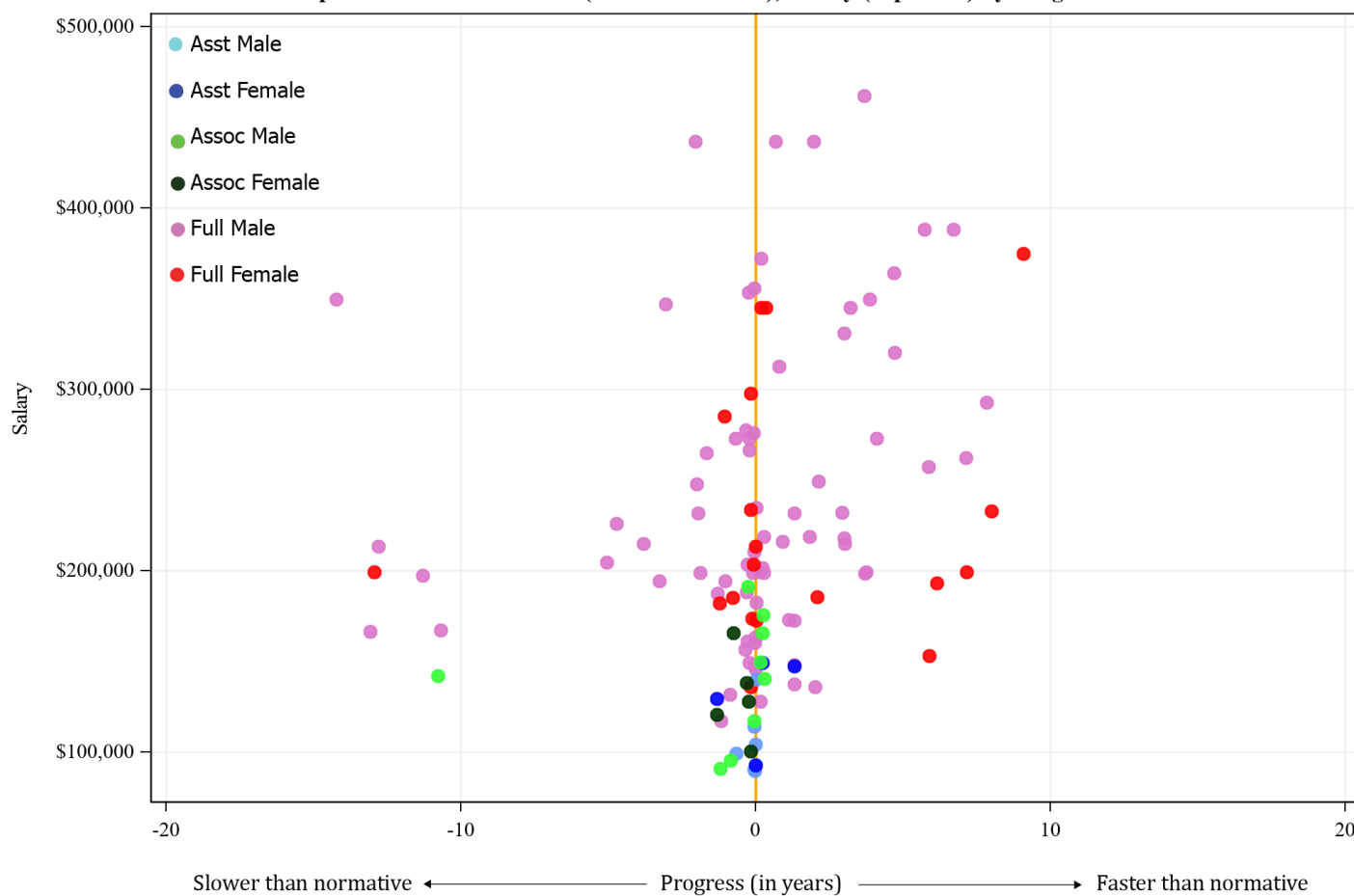
Graph 4: School of Medicine (Clinical Sciences), Salary (X plus X') by Progress and Ethnicity

Progress (in years)

Slower than normative ← Progress (in years) → Faster than normative

Legend: Asst White, Asst Asian, Asst URM, Assoc White, Assoc Asian, Assoc URM, Full White, Full Asian, Full URM

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.

Progress Rate (in years) Comparison

Comparison	n	Mean	t	df	p-value
White Male vs	65	-0.25			
Women	28	0.71	1.01	91	0.315
URM	4	0.25	0.23	67	0.819
Asian	29	0.34	0.65	92	0.515