# School of Nursing Faculty Salary Equity Report and Action Plan

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## UCSF SCHOOL OF NURSING-LEVEL FACULTY SALARY EQUITY REPORT

**Purpose**: The purpose of the analysis was to determine the presence and size of imbalance in faculty salary and accelerated academic advancement by race/ethnicity and gender within the School of Nursing. Data for this study was from the time period of: July 1, 2015 to June 30, 2016.

**Analysis Plan**: The analysis of the School of Nursing (SON) data followed the analysis plan of the overall UCSF 2014 and 2015 Faculty Salary Equity Review (FSER).

Race/ethnicity was recoded into a variable of underrepresented minority (URM) versus (vs) non-URM. URM was defined as those who identified as Black or African American, Hispanic, Native American/Alaskan Native, Filipino, or Hawaiian/Pacific Islander. Non-URM was defined as those who identified as White, Asian, or declined to state. Gender was coded as female or male.

The data specific to the SON was provided by Office of Academic Affairs, UCSF Human Resources.

The SON had 86 faculty members (in the broader campus report, faculty members were included who were greater than or equal to 75% time-SON followed the definition used within the broader campus analysis) who were included in the overall UCSF FSER. Seventy-seven (89.5%) were female and 9 (10.5%) were male. Sixteen (18.6%) were URM and 70 (81.4%) were Non-URM.

Annual salary rates (X+Y) were obtained on July 1, 2016. Salary amounts (X+Y or Z) were adjusted to full-time status by dividing by the percent effort of appointment. Salary amounts (X+Y or Z) were log transformed to reduce the possible influence of a very few high salaries and to provide interpretations in terms of percent differences in median salaries. Although there weren't any extreme salaries in the SON data, log transformed data were used in the SON analyses as well, in order to be comparable to the overall UCSF FSER analyses.

Z payment data represents the total Z payments received between July 1, 2015 and June 30, 2016. Z payments were analyzed by comparing the likelihood of receiving *any* Z payment between the genders and the two URM groups.

The primary analyses were carried out through regression approaches.

Multiple linear regression analyses were conducted to test for URM vs non-URM and female vs male imbalances in the log transformed salary amounts (X+Y). Coefficients from the regression analyses were back transformed to obtain a ratio interpretation. The results are reported with unadjusted estimates of the relative ratio (RR) with 95% confidence intervals (CI) and adjusted relative ratios (aRR) and 95% CI. The covariates that were included in the adjusted models were 1) Step, 2) Rank: Professor, Associate, or Assistant, 3) Doctorate type: Clinical, Research, or Other, 4) Series: Ladder rank or in Residence, Clinical X or HS Clinical, or Adjunct, and 5) Department: Community Health Systems (CHS), Family Health Care Nursing (FHCN), Physiological Nursing (PN), and Social and Behavioral Sciences (SBS).

The presence of a Z payment or presence of an accelerated advancement was first examined with Chi-square test of proportions and the Fisher Exact test and then was modeled with binomial logistic regression if appropriate.

**Results**

It should be noted that the relatively small total sample size of SON faculty (86) and the small percentage of males (10.5%) or URM (18.6%) does not provide much power to detect statistically significant ($p < .05$) differences between males and females or between URMs and non-URMs unless the effects were relatively large.

**Salary, Z payments, and Acceleration by Gender Status**

Both the unadjusted and the adjusted analyses controlling for step, rank, doctorate, series, and department did not indicate the presence of a statistically significant female vs male imbalance in X + Y salary (See Table 1).

The unadjusted female/male RR of median X+Y salaries was 1.00 (CI 0.85, 1.18). After adjustment, the aRR of median X + Y salaries was 0.96 (CI 0.88, 1.04); this was not statistically significant ($p = 0.33$). Only step and rank were statistically significant independent variables in the multiple linear regression analysis. As step went up salary went up. Assistant Professors made less salary than Associate Professors and Associate Professors made less salary than Full Professors.

One of the 9 male SON faculty members (11.1%) received a Z payment. Two of the 77 female faculty members (2.6%) had a Z payment. The difference between these two proportions was not statistically significant (two-tailed Fisher Exact $p = 0.29$). It was possible to calculate an unadjusted odds ratio for female gender related to having a Z payment. The unadjusted odds ratio for female gender was 0.21 (CI 0.02, 2.62). However, with only one male receiving a Z payment, using binomial logistic regression to get an adjusted odds ratio was statistically inappropriate.

None of the 9 male SON faculty members (0%) had experienced an accelerated merit or promotion. Four of the 77 female faculty members (5.2%) had an accelerated merit or promotion. The difference between these two proportions was not statistically significant (two-tailed Fisher Exact $p = 1.00$). The lack of any males having an

accelerated merit or promotion made the calculation of an odds ratio and using binomial logistic regression to get an adjusted ratio statistically inappropriate.

Neither of the 2 female faculty members who received a Z payment, 0 (0%) also had an accelerated merit or promotion. The one male faculty member who had a Z payment did not also have an accelerated merit or promotion.

Table 1
Female/Male X+Y Pay Ratio

| | Ratio | 95% Confidence Interval |
|---|---|---|
| Unadjusted | 1.00 | (0.85, 1.18) |
| Fully Adjusted | 0.96 | (0.88, 1.04) |

**Salary, Z Payments, and Acceleration by URM Status**

Both the unadjusted and the adjusted analyses controlling for step, rank, doctorate, series, and department did not indicate the presence of a statistically significant URM vs Non-URM imbalance in X + Y salary (See Table 2).

The unadjusted URM/Non-URM RR of median X+Y salaries was 0.91 (CI 0.80, 1.04). After adjustment, the aRR of median X + Y salaries was 0.96 (CI 0.90, 1.03). This was not statistically significant (p = 0.28). Only step and rank were statistically significant independent variables in the multiple linear regression analysis. As step went up salary went up. Assistant Professors made less salary than Associate Professors and Associate Professors made less salary than Full Professors.

None of the 16 URM SON faculty members, 0 (0%) received a Z payment. Three of the 70 non-URM faculty members (4.3%) had a Z payment. The difference between these two proportions was not statistically significant (two-tailed Fisher Exact p = 1.00). Since none of the URM faculty members received a Z payment, it was statistically inappropriate to calculate an unadjusted or adjusted odds ratio.

One of the 16 URM SON faculty members (6.3%) received an accelerated merit or promotion. Three of the 70 Non-URM faculty members (4.3%) had an accelerated merit or promotion. The difference between these two proportions was not statistically significant (two-tailed Fisher Exact p = 0.57). It was possible to calculate an unadjusted odds ratio for URM related to having an accelerated merit or promotion. The unadjusted odds ratio was not statistically significant (p = 0.74). The unadjusted odds ratio was 1.49 (CI 0.15, 15.32). However, with only one URM faculty member having an accelerated merit or promotion, using binomial logistic regression to get an adjusted odds ratio was statistically inappropriate.)

Table 2
URM/Non-URM X+Y Pay Ratio

| | Ratio | 95% Confidence Interval |
|---|---|---|
| Unadjusted | 0.91 | (0.80, 1.04) |
| Fully Adjusted | 0.96 | (0.86, 1.03) |

## Summary and Conclusions

**In the School of Nursing, we found** (1) no evidence of a salary imbalance by under-represented minority status in salary (X+Y), the presence of clinical incentives (Z), and no evidence of difference between URM and non-URM faculty in the presence of an accelerated advancement. However, despite finding no statistically significant imbalance in salary (X+Y) between URM and non-URM, we found a trend whereby URM received 4% lower salaries than did non-URM controlling for covariates (2) no statistically significant imbalance in salary (X+Y) by gender. Despite finding no statistically significant imbalance in salary between women and men, we found a trend whereby women received 4 percent lower salaries (X+Y) compared to men controlling for all covariates; (3) No statistically significant imbalance by gender in the presence or absence of a clinical Z payment; (4) no statistically significant difference by gender with respect to the presence of accelerated academic advancements.

Because males make up only 10.5% of the 86 faculty in this sample and URM constitute 18.6% of the faculty in this sample, we do not have adequate power to determine statistically significant differences between groups, unless the effects are relatively large. However, in order to understand the trends in X+Y salary discussed above, SON carried out a matched pair analysis to determine if any of the imbalances in pay were due to inequities or legitimate business practices. These results showed that none of the matched pairs in the gender analysis were found to be due to an inequity in pay and all were found to be due to legitimate business practices. We found 1 URM faculty member who was paid less than their Non-URM matches and this difference was not due to normal business practices. Thus, this salary was corrected at the Department level retroactively for 2015-2016. See Appendix A for more detail on the matched pair analysis. All other imbalances by URM status were due to legitimate business practices.

A few of our faculty members do not have a perfect match in our ad hoc matched pair analysis; changing the choice of methodologies may yield a slightly different analysis and conclusions. The SON therefore ran an additional residual analysis where predicted salaries are based on department, rank, step, degree and series (using the same method of analysis that was carried out by CM for Dentistry last year). Results from the residual analysis showed that we have only two faculty members who make less than the predicted salary—these were mid-career ladder rank faculty members and their lower pay was due to receiving lower levels of grant money. This imbalance is a result

of legitimate business practice and not due to inequity. We also found 7 faculty who were paid more than model predictions—again—the differences were due to higher levels of grant money received and these differences are determined to be due to normal business practices.

**Action Plans**

1. The School of Nursing invested in a Diversity Initiative in 2015 in order to increase its critical mass of faculty of color, particularly from under-represented minority groups. Our proportion of faculty of color was 12% in 2015 and is 19% now-our School-level goal is to reach 30% by 2020.
2. The SON is committed to repeating salary equity analyses in the future. Should the SON find statistically significant imbalances in any of the outcomes in future years, a faculty sub-committee will be formed to work with the Associate Dean for Academic Affairs to determine the root causes of the imbalance (e.g., workload differences, grantsmanship productivity, inequity in pay).
3. If future SON analyses uncover an inequity by gender or URM status, the School will determine a plan to rectify salary, acceleration, or Z payment imbalances.
4. Despite the fact that there were not any statistically significant salary imbalances, the SON carried out an additional analysis using matched pairs to understand salary differences more deeply. The results are included in Appendix A. We also carried out a residual analysis. While all but one ladder rank and adjunct faculty difference in salary were due to differences in grant money received, 1 URM faculty in the Clinical series was found have an X+Y salary $12,000 lower than their non URM matches. The Associate Dean for Academic Affairs discussed this with the Chair of this Department and the Chair rectified the imbalances in pay for the 2015-2016 year. The root cause for this pay difference was identified and will be changed at the Department level.
5. Associate Dean Dworkin recommends that all SON Chairs who are hiring faculty members should check the rank, step, and salary with her office prior to finalizing the offer letter to ensure salary equity at the point of entry into the institution. This can reduce some salary differences between men and women and between URM and Non-URM faculty.
6. Associate Dean Dworkin has assembled a sub-committee (all of the SON Vice Chairs) that has read this report and contributed to it. This sub-committee also contributed to the action plans detailed here. One additional action step that the sub-committee suggested was to try to systematize salary equity proactively more so at the institutional level so as to reduce salary inequity within and across schools.

**Acknowledgments**

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