

# Salary-Equity Study for the Rochester Institute of Technology: Executive Summary

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In spring 2015, the AdvanceRIT Resource Allocation Committee (RAC) of the Rochester Institute of Technology contracted with the Center for Higher Education at Ohio University to help the RAC design and implement a systematic procedure for conducting a faculty salary study, and to conduct an initial study of one year’s data. The dataset used for this study consists of information from a total of 699 tenured and pre-tenured RIT faculty. (Deans, faculty in endowed chairs, and working retirees were not included).

The main dependent variable used throughout this study was the natural logarithm of the annualized 2014 base salary. The following independent variables were used: years in rank; other RIT years; and dichotomous (or “dummy”) variables for gender, rank, two-digit CIP (Classification of Instructional Programs) code, 2013 performance rating, terminal degree, and AALANA (African American, Latino American, Native American) status. Tenure status was not included because it was highly correlated with rank and other variables, and thus it added little to the model while increasing standard errors.

It was found that discipline, rank, years in rank, and performance rating were significant predictors of salary, and that gender was not a significant predictor of salary.

## Methodology

To understand differences in salary, we estimated two regression models that iteratively introduced controls for measureable factors that should legitimately affect pay. The hierarchical approach enabled us to view the additive effect of each set of variables upon the fit of the model and observe how the coefficients and their statistical significance values changed with each addition.

	Model 1	Model 2
<b>Dependent Variable</b>	Ln(Salary)*	Ln(Salary)*
<b>Independent Variables</b>	Gender	Gender
	Rank	Ln(Benchmark)**
	CIP code	Time in Rank
	Time in Rank	Performance Rating
	Performance Rating	Other RIT Years
	Other RIT Years	Terminal Degree
	Terminal Degree	AALANA Flag
	AALANA Flag	

\* Natural log of annual salary (i.e., 9.5-month, full-time equivalent)

\*\* Incorporates discipline (captured in CIP code) and rank

In **Model 1**, the dependent variable was the natural log of annual salary (i.e., 9.5-month, full-time equivalent), and dummy variables for two-digit CIP code and rank were included among the independent variables. The model was first estimated with the dummy variable for gender as the only independent variable; then the following variables were successively added: rank, CIP code, time in rank, performance rating, other RIT years, terminal degree, and AALANA flag. In **Model 2**, the dependent variable was again the natural log of annual salary; but the independent variables for CIP code and rank were replaced with the natural logarithm of the benchmark salary, a figure that incorporates information on a faculty member’s discipline (captured in CIP code) and rank.

## Findings

The coefficient of each independent variable indicates its effect on the dependent variable, controlling for all the other variables included. As expected, discipline, rank, years in rank, and performance rating above “meets expectations” were significant predictors of salary with positive coefficients, while lack of a terminal degree was a significant predictor with negative coefficients. The estimated coefficients for the variable Female, while negative, were not statistically significant from zero in either model, indicating that the observed average salary difference by gender can be attributed to chance, as opposed to some systemic source.<sup>i</sup>

In cases where individual salaries are lower than expected, HR will investigate and will work with associated leadership to determine an appropriate path forward.

For this faculty salary equity study, the AdvanceRIT RAC set specifications and hired the Center for Higher Education at Ohio University to conduct the analysis, and in doing so established a procedure in which stakeholders can have high confidence. Important components of this process occurred in three stages: 1) Preparing for a faculty salary equity study, 2) Developing a contractual agreement, and 3) Conducting a collaborative analysis. RIT has conducted salary studies for faculty and staff in recent years and is committed to annual such studies. This study used a unique approach by expanding the number and breadth of people involved, working in partnership with the consultants to develop a salary model and report, and demonstrating transparency through a commitment to disseminating results. The AdvanceRIT RAC recommends that RIT continue to use and develop the collaborative process and resulting methodology to conduct annual faculty salary equity studies.

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<sup>i</sup> Random error is present in all measurement but should not impact findings as it will differ across groups and individuals, theoretically zeroing out. Alternatively, systematic error is indicative of something that is consistently present across groups or individuals and affects the distribution positively or negatively, thereby introducing bias.