

# Salary Equity Committee Summary of Faculty Study



COLORADO STATE  
UNIVERSITY

## PURPOSE

The Salary Equity Committee conducted this study for the purpose of assessing potential salary equity issues and to understand the relationship between gender and minority status with salary for CSU tenured and tenure-track faculty.

The Committee of internal and external experts was formed in the summer of 2015 with the charge of analyzing CSU's salary equity model and recommending a path to move forward.

## METHODOLOGY

Two regression models – one for gender and one for minority status – were completed for each faculty rank to assess salary variance. The models were selected to ensure best practices and data fidelity.

The models assess the salary difference between groups (i.e., male vs. female and minority vs. non-minority) and do not speak to the salary of any individual faculty member.

## VARIABLES

### Dependent

The models used a logarithm of the 9-month salary. The salaries for 12-month contracts were first converted at 0.75 for 9-month salary standardization.

### Independent

Gender  
Minority Status  
Years in Rank  
Department

### FY17 single year analysis, salient findings:

- ▶ 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.
- ▶ 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.

### FY13-FY17 change over time analysis, salient findings:

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

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The full report of the Committee's analysis and findings of the salary equity study can be accessed online at:  
<http://www.ir.colostate.edu/data-reports/faculty/salary-equity/>

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## Single Year FY17

Female Faculty Salary as a Percent of Male	
Assistant Professor	98.8%
Associate Professor	99.9%
Full Professor	95.1%

Minority Faculty Salary as a Percent of Non-Minority	
Assistant Professor	98.5%
Associate Professor	94.6%
Full Professor	102.9%

### Percent of salary variance explained by each model:

- ▶ Assistant Professor – 96.3% Gender  
96.3% Minority Status
- ▶ Associate Professor – 83.5% Gender  
84.2% Minority Status
- ▶ Full Professor – 64.9% Gender  
64.2% Minority Status

The explanatory power of the models is inversely related to rank. For example, more than 1/3 of the salary variance at the Full Professor rank is left unexplained by the model. While such variance may indicate unintended bias it may also be attributable to multiple other factors that are not included in the analysis, such as scholarly achievement, teaching effectiveness/load or service contributions.

*The Salary Equity Committee recommends this analysis be repeated annually with the same methodology for three years and a review of the methodology be undertaken every five years thereafter, and that 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.*

*The Committee anticipates these findings will serve to encourage the ongoing dialogue on campus related to salary equity for tenured and tenure-track faculty.*

*Moreover, the Committee recommends that the model used for the faculty analysis be applied for other employee groups in the University's continued exploration of salary equity.*

## Trends over Time FY13-17

Assistant Professor		
	Female Faculty Salary as a Percent of Male	Minority Faculty Salary as a Percent of Non-Minority
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 by gender or minority status over time.

Associate Professor		
	Female Faculty Salary as a Percent of Male	Minority Faculty Salary as a Percent of Non-Minority
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 was no statistically significant main effect for gender, but a significant main effect existed for minority status in FY14, FY16 and FY17, where minority professors earned below their non-minority colleagues after controlling for department and years in rank.

Full Professor		
	Female Faculty Salary as a Percent of Male	Minority Faculty Salary as a Percent of Non-Minority
FY13	92.1%	101.1%
FY14	93.5%	101.7%
FY15	92.2%	103.9%
FY16	93.6%	102.7%
FY17	95.1%	102.9%

At the Full Professor rank, the models show no statistically significant differences by minority status, but a significant main effect by gender existed in each of the five years, where female professors earned less than their male colleagues after controlling for department and years in rank.

