

Salary Equity Committee

FY17 FACULTY SALARY EQUITY STUDY

**Process, Findings and Recommendations for
Moving Forward**

Salary Equity Committee - Presenters

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Committee Formation and Purpose

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

Work of the Committee

Salary Equity Committee Report

March 2017

Formation and Charge

During late spring 2015, Dr. Tony Frank, President of Colorado State University (CSU), called for the creation of a committee of internal and external experts 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 (Committee) was appointed through nominations received from and reviewed with the leadership of the Standing Committee on the Status of Women Faculty, the President's Commission on Woman and Gender Equity, and the Faculty Council.

Subsequently, Dr. Rick Miranda, Provost and Executive Vice President, charged the Committee at the first meeting held October 26, 2015. In the charge, Dr. Miranda spoke to:

- A desire to put CSU on a path to reach an appropriate balance in the area of faculty salary equity.
- A desire for a model that employs a best practice in methodology.
- Consider gender as well as other subpopulations in the use of the model.
- Consider how to address extraordinary events such as retention efforts.
- Consider how to extend the model beyond tenured and tenure-track faculty to include salary equity analyses for non-tenured faculty, administrative professional and state classified employee groups.



- A goal for CSU to be a model nationally for salary equity analyses.

- The Committee to communicate the final report publicly to the campus community.

Timeframe: March for recommendation of model in time for use during the spring salary exercise; full report by the end of the academic year.

Reports
available
online

CSU
Institutional
Research
website

FY17 Faculty Salary Equity Analysis Executive Summary

The purpose of this study is to understand the relationship between gender and minority status with 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). Two models (one for gender and one for minority status) were completed for each rank: Assistant, Associate and Full. Predictor variables included gender or minority status, department, and years in rank.

Note that the explanatory power of the models is inversely related to rank. For example, at the Full Professor rank, over 1/3 of the salary variance is left unexplained by the model and, as the Committee discussed at length, may be attributable to multiple other factors (research, teaching and service effort distribution and achievement). The models assess the salary difference between groups and do not speak to the salary of any specific individual faculty member.

Salient findings for the FY17 single year analysis are summarized below.

- ▶ Minority Associate Professors earn 94.6 percent 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.
- ▶ Female Full Professors earn 95.1 percent 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.

Analyses were completed to assess change over time (FY13-FY17). Salient findings are summarized below.

- ▶ The salary gap for female Full Professors is observable over time but appears to be closing. In FY13, female Full Professors earned 92.1 percent of what their male colleagues earned; in FY17, this increased to 95.1 percent. There were no 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 Professors is statistically significant in three of the five years and appears to have expanded. In FY13, minority Associate Professors earned 97.8 percent of what their non-minority colleagues earned; in FY17, this decreased to 94.6 percent. There were no statistically significant differences by minority status, in any of the five years, at the Assistant Professor or Full Professor ranks.

Work of the Committee

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

Work of the Committee

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

Rank	Gender	Minority Status
Assistant Professor	96.3%	96.3%
Associate Professor	83.5%	84.2%
Full Professor	64.9%	64.2%

- 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

Rank	Female Faculty Salary as a Percent of Male	Minority Faculty Salary as a Percent of Nonminority
Assistant Professor	98.8%	98.5%
Associate Professor	99.9%	94.6%
Full Professor	95.1%	102.9%

Findings: Between Group Trends (FY13-FY17)

Assistant Professor	Female Faculty Salary as a Percent of Male	Minority Faculty Salary as a Percent of Nonminority
FY13	99.3%	101.3%
FY14	99.9%	102.3%
FY15	99.2%	100.1%
FY16	98.6%	98.3%
FY17	98.8%	98.5%

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)

Associate Professor	Female Faculty Salary as a Percent of Male	Minority Faculty Salary as a Percent of Nonminority
FY13	99.8%	97.8%
FY14	100.3%	96.8%
FY15	99.8%	97.2%
FY16	100.3%	95.2%
FY17	99.9%	94.6%

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)

Full Professor	Female Faculty Salary as a Percent of Male	Minority Faculty Salary as a Percent of Nonminority
FY13	92.1%	101.1%
FY14	93.5%	101.7%
FY15	92.2%	103.9%
FY16	93.6%	102.7%
FY17	95.1%	98.5%

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.

Individual Model

- The between groups model, **EXCLUDING** gender and minority status, was used to identify faculty whose salary fell outside an expected range ($\pm 20\%$).
 - 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.

SALARY EQUITY

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. Those 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](#)

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.

Recommendations

- 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.

Recommendations

- 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.

Recommendations

- 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.

Other Employee Groups

- 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.

Salary Equity Committee

FY17 FACULTY SALARY EQUITY STUDY

Questions

Comments

www.IR.ColoState.edu/data-reports/faculty/salary-equity/