

January 17, 2023

LORI KLETZER  
Campus Provost and Executive Vice Chancellor

**RE: Development of a Faculty Salary Equity Review Policy**

Dear Lori,

The Academic Senate has received your draft of a proposed Salary Equity Review (SER) program. The Committees on Affirmative Action and Diversity (CAAD, Academic Personnel (CAP), Faculty Welfare (CFW) and Planning and Budget (CPB) have reviewed the outline of a formal SER program, and have provided feedback and responses on the draft. All of the committees signaled gratitude at being consulted in the early stages of this policy. ***Please consult the committee responses for their specific feedback.***

Senate Executive Committee (SEC) also discussed the the SER policy and highlighted the following issues:

Pay equity disparities develop over time. CAAD and CFW believe that a task force is called for to seek and address structural inequities which are baked into the system. This effort may help to address the salary inequities structurally rather than adjustments being attenuated to individual cases. These inequities may include huge differences in pay across cohorts that have arisen due to factors such as housing market or availability of employee housing at the time of hire. Related to this concern, was some discussion that this program could be programmatic and a part of the regular advancement process rather than individually requested.

A second concern of SEC was that some faculty, in particular LSOEs or faculty with limited internal disciplinary peers, do not have useful comparators on which to base the analysis of this program. Utilizing, or developing a process by which we can leverage external (or other?) compensation data for these or other identified groups should be done proactively for groups like the known LSOEs, and in a timely manner for future individuals or small groups when they arise.

Thank you for the opportunity to provide comments on this important nascent policy in support of providing equity for faculty.

Sincerely,



Patty Gallagher, Chair  
Academic Senate

Enc: Committee Responses bundle

cc: Herbert Lee, Vice Provost, Academic Affairs  
Ann Pham, AEVC & COS  
Kirsten Silva Gruesz, Chair, Committee on Affirmative Action and Diversity  
Alexander Sher, Chair, Committee on Faculty Welfare  
Stefano Profumo, Chair, Committee on Academic Personnel

Dard Neuman, Chair, Committee on Planning and Budget  
Tracy Larrabee, Vice Chair, Committee on Planning and Budget  
Matthew Mednick, Executive Director, Academic Senate

January 17, 2023

Patty Gallagher, Chair  
Academic Senate, Santa Cruz Division

**Re: CP/EVC's Development of a Faculty Salary Equity Review Policy**

Dear Patty,

The Committee on Affirmative Action and Diversity (CAAD) has reviewed and discussed the CP/EVC's proposed Development of a Faculty Salary Equity Review Policy and the creation of Salary Equity Review (SER). The committee appreciates the administration's consultation of the Senate for initial feedback in its development of SER policy. In response, we would like to focus on the potential for underrepresented faculty (sometimes underrepresented by gender, sometimes by race/ethnicity with or without gender) to be disadvantaged by such overarching policies. Below, we address three components of the SER policy: eligibility, criteria, and comparators.

**Eligibility:** With regard to eligibility, CAAD requests to see further attention to the analysis of potential disparities in salary over time based on race, ethnicity, and gender. From 2012-2015, Academic Senate committees carefully examined and reported on both promotion growth and salary growth according to these categories, finding some disparities of concern.<sup>1</sup> The most recent APO analysis, presented in the *Report on Faculty Salary Equity at the University of California, Santa Cruz* (October 2018), found "no effects of gender or race/ethnicity on promotion growth before considering department, but we did find some salary differences, which again were related to department." Regular monitoring of the equity climate requires statistical expertise and time-consuming analysis, and it is not clear that Senate committees have the capacity to continue making such reports. Instead, we think the institution is responsible for doing this kind of analysis and taking it into account when drafting policy. Faculty Equity Advocates can help with this kind of monitoring, and aid individuals in identifying patterns that may help direct them toward, or away from, an SER process.

**Criteria:** The committee suggests that SER criteria should not solely or even primarily focus on comparisons of scholarly achievement, as this is not the only relevant category for advancement, and that the policy be attentive to under-recognized DEI service in various forms, which is often done by underrepresented faculty. This hidden service may, for instance, take the shape of mentoring undergraduate and graduate students in ways that contribute significantly to retention and student success. An effective Salary Equity Review should include a way to recognize and account for these contributions in a substantive way.

In addition, we feel that greater focus should be placed on teaching as a criteria, as an effective SER policy will also serve its Senate faculty constituents in the Teaching Professor series, who research and prioritize instruction.

**Comparators:** The committee sees many potential problems with soliciting comparison salaries from external recommenders. For one, the teaching/service aspects of un- or under-

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<sup>1</sup> Please refer to the enclosed Committee on Faculty Welfare's Faculty Salary Analysis, April 2018

rewarded contributions (e.g., contributions to diversity) may be more likely to emerge as a cause of inequity than scholarly accomplishments, and thus external letters solicited during major reviews would not be as useful. For another, it may be challenging and problematic for letter writers, especially non-UC faculty, to comment knowledgeably about comparison salaries. Finally, other institutional merit review systems often have different priorities and values than UC Santa Cruz's.

CAAD looks forward to a fully articulated proposal, as well as an articulation of the process for crafting the policy and a potential timeline. We are hopeful that Faculty Equity Advocates (FEA), whose work centers on just these issues, will be incorporated in the process of formulating this important policy

Sincerely,



Kirsten Silva Gruesz, Chair  
Committee on Affirmative Action and Diversity

Encl. Committee on Faculty Welfare's Faculty Salary Analysis, April 2018  
APO Report on Faculty Salary Equity at the University of California, Santa Cruz,  
October 2018

cc: Stefano Profumo, Chair, Committee on Academic Personnel  
Alexander Sher, Chair, Committee on Faculty Welfare  
Dard Neuman, Chair, Committee on Planning and Budget  
Senate Executive Committee

January 14, 2023

Patty Gallagher, Chair  
Academic Senate

**Re: Development of a Faculty Salary Equity Review Policy**

Dear Patty,

During its meeting of January 12, 2023, the Committee on Academic Personnel (CAP) discussed CP/EVC Kletzer's request for preliminary feedback on the development of a Faculty Salary Equity Review Policy (SER). Members acknowledged that establishing a SER process is both highly strategic and very desirable. Such a process would correct the present inequity in that *de facto* it is now only available to faculty in administrative roles<sup>1</sup>. CAP invites the Administration to (1) identify, review, and share with the Academic Senate the SER policies at other UC campuses as well as at other R1 universities elsewhere, and (2) to continue vigorous Senate consultation with all relevant committees (including but possibly not limited to CAP, CAAD, CPB) throughout the process of defining this new policy.

CAP strongly encourages the process of establishing a SER policy to be driven by guiding principles attached to *clear overarching goals*: members suggested (1) eliminating the persistent faculty salary gap between genders; (2) disincentivizing faculty members from seeking outside offers in order to secure substantial salary raises; (3) correcting salary inequities generated by securing such outside offers. It will also be important to differentiate the newly established SER process from the existing Career Equity Review (CER) process.

**Eligibility**

Members agreed that SER be available, or even automatically considered, for every faculty member at every review. Other details on how the process should work: the SER should not require faculty to initiate the process, because doing so could exacerbate inequities (for instance those who would most likely request a SER might not be those with inequitable salaries, possibly thus further enhancing inequity). Members suggested that a third party (for instance shadow Divisional CAPs, or CAP itself) should be tasked with identifying possible faculty members who have been subject to salary inequities; this same third party could be tasked with providing some analysis of the status of research, teaching, and service through time; and with looking for comparators with similar, or at least comparable, research, teaching, and service accomplishments. As noted above, the SER process might benefit from a built-in trigger, possibly arising from consideration of a combination of data, including salary comparisons generated annually, as well as from a review by an independent group. As part of the consideration of process eligibility, it will be important to delineate "delimiting" factors indicating which categories are eligible for a SER (all Senate

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<sup>1</sup> <https://apo.ucsc.edu/policy/capm/304.241.html>

faculty? Researchers? Scholars?), and whether, and how, past SER requests, or denials thereof, would disqualify participation in the process.

### **Criteria**

Some members suggested that SER should be automatically triggered if a faculty member's salary falls below some threshold associated with the salaries of other faculty members of the same rank and step through all of the divisions or schools of the same type in all of the UC campuses – law schools and medical schools and business schools excluded. The added benefit to establishing the entire UC as the comparator would be to discourage recruitment among the UCs. Members questioned how, in the context of the SER process, will research, versus teaching, versus service be evaluated, and by whom; as well as how the process would differ for regular and Teaching Professors. CAP notes that as far as research is concerned, it will be critical to clarify which disciplinary criteria of excellence should be used. Members also felt strongly that the process should adequately distinguish between inequities generated systemically by the hierarchy of faculty salaries on this campus and individually, by a faculty member's slower promotion and salary increase rate because of consistent weaknesses in one or two of the three (research, teaching, service) personnel review categories.

### **Comparators**

CAP members agreed that a SER process should not require outside letters or any other form of interpretative criteria, since the process should not be about excellence or academic reputation but about salary (in)equity. Members noted that in relation to salaries, letters are effectively single-point opinion samplings that can vary widely. In lieu of outside letters, members suggested that salary comparisons should be made within and beyond this campus and the UC system (as is clearly necessary for many subdisciplines) and that such comparisons be based, when possible, on productivity and impact.

Most important, CAP looks forward to continuing the Senate-administration partnership in producing a stream-lined SER process for our campus. Thank you for the opportunity to opine.

Sincerely,



Stefano Profumo, Chair  
Committee on Academic Personnel

cc: Sasha Sher, Chair, Committee on Faculty Welfare  
Dard Neuman, Chair, Committee on Planning and Budget  
Kirsten Silva Gruesz, Chair, Committee on Affirmative Action and Diversity  
Senate Executive Committee

January 13, 2023

Patty Gallagher, Chair  
Academic Senate

**Re: Development of a Faculty Salary Equity Review Policy**

Dear Patty,

During its meeting of January 12, 2023, the Committee on Faculty Welfare (CFW) discussed CP/EVC Kletzer's request for feedback on the development of a Faculty Salary Equity Review Policy (SER). Members noted that the current Career Equity Review (CER) addresses inequities in rank and step, but until now, our campus has had no mechanism to address issues of salary inequities. CFW is pleased to see the campus actively moving forward to establish a formal process to address salary inequity issues on our campus.

CFW focused its discussion on the three components highlighted in the request: 1) Eligibility, 2) Criteria, 3) Comparators, and has the following comments and recommendations to offer.

Eligibility

During our review, members noted that salary inequities on our campus exist for many different reasons. Different personnel review trends, low initial salaries upon hire, retention offers of colleagues, and a lack of resources and support for success may all contribute and make it nearly impossible for those suffering from inequities to catch up to their colleagues in the same rank and step. Members raised concerns that some faculty in need of a salary equity adjustment may be less likely to ask for it themselves, and acknowledged that a process in which an individual would have to request an SER and compare themselves to department colleagues may have a cooling effect on department comradery. With all of this in mind, CFW believes that a SER program should be constructed in a way that does not impose additional burden on the faculty, and be straightforward enough so that it can be implemented efficiently. CFW recommends that the SER should be included in the standard personnel review process, and not be a separate action, review, or request. Members agree that the salary of every faculty member undergoing review should be evaluated for equity. This analysis would be done each time a faculty member undergoes review along with the regular evaluation of teaching, research, and service, in order to ensure that salary equity is achieved and maintained. All faculty undergoing personnel review would be eligible and automatically undergo SER.

Criteria

For each personnel review, CFW recommends that the Academic Personnel Office (APO) provide departments with a report of comparable salaries across divisions in the appropriate rank/step/salary scale at UCSC. We envision a detailed (formulaic) prescription for the salary

equity increase based on the salary data that can be easily implemented in a uniform way across divisions and departments. This prescription (exact details to be determined) should focus specifically on the lowest paid faculty, for example those in the lowest quartile. After reviewing the salary report, the department would make an assessment and a recommendation for a salary equity increase if appropriate.

CFW recommends that a discussion of the department's salary analysis be included and required in the departmental letter. This analysis as well as the salary report/data should be included in the file and provided to all reviewing bodies for consideration. If a salary equity increase recommendation is made, then the "Type of Review" noted on the file would include "Salary Equity Review".

### Comparators

Although CFW is gravely concerned with UCSC faculty salary equity in comparison to sister UC campuses and other comparable institutions, members agree that due to the complexity of the issue, equity with outside comparators should be a separate conversation and may require a separate solution. CFW recommends that we should start by addressing salary inequities on our campus through this SER program.

If each personnel review file will undergo a salary equity analysis, there will be no need to request outside letters, and no need to set a SER usage limit. Since the goal is equity, CFW contends that there should be no need for faculty to go above and beyond in order to receive a salary equity review or associated salary equity increase. We believe that equity should be built in, not asked for. If one's salary is inequitable, the process and resulting salary increase should be automatic. We would like to emphasize that individual faculty should not be asked or required to prove anything.

Thank you for the opportunity to provide feedback. We look forward to reviewing a formal proposal for a UCSC Faculty Salary Equity Program in the near future.

Sincerely,



Alexander Sher, Chair  
Committee on Faculty Welfare

cc: Stefano Profumo, Chair, Committee on Academic Personnel  
Dard Neuman, Chair, Committee on Planning and Budget  
Kirsten Silva Gruesz, Chair, Committee on Affirmative Action and Diversity  
Senate Executive Committee



January 17, 2023

Patty Gallagher, Chair  
Academic Senate

**RE: Faculty Salary Equity Review (SER) Policy Development**

Dear Patty,

On January 12, 2023, the Committee on Planning and Budget (CPB) reviewed CP/EVC Kletzer's memo (11/28/22) requesting Senate input to inform the administration's development of a policy for Senate faculty to request a Salary Equity Review (SER). CP/EVC Kletzer's memo proposes a series of questions intended as an outline for a SER program, and asks for initial feedback on key components, including eligibility, criteria, and comparators. Senate feedback will inform a more formal proposal for a SER program.

CPB members very much appreciated the opportunity to comment on such an important proposal at an early stage. CPB members are supportive of a formal SER policy that is formed with the primary goals of what the SER is meant to address (redress) in mind. Members hope for a policy that addresses inequities, implicit and explicit biases, the loyalty tax, and timing-based institutional policies. With those lofty goals in mind, members found that they had more framing questions than they had suggestions for answers to the questions—with one exception: **SER should not be tied to a personnel action—nor should it require outside letters.** What members were unsure about was the administrative burden of the SER, the scope of allowed input, eligibility for SER, appropriate comparison sets, and whether or not salary inequity could be detected programmatically or generalized to apply to more than one person after one finding. I will describe each of these more below.

**Administrative burden:** Having the committee that has the widest understanding of possible salary inequities involved (the Committee on Academic Personnel, or CAP) seems ideal, but would SER push CAP beyond their service capacity? Will implementing SER be a burden on beleaguered department managers—or just on the requesting faculty? Limiting the number of times, or the frequency—of any faculty member's right to ask for SER—perhaps once per major review period or once per half-decade of service—seems necessary, but if SER does not turn out to be a burden, perhaps no such limitation is needed. Perhaps there might be an initial special committee—something on the order of shadow-CAP—that could do preliminary work on requests before they are passed to CAP.

**SER Scope:** Another topic of discussion was making sure faculty could point to personnel policies and practices during their career. For example, did the faculty member get promoted during a period when faculty experienced a salary cut? Did they move up the ranks before the special salary practice? Did they miss more than one of the more generous special salary periods? Were they at UCSC when off-scale salaries were leveled?

**Exclusion from consideration:** Some members felt that some faculty members should be excluded from consideration, and others felt that was a dangerous pathway. For example, the exclusion of someone receiving retention offers or, conversely, excluding faculty who have not received merit raises in their departments could lead to some sticky cases. Members did feel strongly that consideration should be given apart from research and publication record: teaching and service are important factors in appropriate compensation.

**Comparison sets:** Faculty members requesting an SER would likely have a comparison set in mind, though members thought that certain comparators would be much more convincing (UC salaries) than others (private institution salaries). The question of whether comparators should be in similar or different fields

was divisive. Some members felt that market forces make it important to pay members of some fields more, but others felt that was unfair in the face of our similar duties. Many members found the very idea of comparing specific faculty members (or at least their salaries) problematic. Would it be possible to do any of this programmatically? That is, for statistical analysis of faculty salaries to identify outliers? This would address the oft-cited problem of certain classes of faculty being less likely to avail themselves of practices (in the way that some faculty would never go through the trouble of getting an outside offer that would allow them to ask for a lucrative retention offer). If the SER must be initiated by individual faculty members, the guidelines will need to be clear and well-advertised.

**In summary:** It is clear that many details will have to be worked out before SER can be realized. CPB would welcome an opportunity to discuss this again as the policy moves towards fruition.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tracy Larrabee".

Tracy Larrabee, Vice Chair  
Committee on Planning and Budget

cc: CAAD Chair Silva Gruesz  
CAP Chair Profumo  
CFW Chair Sher

**COMMITTEE ON FACULTY WELFARE**  
**Faculty Salary Analysis, April 2018**

To: Academic Senate, Santa Cruz Division

The Committee on Faculty Welfare (CFW) annually reviews faculty salary comparative data and recently finalized its analysis of faculty salaries on the most recent data available, comparing UCSC with the other UC Campuses. The committee's latest analysis was completed in spring 2018. The data used in the analysis correspond to the October 2016 payroll extract in the UC Office of the President Corporate Data Warehouse as provided to CFW on February 2, 2018 by the office of Assistant Vice Provost of Academic Personnel (AVP) McClintock. As in previous years, this data set does not include professional schools, and it does not reflect all 2016-17 personnel actions, nor the July 1, 2017 academic salary plan. The data contained salary information on 7,567 faculty members from all campuses except UC San Francisco, a primarily medical campus. Of these faculty, 1,593 were on the Business, Economics and Engineering (BEE) scale, and 5,974 were on the regular (REG) scale.

In addition to the comparative study across the UC system, this year a central focus of CFW's analysis is salary equity across gender, ethnicity, and academic affiliations within the UCSC campus (CFW did not receive any system-wide data which included gender, ethnicity, and academic affiliations). The data set we used for this analysis reflects UCSC salaries as of the academic year 2017-18, and it includes recent retention reviews data.

The remainder of this salary analysis is structured as follows: we start with a critical review of the Annual Report of Faculty Salary Competitiveness from the Academic Personnel Office.<sup>1</sup> (APO), and make four recommendations for future APO salary competitiveness studies; we then present our equity study, which comprises three sections: (1) ethnicity and gender salary and salary growth gaps; (2) the role and equitability of retention actions as they impact salaries and salary growth; and (3) salary and salary growth equity across academic divisions and departments.

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<sup>1</sup> <https://apo.ucsc.edu/advancement/data-and-reports/index.html>

## EXECUTIVE SUMMARY

**Finding 1:** UCSC salaries continue to lag behind system-wide levels, up to 8.5% for Above-Scale professors on the REG scale. The gap between UCSC median salaries and UC system-wide salaries increased compared to last year, even though the (original, uncurtailed) Special Salary Practice (SSP) was still in place for 2016-17 personnel actions. CFW anticipates that with the drastic changes and reduction in scope for the SSP, salary gaps will continue to grow. The situation is dismal for the top 25% and even worse for the top 10% at a given rank/step, and, when considering cost of living, makes UCSC salaries largely non-competitive even just compared to our sister UC campuses. CFW advises future APO analyses to: (1) Eliminate the misleading and inappropriate use of and comparison to 7-campus medians; (2) Include Above Scale faculty salaries; (3) Factor in estimates of cost of living; (4) Include a comparison to past years' figures.

**Finding 2:** UCSC faculty salaries have a "gender gap" of -10.4%, or \$14,648/yr and an "ethnicity gap" (non-white versus white) of -11.8%, or \$16,683/yr. Faculty at higher ranks and steps and with longer tenure at UCSC are increasingly less "diverse" both in gender and ethnicity, which explains in part the aggregate salary gaps. CFW finds a significant and persistent gender gap at the Assistant Professor rank (5.7% or \$5,655/yr) and at the Full Professor (6-9) rank (4.3%, or \$7,710/yr). Salary growth did not show a significant gender or ethnic bias.

**Finding 3:** CFW's study indicates the highly significant role that retention actions play in affecting overall compensation. Faculty who had a retention review have significantly higher median salaries and annual median salary growth. Given the large gender, ethnicity, and academic affiliation variance in retention actions, salary growth is intrinsically inequitable, for instance disproportionately benefitting male over female faculty members and certain academic divisions and departments and not others. CFW reiterates the recommendation made last year to adopt salary strategies that better reward and compensate meritorious faculty within the normative personnel action path such as an enhanced version of the Special Salary Practice.

**Finding 4:** UCSC exhibits a strong correlation between low average salaries and the representation of female faculty in a given department, but no such correlation exists in salary growth or based on ethnicity (white versus non-white faculty fraction by department); CFW finds that the Arts division has a systematically low promotion rate, resulting in a low salary growth; CFW did not find evidence for promotion growth bias based on gender or ethnicity at UCSC.

## COMPARISON OF UCSC MEDIAN SALARIES TO SYSTEM-WIDE SALARIES

The January 2018 “Annual Report of Faculty Salary Competitiveness”, prepared by the UCSC Academic Personnel Office<sup>2</sup> serves “*to monitor progress toward the two goals outlined in the Joint Task Force Report<sup>3</sup>, namely:*

- 1) *to raise the median off-scale dollar amount at UCSC to the median off-scale amount at the next lowest campus-- then UC Davis-- by July 1, 2009; and*
- 2) *to raise UCSC’s median faculty salary to the UC systemwide (9-campus) median by July 1, 2011. ”* The report subsequently indicates that “*Since the 2008 Task Force Report, “off-scale dollars” has become increasingly unreliable as a measure of salary competitiveness ”* and that, as a consequence the report “*now focuses on overall faculty salary median, with the understanding that the variation between campuses is a result of differing practices and mechanisms to increase the off-scale components. ”*

Additionally, the report specifically indicates (despite its title) that it “*does not address issues of faculty salary market competitiveness*”, including not addressing the issue of cost of living, which was a core focus of CFW’s analysis last year. The report separately considers the Regular scale (REG) and the Business, Engineering, Economics (BEE) Scale.

CFW respectfully advises future salary analysis to:

1. **Eliminate the misleading and inappropriate use of and comparison to 7-campus medians.** There is no rationale at all in excluding UCLA and UCB from salary comparison, as already emphasized in CFW’s 2016-17 report. First, it is important to note (as also noted in CFW’s Faculty Salary Analysis last year<sup>4</sup>) that both UCLA and UCB are coastal/city campuses, with cost of living similar (and, in fact, by all three measures considered by CFW’s analysis last year, *lower!*) to Santa Cruz. Second, our campus systematically uses cross-campus equity (including UCB and UCLA) as metric for the UC-wide system to aspire to (e.g., non-resident student enrollments, re-benching, student aid, admissions standards, etc.). Third, Senate (Senate Executive Committee and CFW) reports commenting on and assessing the Special Salary Practice/Merit Boost Plan have since inception (Senate-Administration Task Force on Faculty Salaries Report, September 10, 2008) insisted on the need to pursue the 9-campus median as a necessary goal of the program. CFW reiterates that continuing to offer comparisons to 7-campus medians is misleading and inappropriate, and should be eliminated from future analysis and disregarded in evaluating the findings of this year’s APO faculty salary study.
2. **Include Above Scale faculty salaries.** Approximately 8.5% of all Senate faculty are Above Scale, with similar numbers at other UC campuses. These faculty are obviously a very active and important component of our faculty. There is no rationale at all for factoring out these faculty members based on the fact that their salaries are Above Scale, especially in view of the fact that a very small fraction of salaries have no off-scale

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<sup>2</sup> UCSC Academic Personnel Office Annual Report of Faculty Salary Competitiveness, January 2018

<sup>3</sup> Senate-Administrative Task Force on Faculty Salaries Report, September 10, 2008

<sup>4</sup> Committee on Faculty Welfare Faculty Salary Analysis Academic Senate Report, January 2016

compensation, making any reference to on-scale salaries fairly meaningless. We strongly urge future APO studies to include above-scale salaries.

3. **Include estimates of cost of living.** A study titled “Report of Faculty Salary Competitiveness” that explicitly mentions that it does not “address issues of faculty salary market competitiveness [and] cost of living” is of very limited use. CFW is of the opinion that any meaningful and useful (to both faculty members and the administration) faculty study must include an assessment of cost of living, as critical decisions such as new hires and retentions obviously do. There is no merit or usefulness in comparing dollar-to-dollar salaries across campuses where cost of living differs by up to around 30%, the difference between cost of living in Santa Cruz and Merced<sup>5</sup>.
4. **Include a comparison to past years’ figures:** the APO analysis fails to compare faculty salary gaps between UCSC and UC system-wide medians now versus past years.

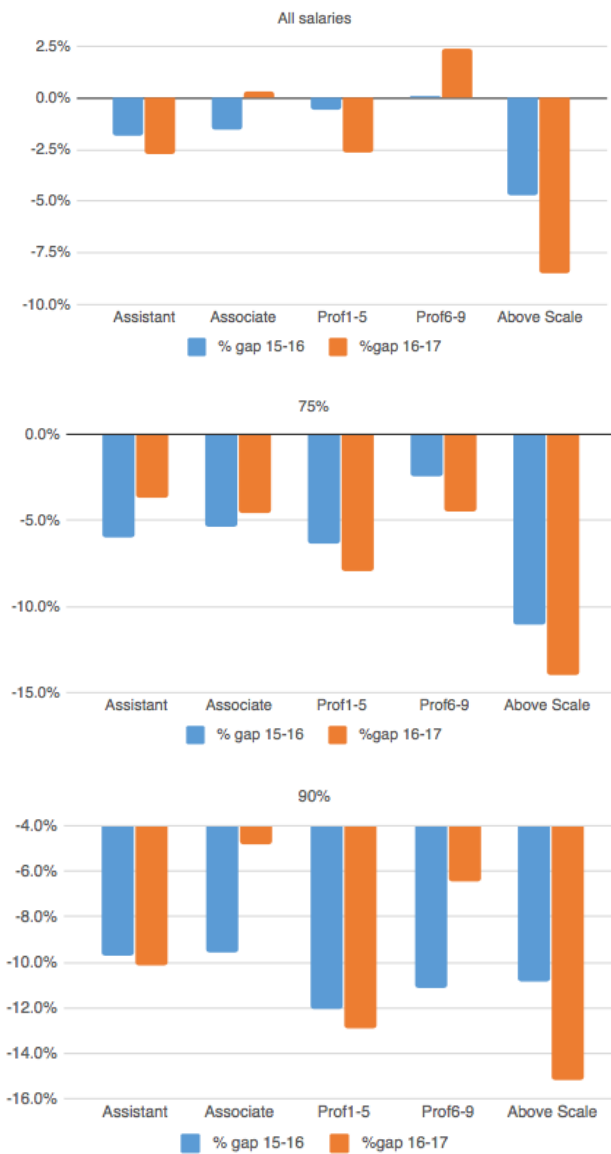
CFW decided to address some of the shortcomings listed above in the present section of our salary analysis. Figure 1 focuses on the REG scales, and compares the median salary gaps at given ranks and steps between UCSC and UC-system medians. Unlike what the APO study states, gaps are larger than 3% (the gap for above-scale faculty is at 8.5%, or almost \$17,000). Additionally, with the exception of Associate and Professor 6-9, the gap between UCSC and UC-wide median salaries is widening, even though the Special Salary Practice (SSP) was still in place for 2016-17 personnel actions. CFW anticipates that with the drastic changes and reduction in scope for the SSP, salary gaps will continue to grow (as CFW’s study last year, comparing historical trends before and after the institution of the SSP at UCSC had predicted).

The situation is markedly worse with the high-end salaries (75th and 90th percentile, corresponding to the top 25% and 10% salaries at a given rank/step). We note that none of these salary comparisons include cost of living, and that our analysis last year indicated that including cost of living places UCSC salaries gaps at the 10% or greater level. UCSC salaries therefore continue to be not competitive with salaries at other UC campuses, and the drastic reduction of the scope of the SSP goes in the opposite direction to addressing this critical strategic issue.

Fig.2 shows the same analysis for the BEE scale. Here the trend compared to the previous year is not as bad, but salary gaps continue to exist, especially above scale and for the higher percentiles.

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<sup>5</sup> Committee on Faculty Welfare Faculty Salary Analysis Academic Senate Report, January 2016



**Figure 1: Comparison between 2015-16 (blue) and 2016-17 (orange) median salary gaps for UCSC versus UC system-wide medians at a given rank/step, for all salaries (top), the highest 25% salaries at a given rank/step (middle) and the highest 10% salaries (bottom) for the REG scale**

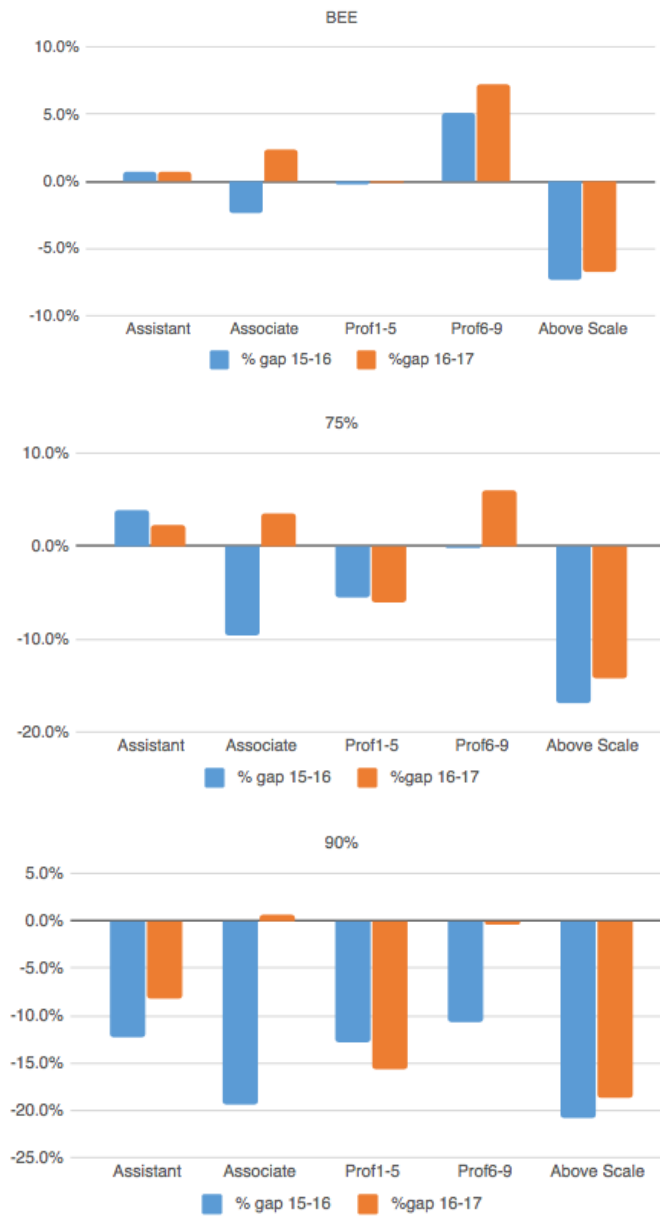


Figure 2: As in fig.1, but for the BEE scale



## **SALARY EQUITY STUDY: (1) ETHNICITY AND GENDER**

CFW analyzed data provided by the APO on November 29, 2017<sup>6</sup>, and December 7, 2017<sup>7</sup>, which included data on ethnicity, gender (M/F), initial hire date and rank/step, initial hire salary, 2017-18 rank, step and salary, departmental affiliation, and an (incomplete) list of 141 successful-only retention reviews, limited to retentions from 2000-01 onward. The data referred to a total of 580 faculty members.

With the intent of analyzing possible salary inequities on the basis of ethnicity, CFW simplified the ethnicities to six categories: Unknown (16), Native American (9), Black (18), Latino (53), Asian (140), and White (380); CFW also considered the breakdown of White (380) versus non-White (the remaining 200) faculty members.

Considering all salaries, thus the aggregate of REG and BEE salary scales, CFW finds that as of 2017-18 UCSC faculty salaries have a “gender gap” (defined as the difference between the average salary of female faculty members minus the average salary of male faculty members) of -10.4%, or \$14,648/yr; CFW also finds that UCSC faculty salaries have an “ethnicity gap” (defined as the difference between the average salary of non-white faculty members minus the average salary of white faculty members) of -11.8%, or \$16,683/yr (see figure 3).

Aggregate salary gaps do not compare faculty salaries for faculty members with the same length of appointment or rank/step. The demographics of UCSC faculty is highly skewed, as we illustrate in figures 4 and 5. Figure 4 illustrates the fraction, at a given rank/step, of non-white (blue columns) and of female (red columns) faculty members. Figure 5 shows the fraction, at a given rank/step, of white male faculty members. The figures portray the fact that faculty at higher ranks and steps and with longer tenure at UCSC are increasingly less “diverse” both in gender and ethnicity. This explains in part the aggregate salary gaps. The trend of growing diversity at lower faculty ranks indicates that campus efforts to increase diversity are delivering statistically significant results.

Breaking down the ethnicity and gender gap by rank/step, CFW found that there is no significant ethnicity salary gap (with the possible exception of the Associate professor rank), while there is a significant, persistent gender gap, especially, and worrisomely, at the Assistant Professor rank (5.7% or \$5,655/yr) and at the Full Professor (6-9) rank (4.3%, or \$7,710/yr). CFW strongly suggests further study of this gender gap, especially at junior ranks.

A critical measure of salary equity is salary growth. CFW studied (figures 8 and 9) the average annualized salary growth at a given rank/step for, again, white versus non-white faculty (fig. 8) and for female versus male faculty (fig. 9). CFW finds that salary growth is lower for the Assistant, Associate, and Full (5-9) Professor ranks for non-whites compared to whites; CFW also finds that female faculty salaries, on average, grow on par with male faculty salaries, with the possible exceptions of the Associate and Above Scale Professor ranks.

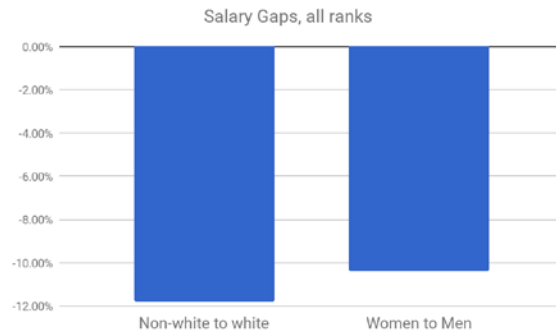
Finally, fig. 10 and 11 break down average salaries and average salary growth at given ranks and

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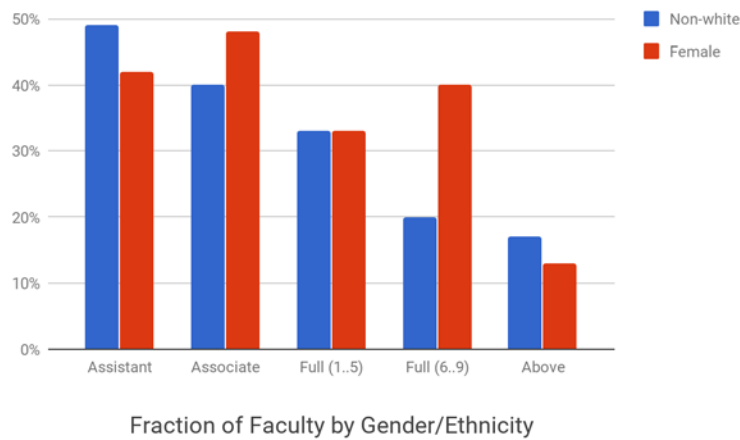
<sup>6</sup> McClintock to Profumo, 11/29/17, Re: CFW: Data Request

<sup>7</sup> De La Garza to Profumo, 12/07/17, Re: CFW Data Request – Additional Info

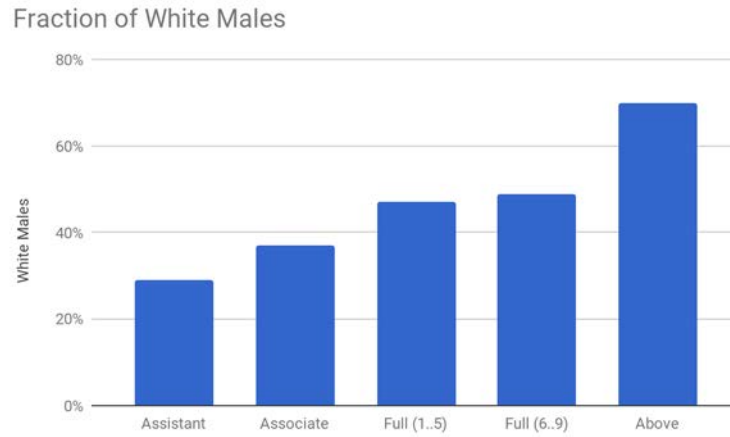
steps by ethnicity. CFW did not identify statistically significant correlations between ethnicity and either salary or salary growth at a given rank/step.



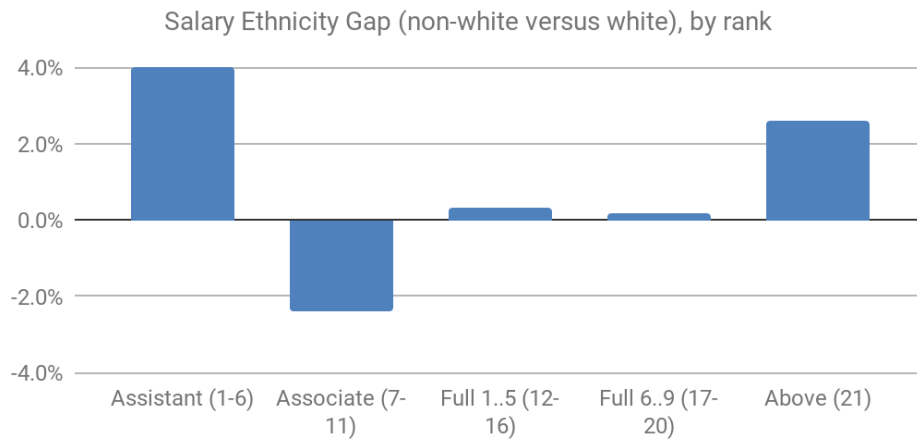
**Figure 3: Aggregate faculty salary “gaps” by ethnicity (average non-white minus white faculty salaries at all ranks and steps) and by gender (average female minus male faculty salaries at all ranks and steps)**



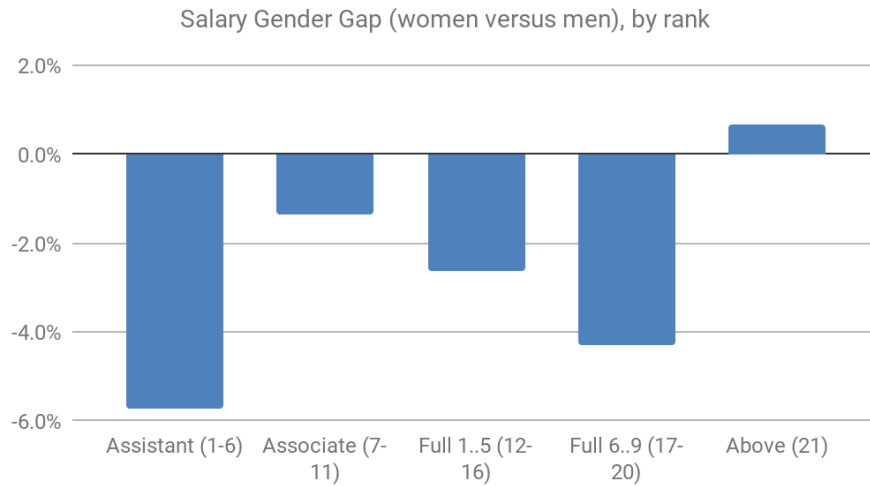
**Figure 4: Fraction of non-white (blue columns) and of female (red columns) faculty members at a given rank/step (UCSC, 2017-18)**



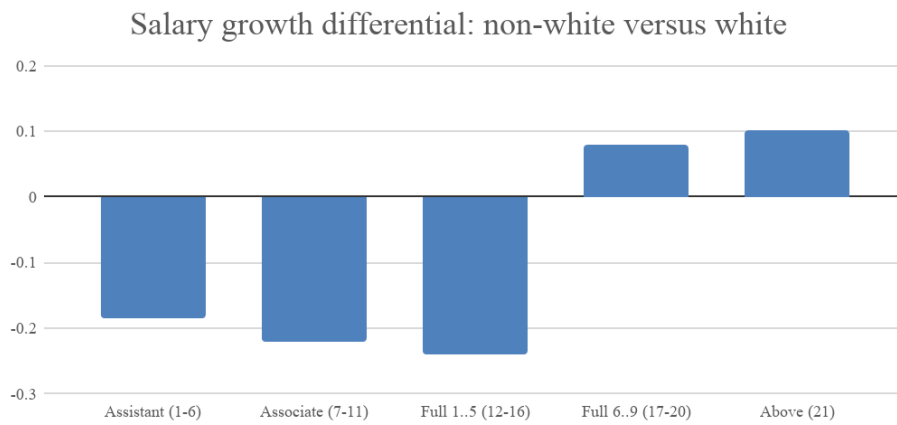
**Figure 5: Fraction of white male faculty members at a given rank/step (UCSC, 2017-18)**



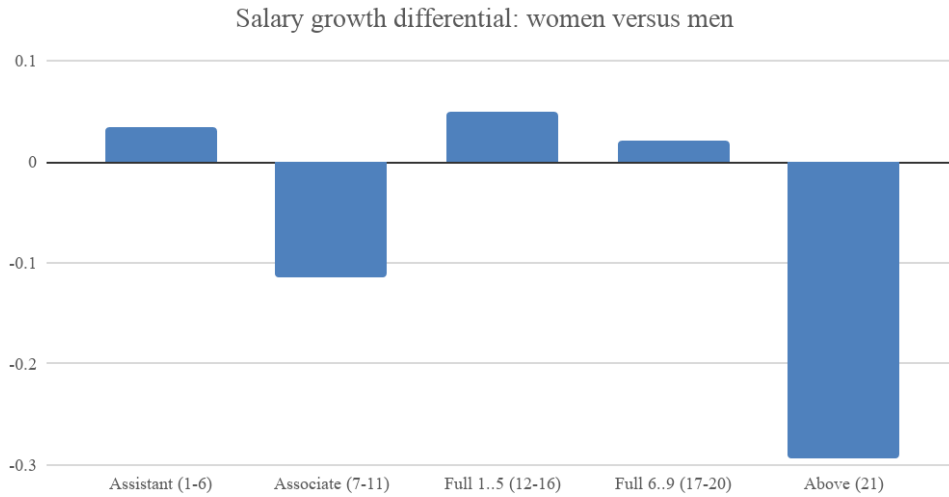
**Figure 6: Salary “ethnicity gap” (non-white versus white faculty members) at a given rank/step (UCSC, 2017-18)**



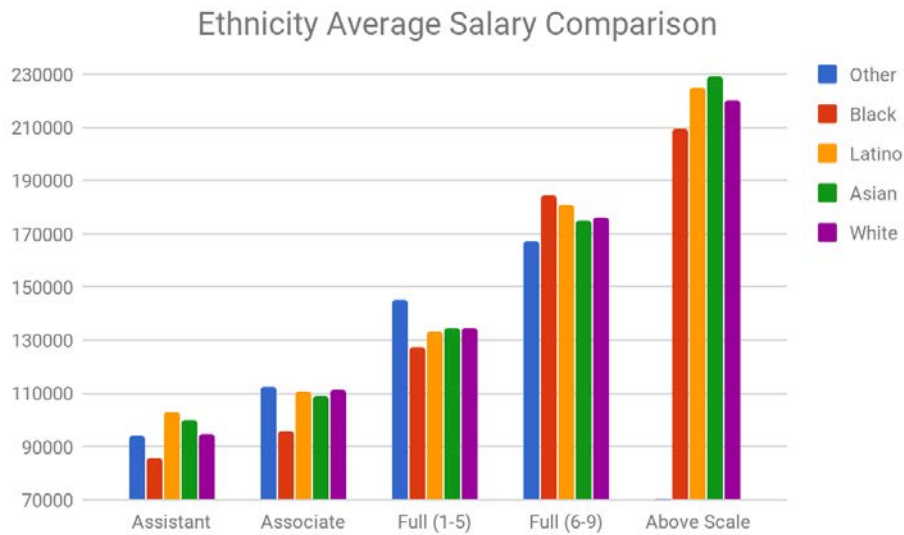
**Figure 7: Salary “gender gap” (female versus male faculty members) at a given rank/step (UCSC, 2017-18)**



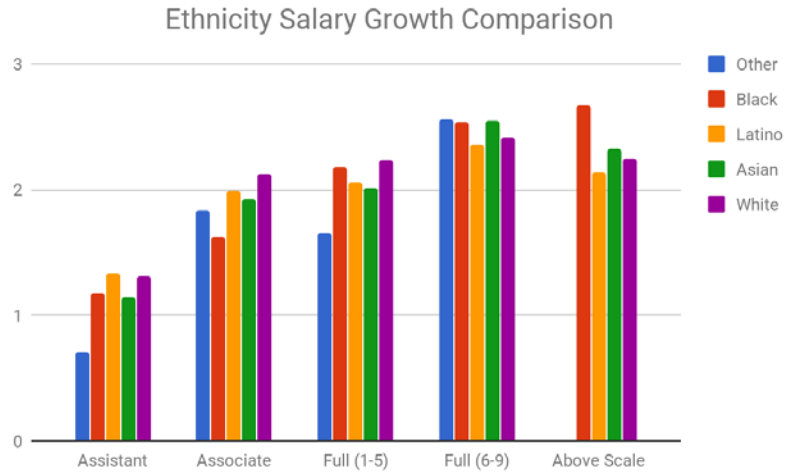
**Figure 8: Salary growth differential based on ethnicity (non-white versus white faculty members) at a given rank/step (UCSC, 2017-18)**



**Figure 9: Salary growth differential by gender (female versus male faculty members) at a given rank/step (UCSC, 2017-18)**



**Figure 10: Average salary by ethnicity, at a given rank/step (UCSC, 2017-18)**



**Figure 11: Average salary growth by ethnicity, at a given rank/step (UCSC, 2017-18)**

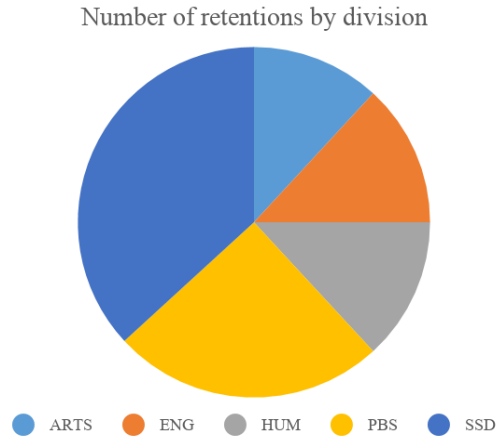
## **SALARY EQUITY STUDY: (2) RETENTION ACTIONS**

CFW received data from APO on retention reviews which were limited to (i) reviews occurring on or after the academic year 2000-01, and (ii) successful reviews (i.e. reviews that did not lead to separations). Through the anonymous faculty ID available on the retention review database, CFW correlated retentions with a variety of metrics, including academic division (fig.12). CFW notes that the number and rate of retention reviews differ greatly among divisions. For example, the ratio of the total number of retention reviews by number of affiliated faculty in a given division varies from 9.3% in the Humanities to more than double, 19.0%, in the Social Sciences (fig.13). Additionally, CFW finds that significantly more male faculty (52 retention reviews since 2000-01) than female faculty (27 retention reviews since 2000-01) have had retention reviews recently, even expressed in number of retention to total number of faculty members of a given gender (14.5% versus 12.2%, see fig.14).

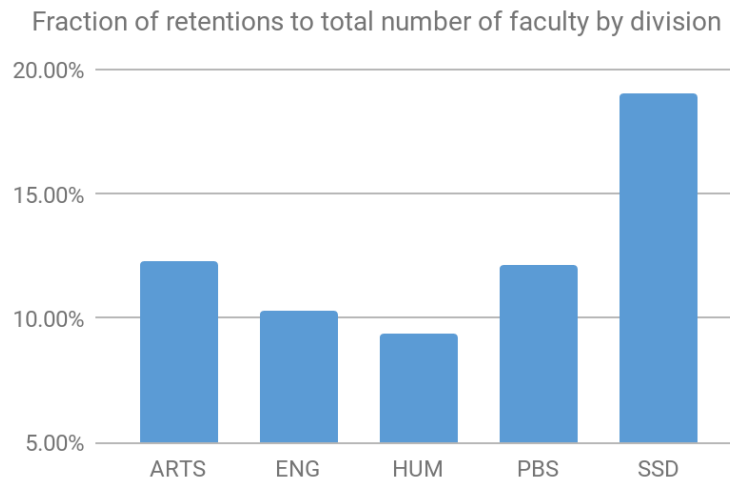
Faculty who had a retention review have significantly higher median salaries (fig. 15) and annual median salary growth (fig .16) than the figures associated with any ethnic group on campus, and higher median annual salary growth than faculty affiliated with any division (fig. 17). Finally, CFW finds a very high correlation between the fraction of faculty members who had a retention review in a Department, by Department, and the annual average salary and average salary growth (fig. 18): in other words, the frequency of retention actions in a Department is strongly correlated with how quickly average salaries grow, and how large salaries are in that Department.

CFW's study indicates that the very significant role that retention actions have in affecting overall compensation and salary growth is largely and intrinsically inequitable, as it disproportionately benefits (i) male over female faculty members, (ii) certain academic divisions and departments and not others, and (iii) it bypasses the comprehensive personnel review criteria for rank and salary growth that other faculty are subject to. CFW reiterates the recommendation made last year to adopt salary strategies that better reward and compensate meritorious faculty *within* the normative personnel action path. One such possible strategy is an enhanced version of the Special Salary Practice, which comparison with our sister UC campuses indicates is necessary both to keep UCSC salaries merely in line with growth at other campuses, and to fill the gap between UCSC and UC-system-wide salaries at the highest percentiles at a given rank/step (see fig.1 and 2 above).

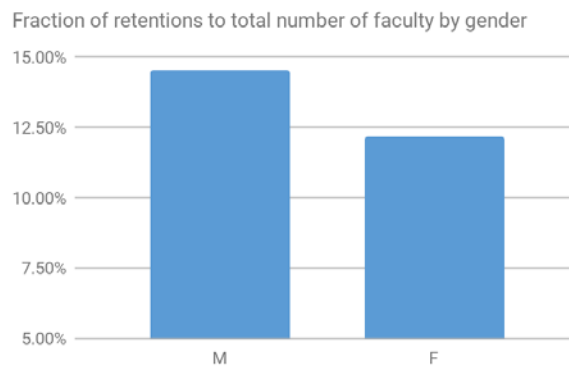
Retention actions are extremely expensive, in terms of (i) time faculty members spend in seeking external offers, (ii) resources needed to match external offers, (iii) resources needed to replace faculty members who decide to leave UCSC. An aggressive salary practice that better rewards high-performing faculty would both have the beneficial effect of boosting faculty morale, and of reducing the desire of faculty to seek external offers to secure a retention action.



**Figure 12: Number of retentions (2000-01 to 2017-18) by division**



**Figure 13: Fraction of retentions to number of faculty (2000-01 to 2017-18) by division**

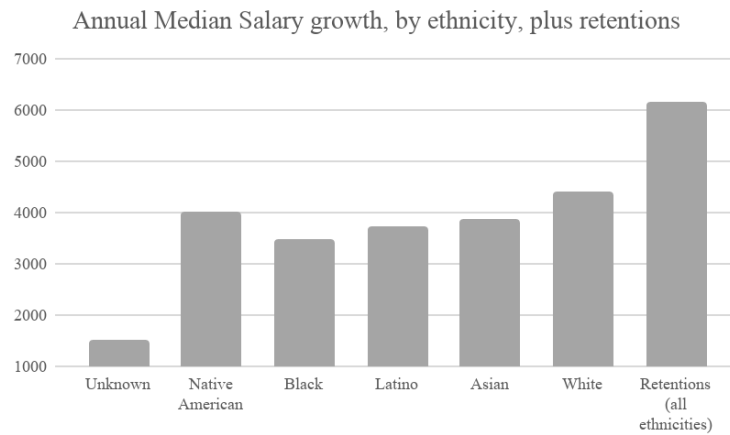


**Figure 14: Fraction of retentions (2000-01 to 2017-18) by gender**





**Figure 15: Median salary by ethnicity, plus median salary for faculty (of any ethnicity) with a retention review**



**Figure 16: Annual median salary growth by ethnicity, plus retentions**

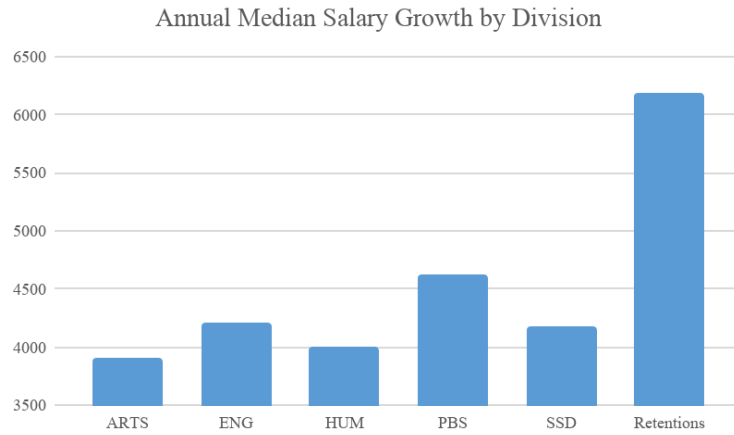


Figure 17: Annual median salary growth by division, plus retentions

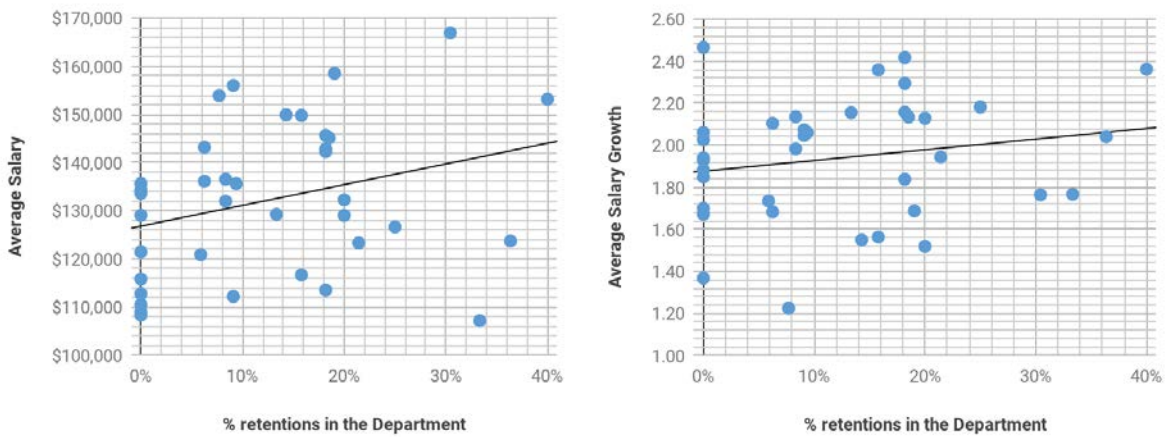
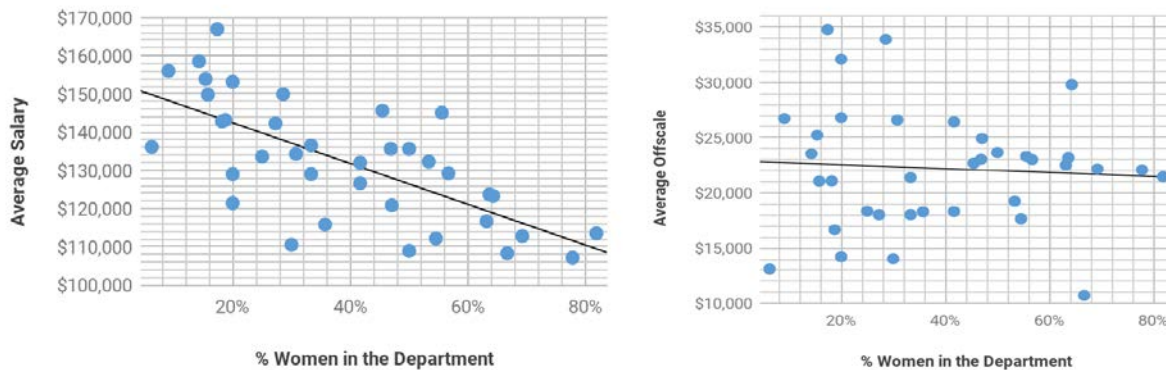


Figure 18: Correlation between the fraction of faculty members who had a retention review in a Department, by Department, and the annual average salary (left) and average salary growth (right)

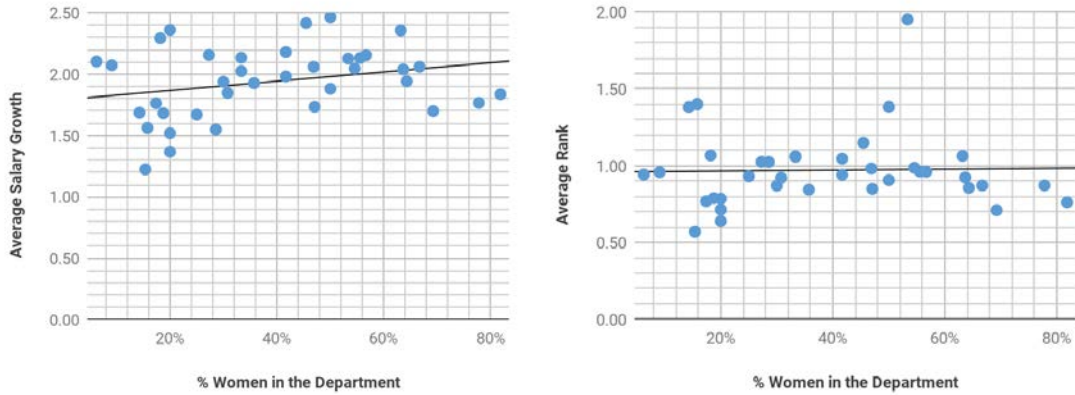
### SALARY EQUITY STUDY: (3) SALARY AND SALARY GROWTH EQUITY ACROSS ACADEMIC DIVISIONS AND DEPARTMENTS

In this section, we focus on salary and salary growth equity at the divisional and departmental level. First, we show in fig. 19 the correlation between the fraction of female faculty in a department and the average salary (left) and average off-scale (right) in that department. While the off-scale has a weak correlation with gender representation, the correlation with average salary is striking: departments with the largest average salaries tend to have fewer female faculty. CFW notes that this likely correlates with what shown in fig. 4 above - female faculty on campus tend to be over-represented at more junior ranks/steps than their male colleagues. To further inspect the finding of figure 19, left, we researched whether there is a correlation at the departmental level between gender representation and salary growth or rank advancement (fig. 20). Our analysis does not find any evidence for such a correlation.

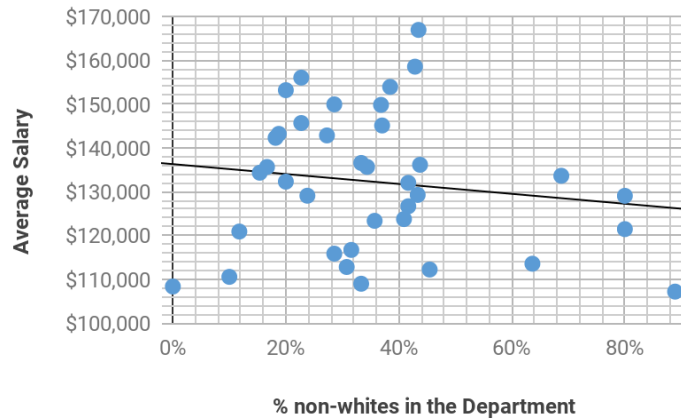
Fig. 21 shows that there is a weak correlation between ethnicity (as represented by the fraction of non-white faculty members) and salaries.



**Figure 19: Correlation between the fraction of female faculty in a Department, by Department and the average salary (left) and average off-scale compensation (right).**



**Figure 20: Correlation between the fraction of female faculty in a Department, by Department and the annual average salary growth (left) and average rank growth (right).**



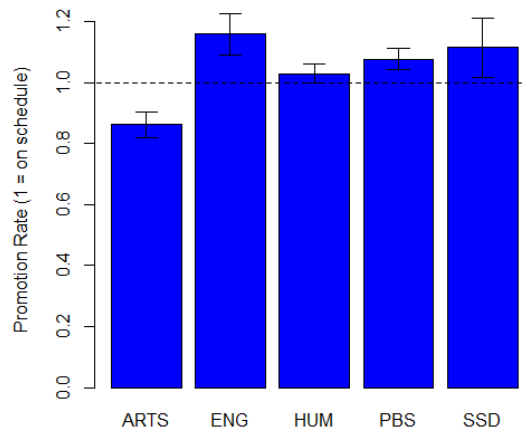
**Figure 21: Correlation between the fraction of non-white faculty members in a Department, by Department, and the annual average salary (aggregate for all ranks/steps)**

In addition to examining the above factors by salary growth, CFW also examined these factors in comparison to promotion growth. This measure converts the rank and steps to their time (in years) equivalence as shown below. According to this measure, a PG of 1 indicates the standard progression through the ranks, while a value above 1 indicates acceleration with respect to the standard progression.

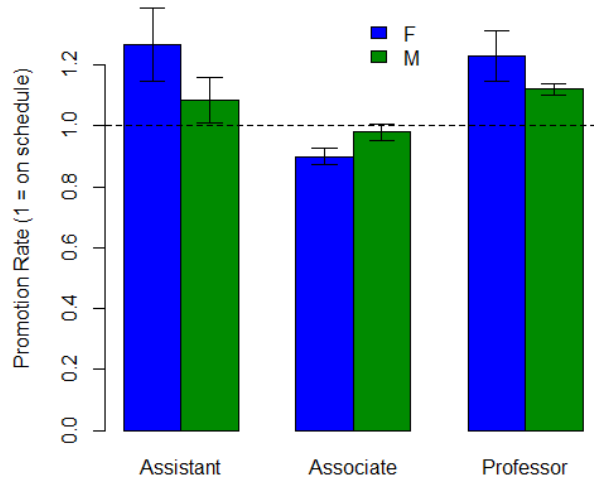
$$PG = \frac{\text{time equivalence of rank/step (years)}}{\text{years since degree}}$$

Assist 1	Assist 2	Assist 3	Assist 4	Assist 5	Assist 6	Assoc 1	Assoc 2	Assoc 3	Assoc 4	Assoc 5	Full 1	Full 2	Full 3	Full 4	Full 5	Full 6	Full 7	Full 8	Full 9	Above Scale
1.0	3.0	5.0	7.0	9.0	11.0	9.0	11.0	13.0	15.5	18.6	15.5	18.5	21.5	24.5	27.5	30.5	33.5	36.5	39.5	42.5

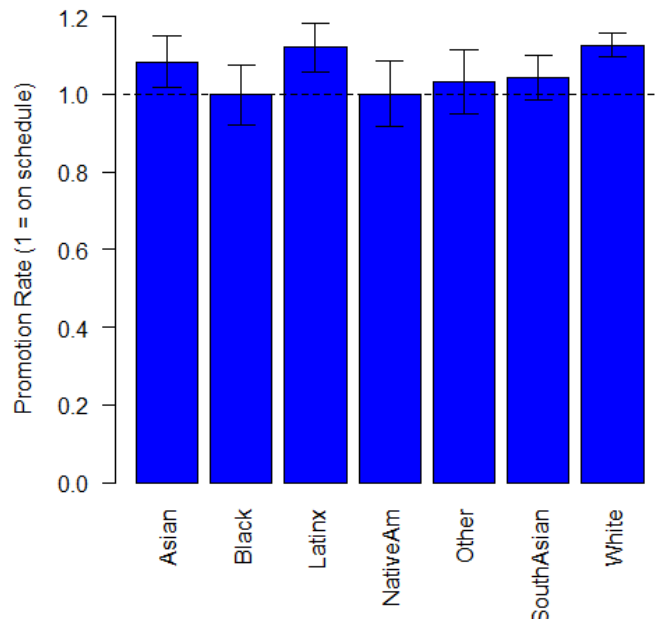
In general, promotion growth is roughly the same across divisions and slightly above 1, with the major exception of the Arts Division, which has an overall lower promotion rate (Fig. 25). Similarly, promotion and gender do not show major differences, even when broken down by rank (Fig. 26). The overall slower promotion rate at the Associate level is likely due to some faculty spending additional time at Associate Professor, Step 5. We see similar result by ethnicity; promotion growth is fairly equivalent (Fig. 27).



**Figure 25. Promotion by division. Dotted line = on scale. Error bars indicate standard error.**



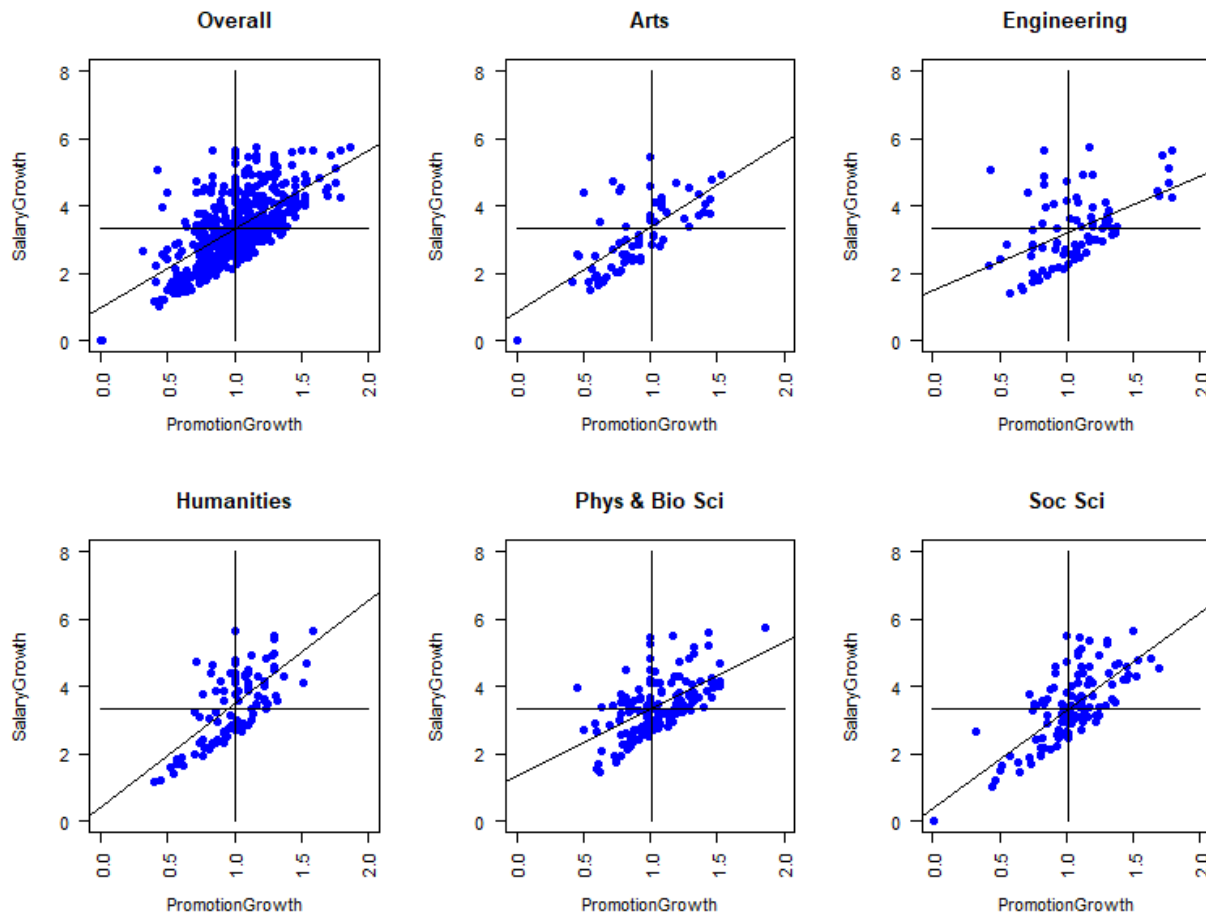
**Figure 26. Promotion Growth by Gender and Rank. Error bars indicate standard error.**



**Figure 27. Promotion Growth by Ethnicity. Error bars indicate standard error.**

A final way to evaluate faculty salaries is to compare salary growth with promotion growth. In this measure, we expect a positive correlation where higher promotion rates correspond to higher salary growth. While this is broadly true, the relationship does vary somewhat by division (Fig. 28). Two divisions, Engineering and Physical and Biological Sciences show slightly shallower

slopes that suggest more faculty being promoted faster than their salary growth, though the high degree of variation makes any strong conclusions tentative.



**Fig 28. Promotion Growth by Salary Growth.** The top left panel shows the data for the university overall where 1 dot = 1 faculty member. In all panels the horizontal and vertical lines show the median values for the university as a whole. Diagonal lines are linear regression lines fitted to each subset of the data (in all cases  $p < 0.01$ ,  $r > 0.8$ ).

CFW notes that all data shown in this analysis are available upon request.

Respectfully submitted;  
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Stefano Profumo, Chair

May 4, 2018

## Report on Faculty Salary Equity at the University of California, Santa Cruz

October 2018

This report provides an update to the January 2015 “Report on Faculty Salary Equity at the University of California, Santa Cruz,” which was based on 2013-14 data. This most recent analysis was based on 2017-18 rank, step, and salary data of faculty who were on the roster as of July 1, 2017. Data on gender, race/ethnicity, departmental affiliation, and initial hire date and salary were also included. Faculty paid on the fiscal year scales were excluded from all analyses. Data of faculty paid on the regular (REG) and Business/Economics/Engineering (BEE) scale were analyzed separately.

The focus of this study is on equity with respect to gender, race/ethnicity, and department across the campus, with an emphasis on monitoring changes since the 2015 study. We don’t here provide a comparison across the UC system, which has been addressed in the Academic Personnel Office’s January 2018 “Annual Report of Faculty Salary Competitiveness,” and by the “Faculty Salary Analysis” by the Committee on Faculty Welfare (CFW) submitted to the Academic Senate, Santa Cruz Division in April 2018. Following the 2012 CFW analysis and our 2015 study, we considered two measures of equity: promotion growth, or the rate of advancement through the ranks relative to the normative time implied by the rank and step scale; and salary growth, which represents an annualized percentage growth, in addition to current salary.

In 2015 we found that there were some observable differences in promotion growth and salary by gender and race/ethnicity, and that these differences were related to academic department/discipline. In the current study we found no effects of gender or race/ethnicity on promotion growth before considering department, but we did find some salary differences, which again were related to department. It is important to note that this statistical analysis does not provide an answer as to why there are differences by department. We speculate on a few possibilities, and we provide some recommendations on moving towards improved equity.

### Promotion Growth

Two measures of “Promotion Growth” were considered. Both indicate the actual rate of promotion relative to the normative rate implied by the rank and step scales after converting rank/step to the equivalent number of years since earning highest degree where:

Assistant Professor, Step 1=1 year; 2=3; 3=5; 4=7; 5=9; 6=11;  
Associate Professor, Step 1=9 years; 2=11; 3=13; 4=15.5; 5=18.5;  
Professor Step 1=15.5 years; 2= 18.5; 3=21.5; 4=24.5; 5=27.5; 6=30.5; 7=33.5; 8=36.5; 9=39.5; and  
Above Scale=42.5.

Because we were interested in growth over time, faculty who had earned their highest degree three years prior to July 1, 2017 or less were excluded from the calculations.

*Promotion Growth over Years since Degree (PG1)*

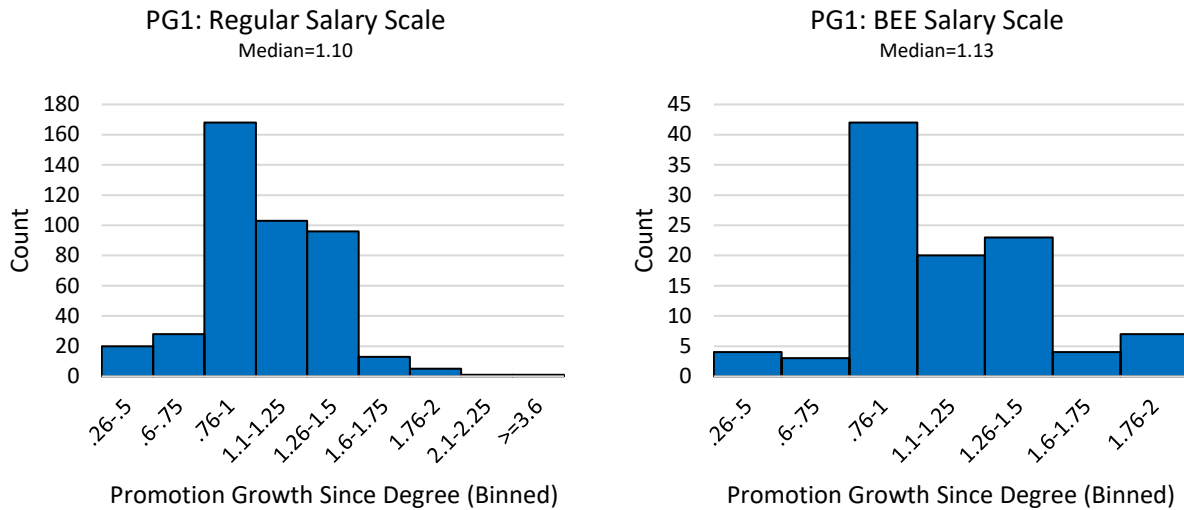


The first indicator, PG1, is the normative number of years it takes to achieve each rank and step from the time of highest degree earned, divided by the actual number of years taken:

$$PG1 = \frac{\text{time equivalence of rank\&step(years)as of July 2017}}{\text{years since degree}}$$

This approach assumes that time spent on other jobs or in post-docs prior to being hired at UCSC is captured by the rank/step at initial hire (e.g., a faculty hired at Assistant Professor Step 3 graduated about 5 years prior). A promotion growth factor of 1 represents “normal” progression through the ranks and steps.

The median promotion growth since degree (PG1) was 1.1 and 1.13 among REG and BEE scale faculty respectively. This was nearly identical to the 1.1 (REG) and 1.17 (BEE) median rates among the July1, 2013 faculty.



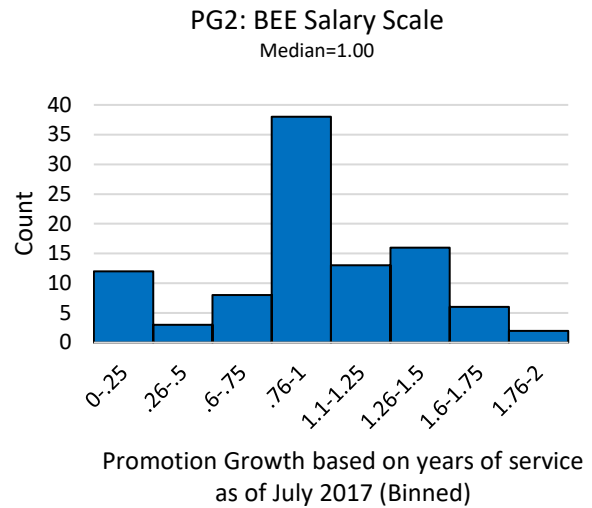
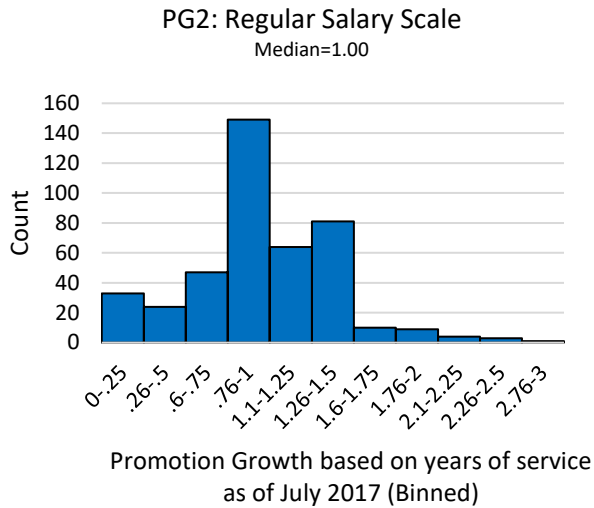
#### Promotion Growth over Years of Service (PG2)

A second indicator of promotion growth, PG2, uses the same normative number of years to rank/step since degree, minus the equivalent years to rank/step at the time of hire, divided by the number of years of service:

$$PG2 = \frac{\text{time equiv. of rank \& step July 2017} - \text{time equiv. of rank \& step at hire}}{\text{years of service}}$$

While PG1 measures the whole career, PG2 focuses only on advancement while at UCSC.

Among the 2017-18 faculty, the median promotion growth since initial hire was 1.0 for both REG and BEE scale faculty, compared to 1.0 (REG) and 1.09 (BEE) among 2013-14 faculty.



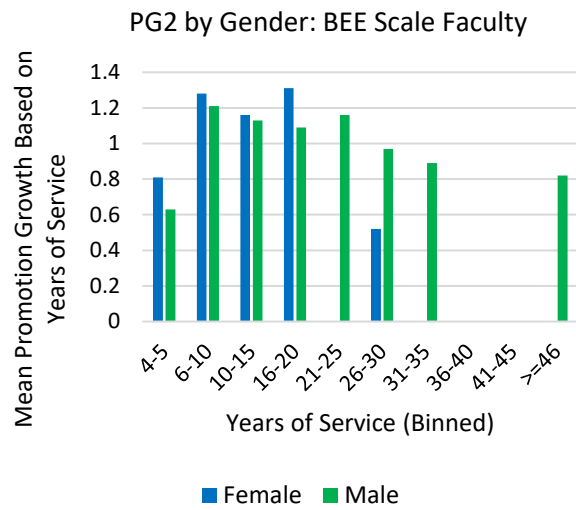
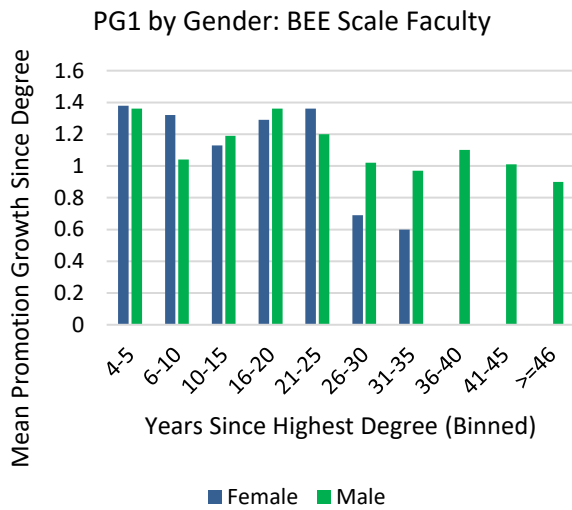
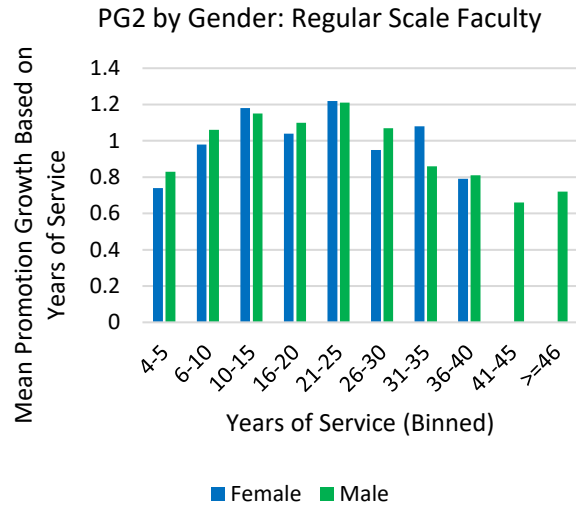
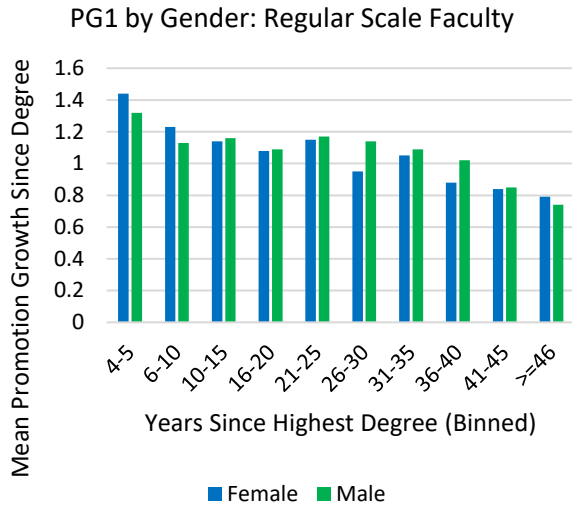
The slightly higher median PG1 relative to PG2 across both REG and BEE faculty and across both years of the study indicates that the average step at hire is somewhat higher than the number of years implied by the steps, while the “average” rate of promotion while at UCSC is consistent with the steps – half of the faculty were promoted at the standard rate of progression through the ranks or faster while half were promoted more slowly.

#### *Promotion Growth by Gender*

In our 2015 study we found that before taking department into account, women on the REG scale had significantly lower average promotion growth since earning their degrees (PG1) than men on the REG scale, but that there were no gender differences in promotion growth for years of service (PG2). We observed similar patterns among faculty on the BEE scale, which did not reach statistical significance because of small and unequal cell sizes.

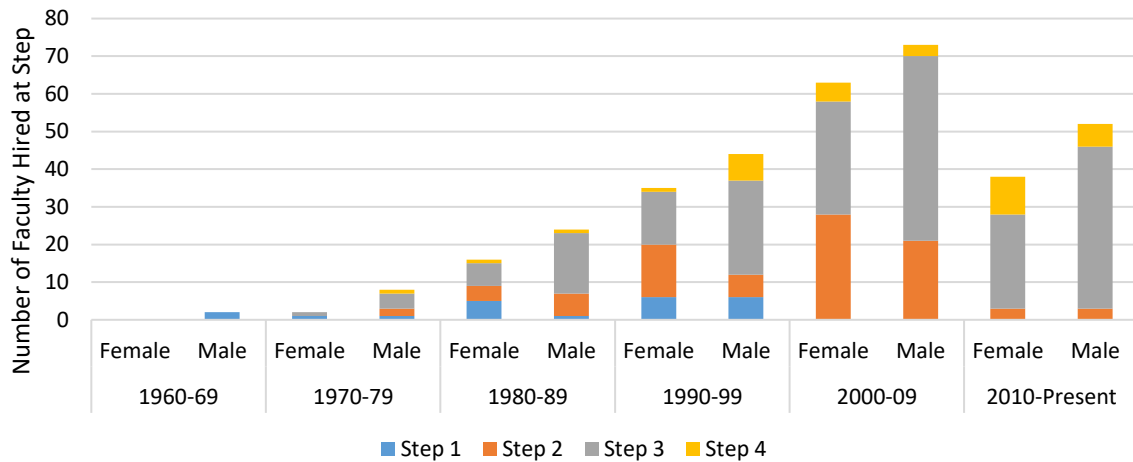
At the time we hypothesized that the difference between the two measures of promotion growth was related to gender differences in the initial hire step rather than rates of promotion while at UCSC. We also observed that the gender difference we did find was related to a faculty member’s department, with some departments having higher average rates of promotion growth than others.

In the present study we again examined both measures of promotion growth by gender for faculty on the REG and BEE scales. While we found some variability across years since degree and years of service, linear regression analyses found no significant gender differences on either measure of promotion growth for faculty paid on either scale, even before taking department into account, suggesting improved gender equity with regard to step at hire.



To confirm this we examined step at hire for our current faculty members who were hired at the assistant professor level. As the following graph illustrates, hiring trends by gender have indeed differed over time. In the decades prior to 2010, higher proportions of women were hired at lower steps relative to men. In the most recent decade, this trend has shifted, with a more equal distribution of step at hire between men and women.

### Regular Scale Faculty Step at Hire and Gender (Assistant Professor Rank)



Linear regression predicting step at hire from hire year and gender for faculty hired at the Assistant Professor level confirm this relationship. This analysis found that hire year, gender, and the interaction between hire year and gender were all statistically significant ( $p < .05$ ). Among the current faculty, men and faculty hired more recently had a higher average initial step at hire, while the interaction reflects the recent positive improvement in gender equity.

#### *Promotion Growth by Race/Ethnicity*

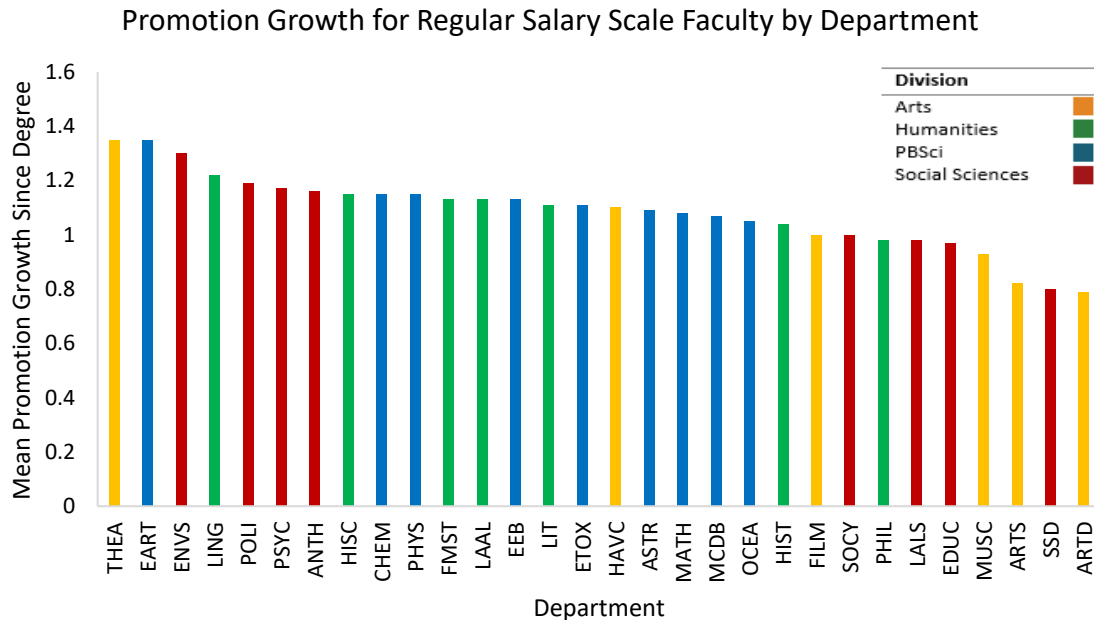
In our current study, the relationship between race/ethnicity and promotion growth was also evaluated using linear regression analysis, comparing white, Asian, and underrepresented faculty of color before taking department into account. Among both REG and BEE scale faculty, we found no significant relationships between race/ethnicity and promotion growth, either for years of service or for years since degree ( $p > .05$ ).

Comparatively, the 2015 analysis did find that REG scale underrepresented faculty of color advanced significantly more slowly through the ranks than white faculty when department was not considered. The lack of a significant relationship in the 2017 analysis suggests that gaps among more recently hired faculty are smaller or fewer than among those who recently separated.

#### *Promotion Growth by Department*

Prior analyses by the Committee on Faculty Welfare (CFW), as well as our 2015 study, found that promotion growth varied by department. We examined this relationship again in our 2017 analysis, and we continue to see differential promotion growth since degree by department. The graph below indicates mean promotion growth since degree (PG1) by department for regular scale faculty (See Appendix for Department codes). PG1 ranges from .8 in Art to 1.35 in Theater Arts and Earth & Planetary Sciences. With the exception of Theater Arts, which may be influenced by one extreme case, most departments in the Arts Division experience lower than average promotion growth relative to departments in other divisions. Departments within the Social Sciences Division are split between higher

than average and lower than average promotion growth since degree, while departments in the Physical and Biological Sciences Division and the Humanities Division fall towards the midpoint.



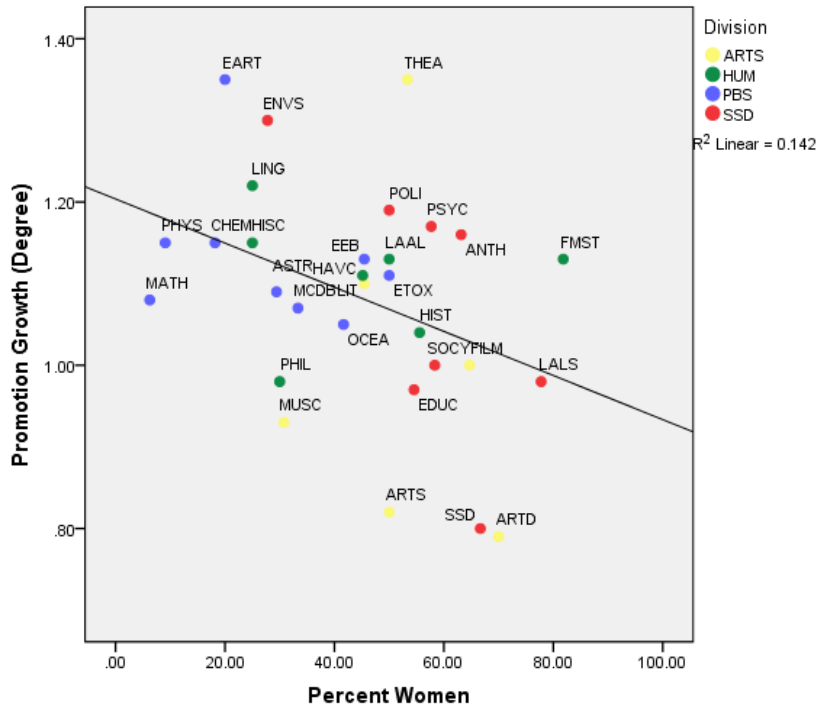
To examine this relationship in more detail, a linear regression was fit to predict each of the promotion growth factors from faculty members’ department, gender, and race/ethnicity. Because of small sample sizes for some races/ethnicities, race/ethnicity was grouped into three categories: Underrepresented minority, Asian, and White. Regular salary scale and BEE salary scale faculty were modeled separately.

Linear regression results confirm the correlation between department and promotion growth since degree for regular and BEE scale faculty. Department affiliation partially explains the average differences in promotion growth. For example, compared to Literature (the reference category), faculty in Art had lower average promotion growth since earning a degree, while faculty in Earth Sciences had higher than average promotion growth (See Table 1). Department did not predict promotion growth based on years of service for regular or BEE scale faculty. The difference in outcomes between the two measures again suggests differences by department in step at hire rather than rate of promotion while at UCSC.

*Promotion Growth by Gender and Department*

In our 2015 analysis, we found a significant negative relationship between the proportion of women in a department and average promotion growth since degree (PG1). We looked at this relationship again in the current study. As Table 2 and the following graph indicate, we again found a significant negative relationship, such that departments with the higher average promotion growth since degree (PG1) tend to have lower proportions of women faculty,  $p < .05$ .

Mean Departmental Promotion Growth for Regular Salary Scale Faculty by Percent Women

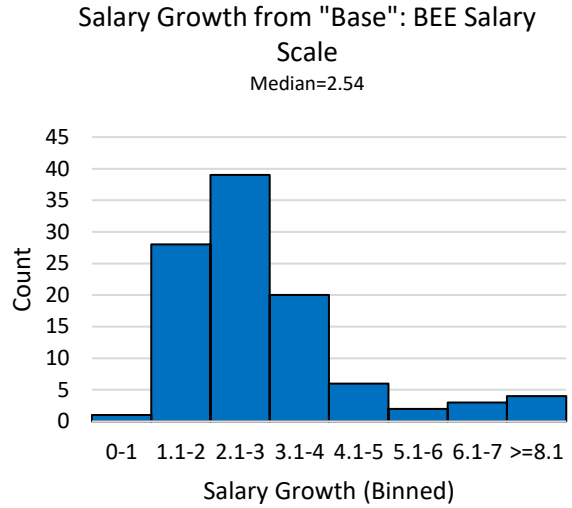
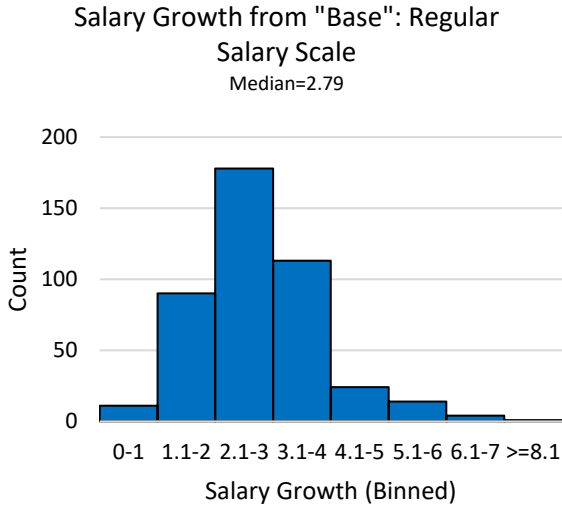


### Salary and Salary Growth

As in our 2015 analysis, we used the methodology developed by CFW to measure salary growth as an annualized percentage increase from estimated base salaries of \$74,600 and \$91,800 for regular and BEE salary scale faculty respectively. These figures represent salaries in current dollars offered to recent Assistant Professors at Step 1. Because this method uses a constant base salary, the need for inflation adjustment is eliminated. The average rates implied by the salary scales are 2.7% for REG and 2.1% for BEE faculty respectively.

$$\text{Current Salary} = \text{est. Base Salary} \left( 1 + \frac{\text{Salary Growth [SG]}}{100} \right)^{\text{years since degree}}$$

Among the 2017 faculty the median annualized salary growth was 2.79% among REG scale faculty and 2.54% among BEE faculty, somewhat higher than the “normative” rate implied by the salary scales. It is important to note that the “normative” rates in the scales does not take into account off-scale salary or salary increases associated with accelerations.

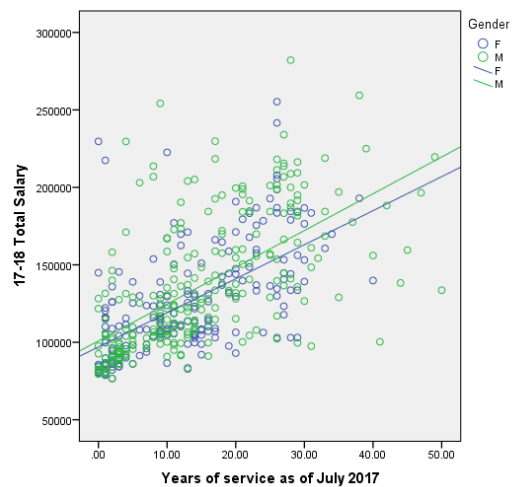
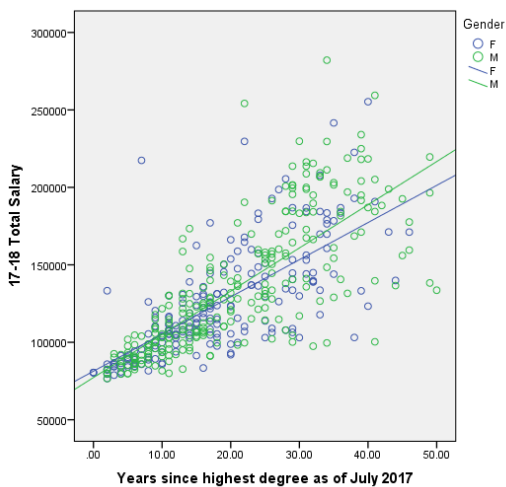


*Salary and Salary Growth by Gender*

To investigate the relationship between gender and salary growth before considering the effect of department we conducted linear regression analyses on both REG and BEE scale salary faculty. Faculty who earned their highest degree within the previous three years were excluded.

Gender was not predictive of salary growth for either group of faculty,  $p > .05$ , even without taking department into account. The lack of a gender effect is clearly evident in the scatterplots below, which indicate the log salary of male and female REG scale faculty against years since degree and years of service.

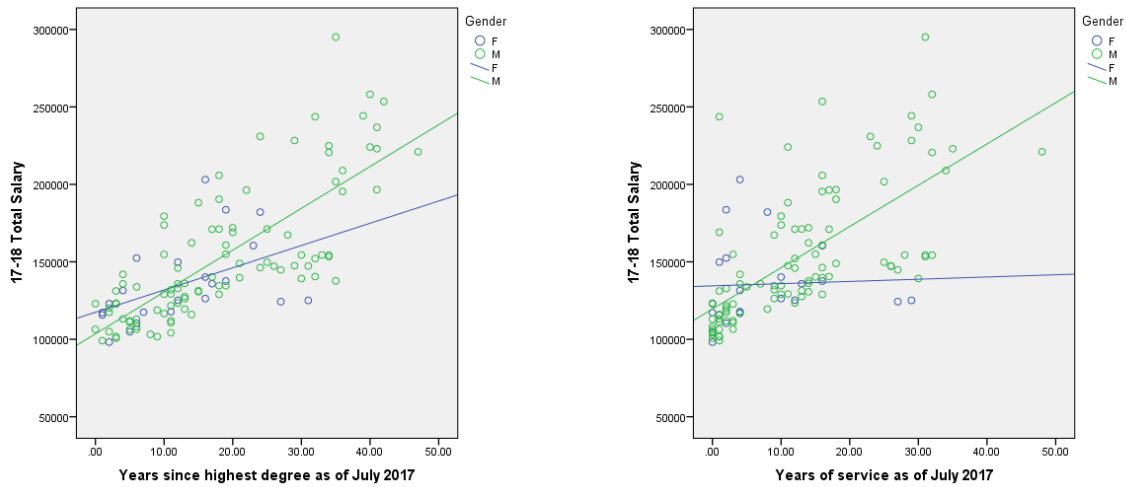
**Annual Salary of Regular Scale Faculty by Gender for Years since Degree and Years of Service<sup>1</sup>**



<sup>1</sup> Although excluded from the regression analyses of salary growth, faculty who were three or fewer years from degree are included in the scatterplots.

As a result of small and unequal numbers of women and men, and the complete lack of female faculty at the highest years since degree or years of service, the same data plotted for BEE faculty looks different. Indeed, a linear regression predicting log salary rather than salary growth, and including all BEE faculty without excluding those whose highest degree was earned three or fewer years ago, did find a significant interaction effect of gender X years of service,  $p < .005$ , indicating greater salary equity between female and male BEE scale faculty hired more recently than those who were hired longer ago.

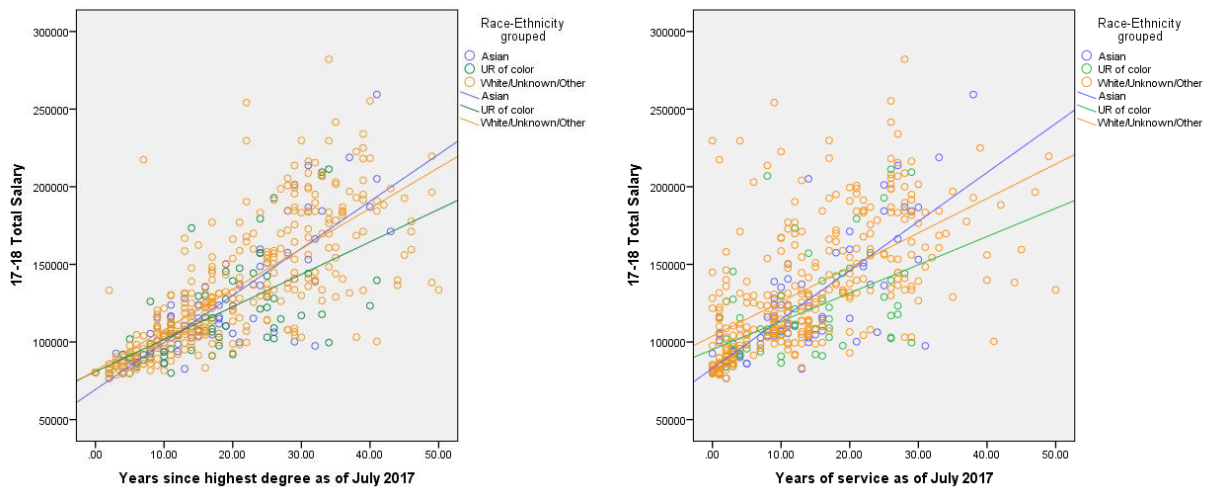
### Annual Salary of BEE Scale Faculty by Gender for Years since Degree and Years of Service



### Salary and Salary Growth by Race/Ethnicity

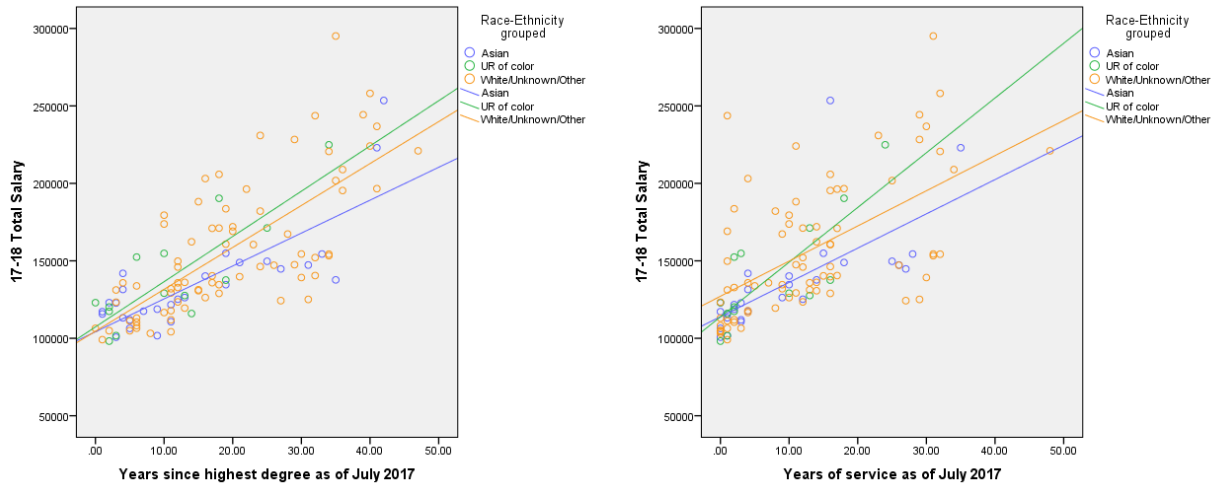
Linear regression analyses of the relationship between race/ethnicity and salary growth indicated a statistically significant effect for underrepresented minorities,  $p < .05$ , and a marginally significant effect for Asian faculty on the REG scale. There were no significant effects of race/ethnicity on salary growth among BEE scale faculty.

### Annual Salary of Regular Scale Faculty by Race/Ethnicity for Years since Degree and Years of Service





## Annual Salary of BEE Scale Faculty by Race/Ethnicity for Years since Degree and Years of Service



### Salary by Department

In our 2015 study we found a significant relationship between department and salary that “explained” the gender and race/ethnicity differences we observed. In other words, once we considered the relationship of department to salary, there were no observable differences by either gender or race/ethnicity.

In the current study we measured the influence of department on salary using the same method as our earlier study. Linear regressions for both REG and BEE faculty were fit using years since highest degree, gender, race/ethnicity, department, and the interactions with years since degree to predict (log) salary. (See Tables 3 and 4).

Consistent with our 2015 findings, years since degree and membership in some departments contributed significantly to the statistical prediction of salary. After taking those factors into account, we did not find evidence of systematic differences in (log) salary by gender or race/ethnicity.

### Discussion

Both promotion growth and salary vary by department, in some cases with statistical significance. While observed differences in salary and advancement can be explained by department, it is important to note that some of the higher paid and faster advancing departments are not particularly diverse, such as Astronomy and Astrophysics, Earth and Planetary Sciences, and Economics. Recent hiring trends suggest that this is changing (See Tables 5, 6, and 7). At the time of the 2015 analysis, Astronomy and Astrophysics had no academic-year female faculty, while the current roster is now 20% female. We also see an increase in newly hired female faculty among BEE Scale faculty. For example, 55% of BEE scale female faculty have been with the university for 5 years or less, compared to 34% of the BEE scale male faculty. However, BEE scale faculty still remain predominantly male (81% male), while regular scale faculty gender ratios are more balanced (57% male).

Another factor that we did not consider here, but which our CFW examined, was the role of outside offers. Their analysis suggests that faculty who had a successful retention review had significantly higher salaries and salary growth than any other sub-group of faculty on campus, and that departments with the highest number of retention cases had the highest median salaries. It is likely that retention offers help explain observed departmental differences as well as any observed gender or race/ethnicity effects.

Based on our findings we believe our best strategy going forward is to continue efforts to increase diversity of new faculty and to carefully attend to the initial step and salaries offered to new hires, particularly at the assistant professor level.

**Table 1**

## Regression Model Predicting Promotion Growth of Regular Salary Scale Faculty

		Standardized Regression Weights
Department	Anthropology	0.022
	Art	-0.109*
	Arts Division	-0.056
	Astronomy & Astrophysics	-0.01
	Chemistry & Biochemistry	0.031
	Earth & Planetary Sciences	0.135*
	Education	-0.061
	Ecology and Evolutionary Biology	-0.013
	Environmental Studies	0.103
	Microbiology & Environmental Toxicology	-0.006
	Film & Digital Media	-0.063
	Feminist Studies	0.007
	History of Art & Visual Culture	-0.003
	History of Consciousness	-0.005
	History	-0.048
	Languages & Applied Linguistics	0.006
	Latin American & Latino Studies	-0.05
	Linguistics	0.05
	Mathematics	-0.006
	Molecular, Cell, & Developmental Biology	-0.024
	Music	-0.083
	Ocean Sciences	-0.018
	Philosophy	-0.057
	Physics	0.024
	Politics	0.033
	Psychology	0.035
	Sociology	-0.05
Social Sciences Division	-0.074	
Theater Arts	0.113	
Literature (ref)	-	
Gender	Women	0.047
	Men (ref)	-
Race/Ethnicity	Underrepresented of Color	-0.03
	Asian	-0.08
	White (ref)	-
	R <sup>2</sup>	0.103
	N of Respondents	435

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

**Table 2**

## Promotion Growth &amp; Gender Distribution by Department of Regular Salary Scale Faculty

	N	Promotion Growth since Highest Degree		Gender
		Mean	Std. Deviation	Percent Women
Earth & Planetary Sciences	20	1.35	0.27	20
Theater Arts	15	1.35	1.35	53.3
Environmental Studies	18	1.3	0.35	27.8
Linguistics	12	1.22	0.26	25
Politics	14	1.19	0.24	50
Psychology	26	1.17	0.3	57.7
Anthropology	19	1.16	0.22	63.2
Chemistry & Biochemistry	22	1.15	0.19	18.2
History of Consciousness	4	1.15	0.25	25
Physics	22	1.15	0.19	9.1
Ecology and Evolutionary Biology	22	1.13	0.25	45.5
Feminist Studies	11	1.13	0.31	81.8
Languages and Applied Linguistics	6	1.13	0.35	50
Literature	31	1.11	0.24	45.2
Microbiology & Environmental Toxicology	6	1.11	0.16	50
History of Art & Visual Culture	11	1.1	0.29	45.5
Astronomy & Astrophysics	10	1.09	0.44	20
Mathematics	16	1.08	0.27	6.3
Molecular, Cell, & Developmental Biology	24	1.07	0.26	33.3
Ocean Sciences	12	1.05	0.27	41.7
History	27	1.04	0.32	55.6
Film & Digital Media	17	1	0.26	64.7
Sociology	12	1	0.39	58.3
Latin American & Latino Studies	9	0.98	0.22	77.8
Philosophy	10	0.98	0.33	30
Education	11	0.97	0.19	54.5
Music	13	0.93	0.27	30.8
Art	2	0.82	0.01	50
Social Sciences Division	3	0.8	0.55	66.7
Arts Division	10	0.79	0.3	70

**Table 3**  
Regression Models Predicting (log) Salary of Regular Scale Faculty

		Standardized Regression Weights
Years	Years since highest degree	0.641***
Department	Anthropology	-0.078
	Art	0.07
	Arts Division	-0.045
	Astronomy & Astrophysics	0.063
	Chemistry & Biochemistry	-0.1
	Earth & Planetary Sciences	-0.087
	Education	-0.108
	Ecology and Evolutionary Biology	-0.008
	Environmental Studies	0.086
	Microbiology & Environmental Toxicology	-0.1
	Film & Digital Media	-0.06
	Feminist Studies	-0.08
	History of Art & Visual Culture	-0.025
	History of Consciousness	-0.158
	History	-0.01
	Languages & Applied Linguistics	-0.035
	Latin American & Latino Studies	-0.014
	Linguistics	0.011
	Mathematics	-0.056
	Molecular, Cell, & Developmental Biology	-0.176*
	Music	-0.147
	Ocean Sciences	-0.193*
	Philosophy	-0.12
	Physics	-0.047
	Politics	-0.088
	Psychology	-0.082
	Sociology	0.01
	Social Sciences Division	0.109
Theater Arts	0.1	
Literature (ref)	-	
Gender	Women	0.082
	Men (ref)	-
Race/Ethnicity	Underrepresented of Color	-0.013
	Asian	-0.122
	White (ref)	-
Years from degree X Department Interaction	Years from degree X Anthropology	0.103
	Years from degree X Art	-0.15
	Years from degree X Arts Division	0.011
	Years from degree X Astronomy & Astrophysics	0.014
	Years from degree X Chemistry & Biochemistry	0.154
	Years from degree X Earth & Planetary Sciences	0.184*

	Years from degree X Education	0.047
	Years from degree X Ecology and Evolutionary Biology	0.014
	Years from degree X Environmental Studies	-0.065
	Years from degree X Microbiology & Environmental Toxicology	0.113
	Years from degree X Film & Digital Media	0.002
	Years from degree X Feminist Studies	0.054
	Years from degree X History of Art & Visual Culture	0.038
	Years from degree X History of Consciousness	0.176
	Years from degree X History	-0.004
	Years from degree X Languages & Applied Linguistics	0.003
	Years from degree X Latin American & Latino Studies	-0.033
	Years from degree X Linguistics	0.016
	Years from degree X Mathematics	0.056
	Years from degree X Molecular, Cell, & Developmental Biology	0.197
	Years from degree X Music	0.091
	Years from degree X Ocean Sciences	0.216*
	Years from degree X Philosophy	0.043
	Years from degree X Physics	0.125
	Years from degree X Politics	0.096
	Years from degree X Psychology	0.139
	Years from degree X Sociology	-0.024
	Years from degree X Social Sciences Division	-0.219*
	Years from degree X Theater Arts	-0.136
Years from degree x Gender Interaction	Years from degree X Women	-0.065
Years from degree x Race/Ethnicity Interaction	Years from degree X Underrepresented of Color	-0.065
	Years from degree X Asian	0.063
	R <sup>2</sup>	0.641***
	N of Respondents	435

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

**Table 4**  
Regression Models Predicting (log) Salary of BEE Scale Faculty

		Standardized Regression Weights
Years	Years since highest degree	0.683***
Department	Applied Mathematics & Statistics	-0.109
	Biomolecular Engineering	-0.386*
	Computer Engineering	-0.117
	Computational Media	-0.231
	Economics	0.238
	Electrical Engineering	-0.025
	Technology Management	0.036
	Computer Science (ref)	-
Gender	Women	0.251
	Men (ref)	-
Race/Ethnicity	Underrepresented of Color	-0.096
	Asian	-0.201
	White (ref)	-
Years from degree X Department Interaction	Years from degree X Applied Mathematics & Statistics	-0.008
	Years from degree X Biomolecular Engineering	0.275
	Years from degree X Computer Engineering	-0.002
	Years from degree X Computational Media	0.286
	Years from degree X Economics	-0.102
	Years from degree X Electrical Engineering	-0.033
	Years from degree X Technology & Information Management	-0.165
	Years from degree x Gender Interaction	Years from degree X Women
Years from degree x Race/Ethnicity Interaction	Years from degree X Underrepresented of Color	0.173
	Years from degree X Asian	0.062
R <sup>2</sup>		.708***
N of Respondents		103

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

**Table 5**

Regular Salary Scale Faculty by Gender		
	N Women	N Men
Years since Highest Degree		
0-5	23	18
6-10	28	40
11-15	35	44
16-20	38	35
21-25	23	26
26-30	18	35
31-35	22	31
36-40	9	16
41-45	4	10
>=46	1	6
Years of Service		
0-5	59	69
6-10	31	36
11-15	36	49
16-20	25	29
21-25	15	24
26-30	29	34
31-35	3	9
36-40	2	4
41-45	0	4
>=46	0	3



**Table 6**

BEE Salary Scale Faculty by Gender		
	N Women	N Men
Years since Highest Degree		
0-5	6	17
6-10	3	12
11-15	3	19
16-20	6	12
21-25	2	7
26-30	1	7
31-35	1	12
36-40	0	5
41-45	0	4
>=46	0	2
Years of Service		
0-5	12	33
6-10	3	10
11-15	2	18
16-20	2	13
21-25	0	4
26-30	2	8
31-35	1	9
36-40	0	0
41-45	0	0
>=46	0	1

**Table 7**  
Gender Distribution by Department of Regular Salary Scale Faculty  
2017-2018 and 2013-2014

	N	% Women	N	% Women
	17-18	17-18	13-14	13-14
Anthropology	19	63.2	23	65.2
Art	10	70	12	58.3
Arts Division	2	50	-	-
Astronomy & Astrophysics	10	20	10	0
Chemistry & Biochemistry	22	18.2	20	15
Earth & Planetary Sciences	20	20	20	20
Ecology and Evolutionary Biology	22	45.5	20	40
Education	11	54.5	15	53.3
Environmental Studies	18	27.8	19	42.1
Feminist Studies	11	81.8	7	100
Film & Digital Media	17	64.7	15	60
History	27	55.6	24	58.3
History of Art & Visual Culture	11	45.5	10	60
History of Consciousness	4	25	3	0
Humanities Division	-	-	2	0
Language Studies	-	-	4	75
Languages and Applied Linguistics	6	50	-	-
Latin American & Latino Studies	9	77.8	10	80
Linguistics	12	25	12	25
Literature	31	45.2	29	51.7
Mathematics	16	6.3	14	7.1
Microbiology & Environmental Toxicology	6	50	7	42.9
Molecular, Cell, & Developmental Biology	24	33.3	23	34.8
Music	13	30.8	14	50
Ocean Sciences	12	41.7	8	37.5
Philosophy	10	30	7	0
Physics	22	9.1	21	9.5
Politics	14	50	13	46.2
Psychology	26	57.7	24	54.2
Social Sciences Division	3	66.7	3	66.7
Sociology	12	58.3	14	64.3
Theater Arts	15	53.3	12	33.3

## Appendix

### UC Santa Cruz Academic Departments

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Dept. Abbreviation	Department Name
AMSD	Applied Mathematics & Statistics
ANTH	Anthropology
ARTD	Art
ARTS	Arts Division
ASTR	Astronomy & Astrophysics
BME	Biomolecular Engineering
CHEM	Chemistry & Biochemistry
CMPE	Computer Engineering
CMPM	Computational Media
CMPS	Computer Science
EART	Earth & Planetary Sciences
ECON	Economics
EDUC	Education
EEB	Ecology and Evolutionary Biology
ELE	Electrical Engineering
ENVS	Environmental Studies
ETOX	Microbiology & Environmental Toxicology
FILM	Film & Digital Media
FMST	Feminist Studies
HAVC	History of Art & Visual Culture
HISC	History of Consciousness
HIST	History
LAAL	Languages & Applied Linguistics
LALS	Latin American & Latino Studies
LING	Linguistics
LIT	Literature
MATH	Mathematics
MCDB	Molecular, Cell, & Developmental Biology
MUSC	Music
OCEA	Ocean Sciences
PHIL	Philosophy
PHYS	Physics
POLI	Politics
PSYC	Psychology
SOCY	Sociology
SSD OR SOCSCI	Social Sciences Division
THEA	Theater Arts
TM	Technology Management

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