# AY24-25 UCR Salary Equity Program
## UCR Academic Personnel Office
## 7/9/2024

**Abstract**

Along with the announcement of a 4.2% scale adjustment to base salaries for AY24-25, a local decision was made to increase the off-scale component of salaries by 3.0% and all above-scale salaries by 3.0%. Besides these increases, UCR is following through on a commitment to implement a salary equity program every two years.  This memo describes the AY24-25 salary equity program that will provide salary equity adjustments for 92 Senate ladder-rank faculty members who had AY23-24 salaries that were 5% or more below their projected median salary.  The adjustments add a total of $300,986 to the campus-wide cost of faculty salaries and benefits.  This memo summarizes the AY24-25 salary equity plan and points out where the methodology used differs from the methodology used for the AY22-23 salary equity plan.

## 1. Motivation and Purpose

The UCR salary equity program for Senate ladder-rank faculty members is intended to: a) identify faculty whose professorial academic-year salaries are below expectations relative to *comparable UCR peers* and for which there is no explanation that would offer justification, and b) subject to budget availability, make adjustments to bring those salaries closer to expectations.  The program defines comparable UCR peers as UCR faculty in the same area/discipline, in the same professorial series, and who are at the same rank and step.   Defined this way, the only reason that salaries would differ for comparable UCR peers is because of differences in their respective off-scale salary components.  Off-scale salary component differences can arise because of different initial appointment times, additional off-scale treatment during M/P reviews, and/or retention actions.

## 2. Calculation of Predicted Median Salaries

2.1 Data Set

The AY22-23 salaries (base plus off-scale) for 746 faculty members comprised the data set used to construct a statistical regression model.  The data set was subject to the following exclusions:  1) full-time faculty administrators, 2) above-scale faculty members, and 3) Business school faculty members who are addressed separately as described below.  Salaries for faculty members with fiscal year appointments were converted to 9-month salaries by dividing by 1.16, per APM-600-18.

The statistical regression model predicts the median salary that would be expected for UCR faculty members based on their discipline (department), their type of professor (professor series versus professor of teaching series), their rank, and their step.  The predicted median salary has the interpretation that half of the faculty members with appointments of the same type, within the same discipline, and at that same rank and step could be expected to have a higher salary, and half a lower salary.

A new feature in this salary equity program cycle for BCOE was to create two virtual departments from the five actual departments.   Specifically, BCOE leadership communicated that computer science is subject to market forces that are different from the other four departments.  It was felt that putting ME, ECE, CEE, and BIEN in one virtual department and CSE by itself in another virtual department would manifest in more accurate estimates of discipline (department) effects that are part of the statistical regression model.

2.2 Statistical Regression Model

2.2.1 BCOE, CHASS, CNAS, SOE, SOM, SPP

The natural logarithm of the faculty salaries was used as the dependent variable in a multiple regression model.   The explanatory variables in the model were department, professor type, rank, and step, all of which were coded as categorical variables.  The step variable was nested within rank, and the professor type variable was variable across colleges.  There were 65 model degrees of freedom, and the R-square value of the fit was 0.94.  Residual plots looked satisfactory and confirmed a satisfactory model fit.

The regression model provides a predicted mean for the logarithm of the salary.  Exponentiation of the predicted mean results in the predicted median salary for faculty, as a function of their department, professor type, rank, and step.  Faculty members with current salaries less than their predicted median were identified for consideration of salary equity adjustments.

2.2.2 Business

The School of Business is organized as one department but with five substantially different areas with respect to external market factors.  The areas are accounting, marketing, finance, supply chain, and management.  A multiple regression model was separately fit to the natural logarithm of faculty salaries for the 36 faculty in the school of business.  The regression model had the same three explanatory variables used for the AY22-23 salary equity program plus a new variable that was added for this cycle.

The original three are:  1) base salary for rank and step from Table 3 of the UC salary tables, 2) the $90^{th}$ percentile salaries from a national survey of business school salaries, by rank and area, conducted by the Association to Advance Collegiate Schools of Business (AACSB), and 3) professor type.  The new variable that was added on guidance from the Business school leadership was the number of publications in top journals.   The rationale for the new variable was that it captures performance of the faculty members that is important to Business.  The number of top journal publications was determined by consulting the ranked lists that were compiled by the University of Texas – Dallas and the University of Southern California.  The number of publications by each faculty member that were in selected journals on those lists was counted and then the two counts were averaged and used as the new variable in the regression model.  The journals that were identified as top journals is detailed in the appendix to this report.

The R-squared score of the Business school regression model was .95 and in line with model for the rest of the campus.   As with the other colleges/schools, faculty members with current salaries less than their predicted median were identified for consideration of equity adjustments, but different Business capped the increases at $10K.

**3. Faculty Not Making Normative Progress**

Faculty members who met one of the following conditions were identified as making progress that was not normative progress (NNP):

1. Associate Professor rank for 12+ years, or
2. Professor below Step VI for 18+ years, or
3. Professor at Step VI/VII/VII/IX for 6+/7+/8+/9+ years

A total of 61 faculty members were identified in the NNP group and these faculty members were excluded from consideration of salary equity adjustments.

**4. Vetting**

College/school specific lists of faculty that were identified for equity adjustments were sent to each Dean.  The Deans were asked to review the lists and determine if there were any reasons to remove faculty from those lists, and if so, to provide a narrative explanation.  No faculty members were removed by any of the Deans other than cases where a retention offer was accepted during AY23-224.

A new feature in this cycle is a decision to handle split appointments by averaging salary adjustments that would be estimated from the model based on each of the departments involved based  upon the percentage appointment associated with each department.

**5. Adjustment Plan**

Table 1 shows the the salary equity program that the campus budget allowed.  With this plan, all faculty members whose salary is more than 5% below their predicted median will receive a salary equity adjustment.  The salary equity program will impact 92 faculty members and cost $300,986 of additional permanent funding to the colleges/school budgets.

| Adjustment Plan | Faculty | Salary Cost ($) | Benefits Cost ($) @ 35.6% | Total Cost ($) |
|---|---|---|---|---|
| 5% | 92 | 221,966 | 79,020 | 300,986 |

Table 1.  Faculty Impacted and Cost of Adjustment Scenarios

Table 2 shows how the number of faculty impacted distributes over gender and ethnicity, and Table 3 shows the same information with respect to college/school.

| Adjustment Plan | N | Gender | | | Ethnicity Category | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Female | Male | Unknown | Alaskan/ American Indian | Asian | Black/African American | Hispanic | 2 or more | White | Unknown |
| 5% | 92 | 30 | 53 | 9 | 0 | 26 | 3 | 10 | 3 | 42 | 8 |
| | | 32.61% | 57.61% | 9.78% | 0% | 28.26% | 3.26% | 10.87% | 3.26% | 45.65% | 8.70% |
| | | | | | | | | | | | |
| CAMPUS | | 32.61% | 55.68% | 11.71% | 0.11% | 26.70% | 4.59% | 9.66% | 2.54% | 49.40% | 6.04% |

Table 2.  Demographics of Faculty Impacted by Adjustment Scenarios

| Adjustment Plan | | Colleges/Schools | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | BCOE | Business | CHASS | CNAS | SOE | SOM | SPP |
| 5% | Cost | 103,792 | 49,353 | 66,099 | 52,608 | 7,322 | 9,937 | 11,875 |
| | N=92 | 23 | 6 | 34 | 20 | 5 | 3 | 1 |
| | PCT | 25.00% | 6.52% | 36.96% | 21.74% | 5.43% | 3.26% | 1.09% |
| | | | | | | | | |
| CAMPUS | | 15.93% | 4.50% | 36.95% | 33.37% | 3.46% | 3.70% | 2.08% |

Table 3.  Faculty Impacted by Adjustment Scenarios by College/School

## 6. Implementation

The salary equity adjustments received by faculty members will be rounded up to the next highest multiple of one hundred dollars.  All salary equity adjustments for faculty members will be effective 10/1/2024.

**APPENDIX:  Journals included for Business Salary Equity Model (typical academic area noted, but any faculty publication in any of these journals was counted)**

Academy of Management Journal** Management
Academy of Management Review** Management
Administrative Science Quarterly** Management
Annals of Applied Probability Operations
Information Systems Research** Information Systems
Journal of Accounting and Economics** Accounting
Journal of Accounting Research** Accounting
Journal on Computing Operations/Information Systems
Journal of Consumer Research** Marketing
Journal of Finance** Finance
Journal of Financial Economics** Finance
Journal of International Business Studies Interdisciplinary
Journal of Marketing** Marketing
Journal of Marketing Research** Marketing
Journal of Operations Management Operations
Management Science** Operations/IS/Marketing (Quant)/Finance
Manufacturing and Service Operations Management** Operations
Marketing Science** Marketing (Quant)
Mathematics of Operations Research Operations
Mathematical Programming Operations
MIS Quarterly** Information Systems
Operations Research** Operations
Organization Science** Management
Organizational Behavior and Human Decision Processes Management-Micro, Marketing (Consumer Behavior)
Personnel Psychology Management-Micro
Production and Operations Management Operations
Review of Financial Studies** Finance
Strategic Management Journal** Management
The Accounting Review** Accounting

**On both USC and UTD lists:
Accounting: 3 journals; Finance: 3 journals; Marketing (Behavioral and Quantitative): 4 journals (3 each); Operations: 3 journals; Information Systems: 3 journals; Management (Micro and Macro): 5 journals

Note: We have no Information Systems faculty

USC counts the following top 'core discipline journals':

Top Sociology Journals that Macro Management can publish in*:
American Journal of Sociology
American Sociological Review

Top Economics Journals that Finance can publish in*:
American Economic Review
Econometrica
Journal of Political Economy
Quarterly Journal of Economics
Review of Economic Studies

Top Psychology Journals that both Micro Management and Marketing (Consumer Behavior) can publish in:
Journal of Experimental Psychology: General
Journal of Experimental Social Psychology
Journal of Personality and Social Psychology
Psychological Science

Top Psychology Journals that Micro Management can publish in:
Journal of Applied Psychology

*No UCR B school faculty have published in these outlets.