

Faculty Equity studies 2018-2019

Previous (2011 and 2013-14) and most recent (March 2018) analyses of salary equity have found no significant difference in salaries at the same rank and step on the basis of gender or ethnicity, with the exception that African Americans have a 4% higher salary in the 2018 study. In addition, analysis of individual salaries showed all but 4 faculty who were still progressing through the merit system were within 90% of the mean for rank and step in the discipline. The deans of those faculty were contacted to request they make an adjustment during the salary program. Those faculty included 3 at 88% and one at 89% of the mean. Three of these individuals identified as male and one as female, two identified as Asian, one as Chicana/Latina and one as Domestic unknown.

However, the 2013-14 UCR study suggested that those who identified as female might progress more slowly through the merit and promotion process than those who identify as male, although the study was not designed to adequately address whether or not this was true <https://academicpersonnel.ucr.edu/compensation/UCRSalaryEquityFinalReport.pdf>. Meanwhile, other UC campuses have reported both the same finding in regard to no significant differences among genders and ethnicities and evidence in support of a progression difference. A systemwide Faculty Salaries Equity Studies meeting in Oakland October 31st, 2018, attended by the VPAP and faculty members, Mary Gauvain (who chaired the 2013-14 report) and Dan Jeske (Faculty Welfare), included presentations from most campuses, several of which reported a slower progression through the ranks for women. In the previous version of this document, I presented data from UC Davis for the period 1991-2013. I now present data, courtesy of **Institutional Research**, from UCR for the period July 2000 through August 2019.

Figures 1-4 show the relationships between time at a given rank and promotion to the next rank among all those promoted from July 2000 through August 2019 who started at a given rank in July 2000 or later. Tables 1-2 show the average time to promotion represented in these graphs – a way of quickly summarizing the overall trends in the graphs.

UCR data

Figure 1 shows almost perfect overlap at all time points. A regression analysis that predicted the average number of years until promotion to Associate professor did not support any meaningful difference between those identifying as male or female.

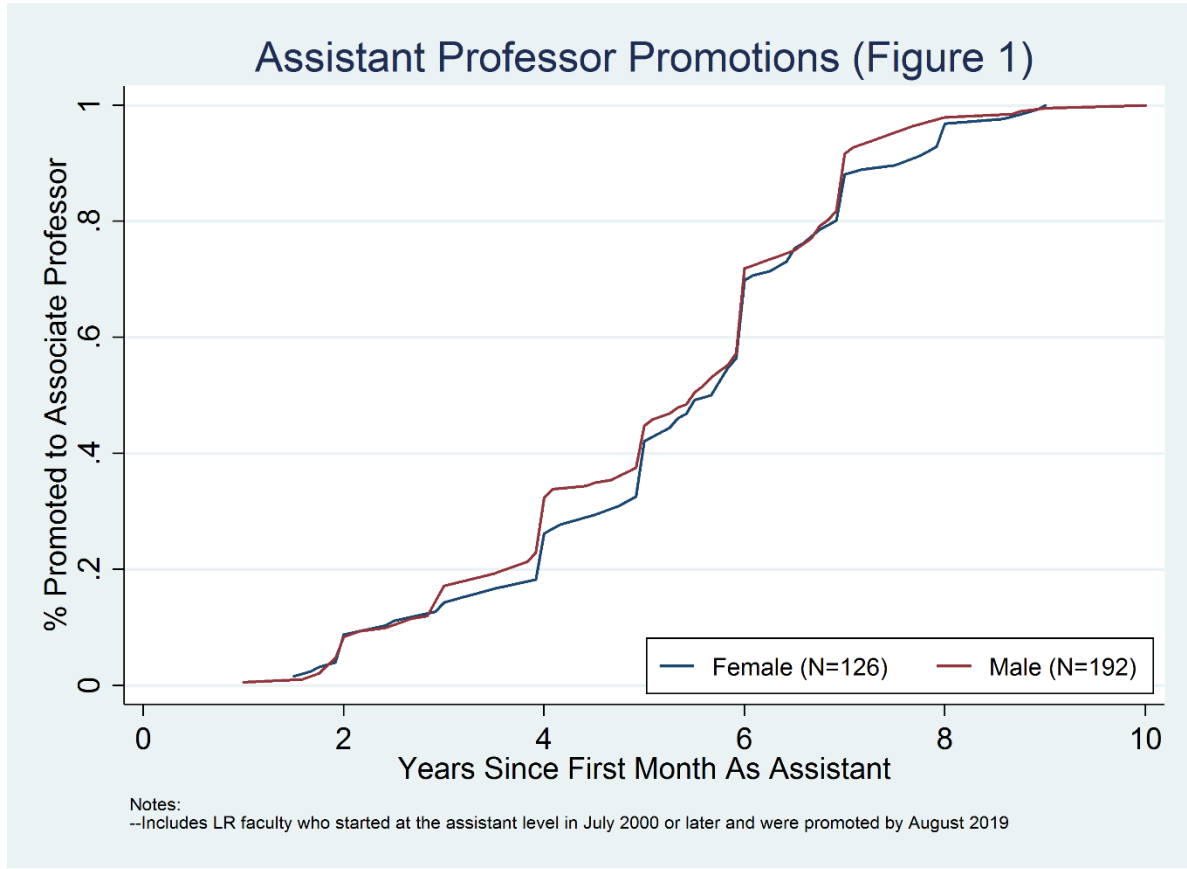


Table 1. Promotions of Assistant and Associate Professors by Gender (2000-2019)

	Years Between Assistant and Associate		Years Between Associate and Professor	
	N	Years	N	Years
Male	192	5.2	133	4.8
Female	126	5.3	61	5.9
Total	318	5.2	194	5.1

By contrast, figure 2 shows a relatively consistent male advantage in speed of promotion from Associate to Full Professor. Regression analysis and Table 1 show that females took an average of 1.1 extra years to be promoted to Full Professor from the start of their time as Associate professor ($p < 0.01$).

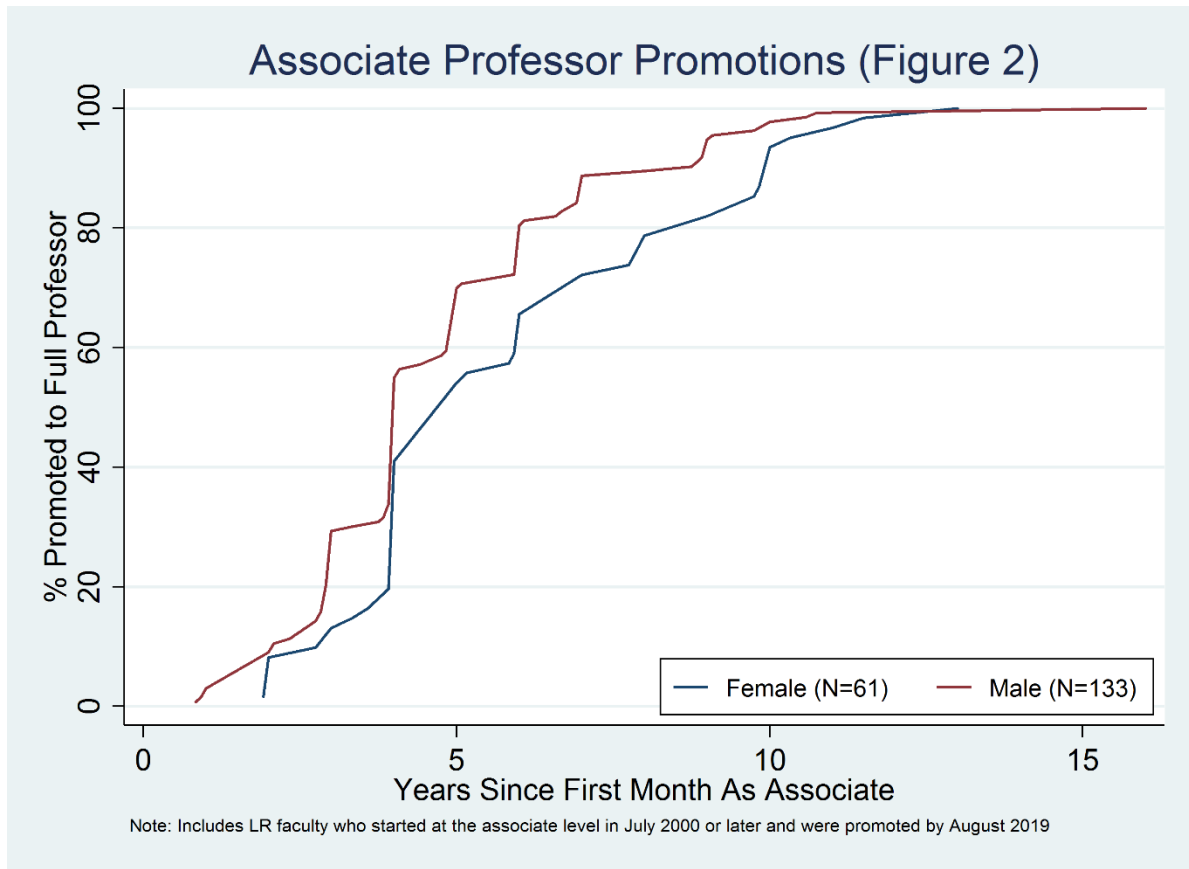
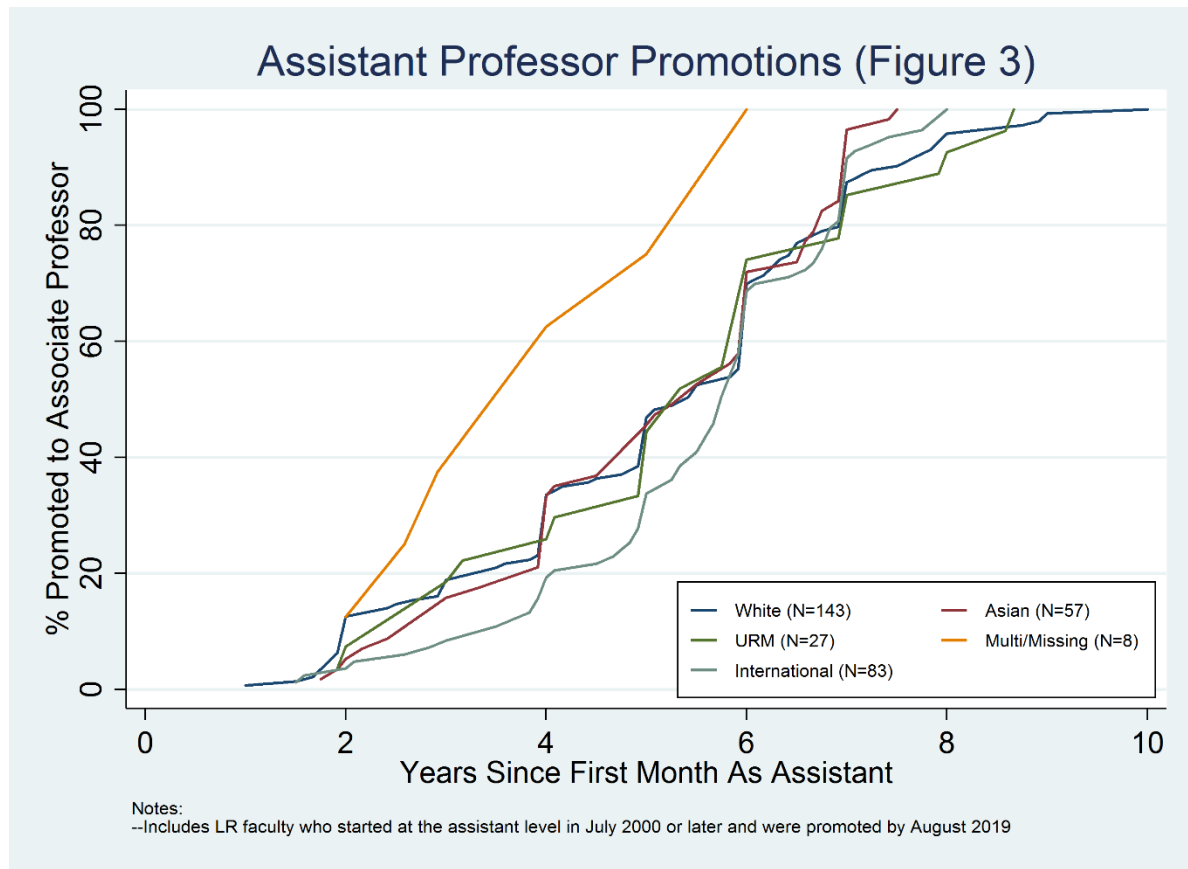


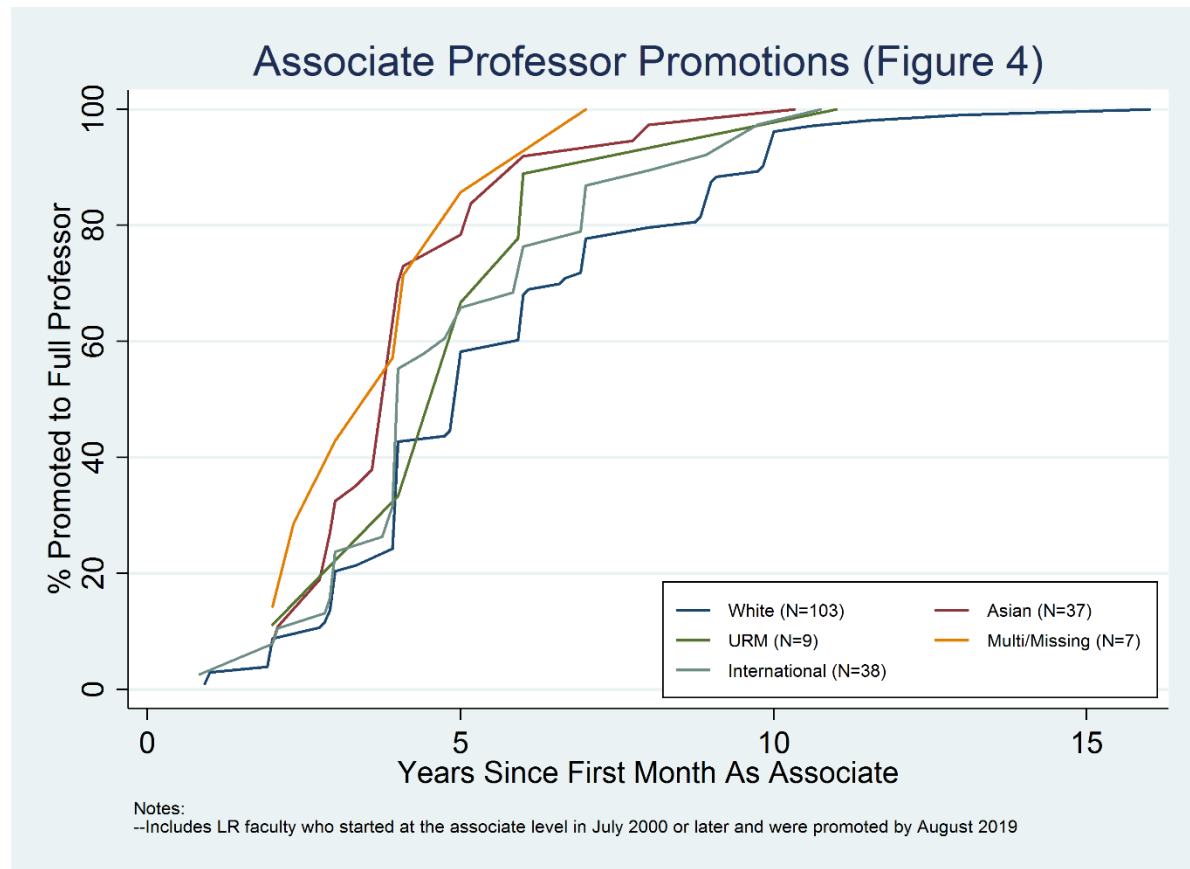
Figure 3 and Table 2 shows relatively close overlap across race/ethnicity for promotion from Assistant to Associate Professor with the exception of Multi/Missing. However, because the Multi/missing group is so small (8 promotions over the past 20 years), interpretation of the trend, which did not reach significance because of the numbers, must be treated with caution. A regression analysis that predicted average years until promotion to Associate showed limited evidence that the trends for any group are meaningfully different ($p < .10$ when comparing Multi/Missing to White, and $p > .14$ for all other comparisons to White).

Table 2. Promotions of Assistant and Associate Professors by Race/Ethnicity (2000-2019)

	Years Between Assistant and Associate		Years Between Associate and Professor	
	N	Years	N	Years
White	143	5.2	103	5.6
Asian	57	5.1	37	4.2
URM	27	5.4	9	5.2
Multi/Missng	8	4.1	7	3.9
International	83	5.5	38	4.9
Total	318	5.2	194	5.1



Conversely, Figure 4 and Table 2, shows a more robust trend. Asian Associate professors were noticeably faster to be promoted to Professor than the White, International, and URM groups ($p < .01$ when compared to that combined set of groups). The Multi/Missing group again showed a very fast average, but again that group was so small that interpretive caution is warranted.



Is there a difference in the success rate?

The data presented thus far reflect those who were successful in their quest for promotion. We therefore also asked whether there was a gender difference in who gained tenure. The time frame for analysis allowed for two stop-the-clocks at the Assistant to Associate level and assessed differences in the Associate to Full at 10 years and 15 years (table 3).

Table 3. Assistant Professors Starting Between July 2000 and August 2009

	N	Promoted to Associate Professor Within 10 Years
Male	198	68.2%
Female	130	70.8%
Total	328	69.2%

Associate Professors Starting Between July 2000 and August 2009

	N	Promoted to Professor Within 10 Years
Male	126	70.6%
Female	62	58.1%
Total	188	66.5%

Associate Professors Starting Between July 2000 and August 2004

	N	Promoted to Professor Within 15 Years
Male	46	76.1%
Female	25	72.0%
Total	71	74.6%

The data in Table 3 show no difference in the percentage of male and female faculty achieving tenure, but support the slower progression of female faculty to Full professor, although there is only a trend and no statistical significance ($p = 0.09$). Overall, promotion statistics are no different between males and females at the 15 year mark.

What accounts for no difference at the Assistant level and more rapid progression of males and some ethnicities from Associate to Full Professor? Is it the result of the number of steps proposed and accomplished at each move?

Table 4. Salary Step Moves by Gender (2007-2019)

	N	0	1	2+
Assistant Professor				
Male	1144	63.1%	34.4%	2.5%
Female	773	62.7%	34.3%	3.0%
Total	1917	63.0%	34.3%	2.7%
Associate Professor				
Male	1063	64.4%	28.5%	7.2%
Female	800	63.8%	29.6%	6.6%
Total	1863	64.1%	29.0%	6.9%
Professor				
Male	2097	71.9%	22.7%	5.4%
Female	673	70.0%	24.5%	5.5%
Total	2770	71.4%	23.1%	5.5%

Provided by Institutional Research (3 OCT 2019)

Table 4 shows that at all levels, there are no significant differences between those who identify as male versus female in terms of likelihood to achieve a 1 step versus 2 step increase. However, when analyzing by race/ethnicity (table 5), Asian faculty are more likely than white faculty to achieve a 2 step advance at the Assistant level (p 0.03), Multi/missing at the Associate level (p 0.02) and both Multi/missing and International at the Full professor level (p 0.02 and 0.01, respectively).

Table 5. Salary Step Moves by Race/Ethnicity (2007-2019)

	N	0	1	2+
Assistant Professor				
White	747	61.5%	36.4%	2.1%
Asian	342	63.7%	31.6%	4.7%
URM	227	68.3%	30.4%	1.3%
Multi/Missing	69	66.7%	31.9%	1.5%
International	532	61.8%	35.2%	3.0%
Total	1917	63.0%	34.3%	2.7%

Associate Professor				
White	980	66.6%	26.9%	6.4%
Asian	275	59.6%	32.4%	8.0%
URM	208	69.7%	23.1%	7.2%
Multi/Missing	41	61.0%	24.4%	14.6%
International	359	57.7%	35.9%	6.4%
Total	1863	64.1%	29.0%	6.9%
Professor				
White	1723	72.9%	22.4%	4.7%
Asian	447	68.5%	25.5%	6.0%
URM	203	75.4%	19.7%	4.9%
Multi/Missing	92	70.7%	19.6%	9.8%
International	305	64.9%	27.2%	7.9%
Total	2770	71.4%	23.1%	5.5%

Provided by Institutional Research (3 OCT 2019)

Are other UCs doing better?

When UC Davis instituted what they call the Step Plus system, the rates of progression of faculty who identified as male and female became indistinguishable. There are insufficient numbers at this point to say anything about race/ethnicity.

The Step Plus system

The way this works is that at the time of normal merit advance, **every file** is evaluated for no merit, a normal 1 step merit, a 1.5 step merit (equivalent in salary to what we currently call a step plus an additional offscale) and a 2 step merit. All merits occur at the normal intervals and so there are no accelerations in time except for promotion. i.e. you can go up for promotion when you are ready. At the time of promotion, the same normal, 1.5, or 2 moves are evaluated. With all of the data above, the Senate has been asked for feedback on the adoption of a step plus system at UCR.

Why might this be better?

The evaluation of every file for a 0, 1, 1.5 or 2-step increase makes the department and all reviewers consider the true merits of a given file. It eliminates biases in who the department immediately thinks of as likely worthy of a greater than one step move, and it removes gender and racial differences that may exist in who is likely to request more than a one-step move.

The regular review of all files with these four actions in mind would allow the campus as a whole to become better calibrated about what constitutes a 1, 1.5 or 2-step increase. In our current system, if the department has not voted on an offscale or acceleration, the working assumption is they do not consider the file worthy of same, although often the possibility has not actually been considered unless

specifically requested by the candidate. Furthermore, if reviewers later in the process suggest an acceleration, the requirement is for the file be sent back to previous levels, thereby adding to workload and time. There is therefore a barrier to doing this too often.

Workload impact

The Step Plus system allows no accelerations in time. Therefore, there would be no 1 year accelerations for those on a 2-year cycle and no 1 or 2 year accelerations for those on a 3-year cycle, thereby reducing the number of files being considered each year. In the 2017-18 cycle, there were 22 proposals for these types of accelerations in time. Assuming this was a typical year, then workload at all levels of review would be reduced by ~6% with the new approach. This may be counterbalanced some by the extra thoughtfulness required for each file in the Step Plus approach. In time, there should also be less need for career reviews, which should reduce workload and reduce the frequency with which candidates need to ask for extramural letters.