Salary Equity Committee

FY17 FACULTY SALARY EQUITY STUDY

Process, Findings and Recommendations for Moving Forward
Salary Equity Committee - Presenters

Diana Prieto  
Chair, Salary Equity Committee  
Executive Director, Human Resources and Equal Opportunity

Laura Jensen  
Associate Provost for Planning and Effectiveness, Office of the Provost

Dan Bush  
Vice Provost for Faculty Affairs, Office of the Provost

Colleen Webb  
Professor, Department of Biology
Spring 2015: President Tony Frank called for the formation of a committee of internal and external experts with the purpose of analyzing CSU’s salary equity activity and recommending a path to move forward.

**Charge:** Develop a reliable and transparent methodology for assessing TT faculty salary equity.
Committee Composition

Internal Members:

- Faculty (five members across multiple disciplines)
- Vice Provost for Faculty Affairs
- Associate Provost for Planning and Effectiveness
- Executive Director of Human Resources and Equal Opportunity
- Assistant Director of the Office of Equal Opportunity
Committee Composition

External Members:

• Associate Vice Provost for Faculty, Univ. California-Berkeley
• Assistant Vice Provost for the Office for Institutional Equity & Diversity, Univ. of North Carolina-Chapel Hill
• Professor of Statistical Science, Duke Univ.
• Consultant with Berkeley Research Group
Formation and Change

During fall spring 2016, Dr. Tony Irwin, President of Colorado State University (CSU), called for the creation of a Committee of Faculty and Student Women to analyze Colorado State University’s faculty salary equity model and provide recommendations of effective practices that would strengthen the work conducted at the University. The Salary Equity Committee (committees) was appointed through distributed email to faculty and seniors with the leadership of the standing committee on the status of Women’s Faculty, the President’s Commission on Women and Gender Equity, and the Faculty Council. Subsequently, Dr. Kim Millett, Provost and Executive Vice President, charged the Committee at its first meeting on October 20, 2016, to follow up with the Committee at its first meeting on October 20, 2016. In the change, Dr. Millett spoke as:

- A desire to put CSU on a path to reach an appropriate balance in the area of salary equity.
- A desire to create an analysis that provides an equitable analysis for non-tenure track faculty and the institution.
- A desire to ensure the analysis is equitable between faculty and the institution.
- A desire to ensure the analysis is equitable between faculty and the institution.

- A desire to include salary equity analyses for non-tenure track faculty, administrative professional, and classified employee groups.
- A desire for CSU to be a model for salary equity analysis.
- The Committee to communicate the final report publicly in the campus community.
- Statistic analyses for recommendations or mode in terms for use during this year.
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Conclusions

The purpose of this study is to understand the relationship between gender and minority status and salary for CSU’s tenured and tenure-track faculty. The regression model used in the analysis was selected by the salary equity committee after significant consideration and use in industry. The model is gender and one for minority status, as shown for each rank. Assistant, Associate, and Full Professor: women included gender and minority status, instrument, and exists by rank. The reports of this study are shared with the results.

- Gender and one of minority status are important in CSU’s faculty salary equity model.
- Male faculty reported significant differences between women, and female faculty reported significant differences between male faculty.
- The salary gap for female full professors is statistically significant at 10.2 percent of what their non-minority colleagues earn. In FY17, the difference was 5.4 percent. These were not statistically significant differences by gender, in any of the five years, at the Assistant Professor or Associate Professor ranks.
- The salary gap for minority Associate Professor is statistically significant in the five years and appears to have expanded. In FY17, minority Associate Professor earned 12.9 percent of what their non-minority colleagues earned in FY17, whereas 100 percent. There were no statistically significant differences by gender, in any of the five years, at the Assistant Professor or Associate Professor ranks.

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Salary Equity Committee Report:

• Provides brief history of Committee’s formation, charge
• Lists names and affiliations of members
• Details development of the models and how variables were selected
• Makes recommendations for implementation and further analysis, addresses need to provide guidance to department chairs/heads on how to use the models
Faculty Salary Equity Analysis Report:

- Provides in-depth explanation of the study
- Goes into more depth about development of methodology and results
- Includes appendices of extensive tables with regression model coefficients for each rank by gender or minority status after controlling for department
Between Group Models

Two regression models to explore between group differences – one by gender and by minority status – were completed for each faculty rank to assess salary variance.

**Male vs. Female**  
**Minority vs. Non-Minority**

The models were used for a single year analysis (FY17) and to assess change over time (FY13-FY17), but did not speak to the salary of any individual faculty member.
Variables: Between Group Models

**Dependent**
Log of the standardized 9-month salary with a .75 conversion for 12 month salaries

**Independent**
Gender or Minority Status
Years in Current Rank
Department

The models were selected to ensure best practices and data fidelity.
Explanatory Power of the Models

<table>
<thead>
<tr>
<th>Rank</th>
<th>Gender</th>
<th>Minority Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Professor</td>
<td>96.3%</td>
<td>96.3%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>83.5%</td>
<td>84.2%</td>
</tr>
<tr>
<td>Full Professor</td>
<td>64.9%</td>
<td>64.2%</td>
</tr>
</tbody>
</table>

- Explanatory power is inversely related to rank.
- The models are robust enough to give confidence to the results of the between group differences but not precise enough to allow for predicted any individual faculty member’s salary.
Findings: FY17 Between Group Analysis

- Female Full Professors earn 95.1% of what their male colleagues earn after controlling for department and years in rank.

- No statistically significant differences were identified at the Assistant Professor or Associate Professor ranks regarding gender.
Findings: FY17 Between Group Analysis

- Minority Associate Professors earn 94.6% of what their non-minority colleagues earn after controlling for department and years in rank.

- No statistically significant differences were identified at the Assistant Professor or Full Professor ranks regarding minority status.
### Findings: FY17 Between Group Analysis

<table>
<thead>
<tr>
<th>Rank</th>
<th>Female Faculty Salary as a Percent of Male</th>
<th>Minority Faculty Salary as a Percent of Nonminority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Professor</td>
<td>98.8%</td>
<td>98.5%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>99.9%</td>
<td>94.6%</td>
</tr>
<tr>
<td>Full Professor</td>
<td>95.1%</td>
<td>102.9%</td>
</tr>
</tbody>
</table>
### Findings: Between Group Trends (FY13-FY17)

<table>
<thead>
<tr>
<th>Assistant Professor</th>
<th>Female Faculty Salary as a Percent of Male</th>
<th>Minority Faculty Salary as a Percent of Nonminority</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13</td>
<td>99.3%</td>
<td>101.3%</td>
</tr>
<tr>
<td>FY14</td>
<td>99.9%</td>
<td>102.3%</td>
</tr>
<tr>
<td>FY15</td>
<td>99.2%</td>
<td>100.1%</td>
</tr>
<tr>
<td>FY16</td>
<td>98.6%</td>
<td>98.3%</td>
</tr>
<tr>
<td>FY17</td>
<td>98.8%</td>
<td>98.5%</td>
</tr>
</tbody>
</table>

At the Assistant Professor rank, there were no statistically significant differences detected in the last five years by gender or minority status.
Findings: Between Group Trends (FY13-FY17)

<table>
<thead>
<tr>
<th>Associate Professor</th>
<th>Female Faculty Salary as a Percent of Male</th>
<th>Minority Faculty Salary as a Percent of Nonminority</th>
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<tr>
<td>FY13</td>
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</tr>
<tr>
<td>FY14</td>
<td>100.3%</td>
<td>96.8%</td>
</tr>
<tr>
<td>FY15</td>
<td>99.8%</td>
<td>97.2%</td>
</tr>
<tr>
<td>FY16</td>
<td>100.3%</td>
<td>95.2%</td>
</tr>
<tr>
<td>FY17</td>
<td>99.9%</td>
<td>94.6%</td>
</tr>
</tbody>
</table>

At the Associate Professor rank, there were no statistically significant differences detected in the last five years by gender, but a significant main effect existed by minority status in FY14, FY16, and FY17 where minority faculty earned below what their nonminority colleagues earned after controlling for department and years in rank.
Findings: Between Group Trends (FY13-FY17)

<table>
<thead>
<tr>
<th></th>
<th>Female Faculty Salary as a Percent of Male</th>
<th>Minority Faculty Salary as a Percent of Nonminority</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Professor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY13</td>
<td>92.1%</td>
<td>101.1%</td>
</tr>
<tr>
<td>FY14</td>
<td>93.5%</td>
<td>101.7%</td>
</tr>
<tr>
<td>FY15</td>
<td>92.2%</td>
<td>103.9%</td>
</tr>
<tr>
<td>FY16</td>
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<td>102.7%</td>
</tr>
<tr>
<td>FY17</td>
<td>95.1%</td>
<td>98.5%</td>
</tr>
</tbody>
</table>

At the Full Professor rank, there were no statistically significant differences detected in the last five years by minority status, but a significant main effect existed by gender in each of the five years where female faculty earned below what their males colleagues earned after controlling for department and years in rank.
The between groups model, EXCLUDING gender and minority status, was used to identify faculty whose salary fell outside an expected range (±20%).

- Dependent variable: log 9-month salary
- Independent variables: years in rank and department

Predicted salary for individual faculty is not provided because of the explanatory power of the model.
The Salary Equity Committee, comprised of internal and external experts, was charged in the summer of 2015 with analyzing potential equity issues at CSU and recommending a path to move forward. The Committee anticipates that the findings and recommendations will serve to encourage the ongoing dialogue on campus related to salary equity for tenured and tenure-track faculty, and that the models developed for faculty analysis will be applied for other employee groups in the University’s continued exploration of salary equity.

**INDIVIDUAL FACULTY SALARY INFORMATION**

Regression models (one for each rank) were adapted from the between groups analysis and employed to inform the Individual salary exercise. These reports will be released to department chairs/heads at the end of March along with training in the appropriate use of the data. Faculty are encouraged to click the link below to review their data for accuracy and make corrections through Human Resources as necessary.

- Individual Faculty Salary Information

**BETWEEN GROUPS SALARY EQUITY**

The purpose of the between groups study is to understand the relationship between gender/minority status and salary for CSU tenured and tenure-track faculty. The regression models used in this analysis were selected by the Salary Equity Committee after significant deliberation and will be used annually for three years at which time they will be reviewed to ensure the process continues to employ the most appropriate methods possible (data will be updated annually). The models were used for a single year analysis (FY17) and to describe change over time (FY13-FY17), but did not speak to the salary of any individual faculty member.

- CSU Salary Equity Committee Report 2017
- CSU Faculty Salary Equity Analysis 2017
- CSU Summary of Faculty Study 2017

[www.IR.ColoState.edu/data-reports/faculty/salary-equity/](http://www.IR.ColoState.edu/data-reports/faculty/salary-equity/)
Recommendations

- This analysis be repeated annually with the same methodology for three years, and a review of the methodology be undertaken every five years thereafter.

- Further exploration be done to attempt to explain the Female Full Professor and Minority Associate Professor salary variances that remain unaccounted for in the current models.
Recommendations

- Creation of an internal review body by college to review individual salaries that are noted for further inquiry.

- Periodic exploration of time-to-promotion from associate to full professor to identify, understand and address any barriers to promotion for all faculty, particularly women and minorities.
Guide and educate department chairs/heads on how to use the individual model and the salary equity data reported during the salary exercise, and how to engage in a conversation with faculty in their departments about the faculty member’s salary and salary equity.
During the execution of annual performance evaluations, each chair/head bring to bear an understanding of the differences in the contributions by faculty in a department to teaching and service.

Continued and periodic efforts be taken to ensure data are entered into the HR system and the data entered are complete and accurate.
The Committee anticipates these findings and recommendations will serve to encourage the ongoing dialogue on campus related to salary equity for tenured and tenure-track faculty.
The between group model with available variables will be explored for application in the salary equity study conducted by the Office of Equal Opportunity for non-tenured faculty, administrative professional and state classified employee groups.
<table>
<thead>
<tr>
<th>Questions</th>
<th>Comments</th>
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www.IR.ColoState.edu/data-reports/faculty/salary-equity/