

Webster University
Faculty Salary Equity Study 2006-07
January, 2007

Background

This salary study replicates previous studies conducted in March 1993 by a subcommittee of the Salary and Fringe Benefit Committee and in April 2000 by the Finance Office and the Office of Institutional Research, in conjunction with that subcommittee. The 1993 study, using regression analysis, resulted in an adjustment to the salaries of female Full Professors of +\$3,000 and female Associate Professors of +\$5,000. The 2000 study, which followed the combined models of the 1993 study and *Pay Checks: A Guide to Achieving Salary Equity in Higher Education*, resulted in an adjustment of +\$1,145 to any Associate Professor (male or female) whose salary was lower than the mean salary predicted by the regression analysis. A preliminary study of 2005-06 faculty salaries also occurred in April of 2006 without findings and was referred to the 2006-07 Equity Study.

Description of the Sample

The initial cohort, consisting of 161 faculty members whose salaries were included in the 2006-07 Equity Study, was defined as follows:

1. Full-time faculty
2. Ranked faculty (assistant, associate, full professor)
3. Status track faculty only
4. Excludes visiting faculty in full-time slots
5. Excludes administrators (Dan Viele, Jim Staley, Deans)
6. Excludes full-time faculty on un-paid leave (Christina Shmigel)
7. Excludes full-time faculty on temporary administrative assignment (Kit Jenkins)
8. Conversion rate for 12 month salary to 9 month equivalent is 9/11 or .818

Data on Years of Service and Years at Rank were also included in the study.

2006-07 Salary Analysis

Outliers: Three outliers were identified and removed from the data: one professor for previous administrative capacity and two associate professors for salary amounts that were three standard deviations above the mean.

Independent Variables: For the revised cohort of 158 faculty, the independent variable shown to be the strongest predictor of salary was Years of Service (R-squared = .8307) versus Years at Rank (R-squared = .6866).

A visual inspection for faculty or groups of faculty that had significant differences from the majority resulted first in the removal of the salary data for all faculty in the

Department of Management, then in the removal of the entire School of Business and Technology from the study. Inspection revealed that the full-time faculty in the three departments of the School of Business and Technology were clearly distorting the data. The resulting cohort in the study consisted of 124 faculty members, 64 of whom were female. The resulting R-squared for Years of Service was a stronger .9031, with the R-squared for Years at Rank being .7304.

Regression Analysis

Following the procedures used in the 1993 and 2000 studies, the male faculty data for each rank were used to create formulas to predict male salary levels, based on years of service. Salary equity by gender was then examined by applying the male salary formula to the females' salaries at each rank level. The predicted salary was then subtracted from the actual salary to produce a residual. Tables 1 & 2 illustrate the results of this procedure before the School of Business and Technology (SBT) was removed from the study. Tables 1b & 2b show the results after the removal of SBT. Corresponding Scatter Plot charts are also attached.

Summary and Recommendations

In previous studies, if a predicted salary residual was -\$1,000 or more it was considered significant and was acted upon. The only rank for which there was a negative residual of \$1,000 or more was Full Professor, where the average residual for females was \$1,013 less than what was predicted based on the male faculty salary formula. It is recommended that \$1,013 be added to the salaries of all full professors with a negative residual. It is further recommended that the salaries of faculty in the SBT be visually examined to determine if any gender inequity exists within that school and small sample.

Attachments: Table 1: Descriptive Statistics – 3 Outliers Removed

Table 2: Salary Residuals by Gender by Rank – 3 Outliers Removed

Table 1b: Descriptive Statistics – SBT and 3 Outliers Removed

Table 2b: Salary Residuals by Gender by Rank – SBT and 3 Outliers Removed

Plots: 3 Outliers Removed

Plots: SBT and 3 Outliers Removed.

Addendum: Article from *Inside HigherEd.com*, “Faculty Salaries Up 3.4%”, March 6, 2006.

Office of Institutional Research

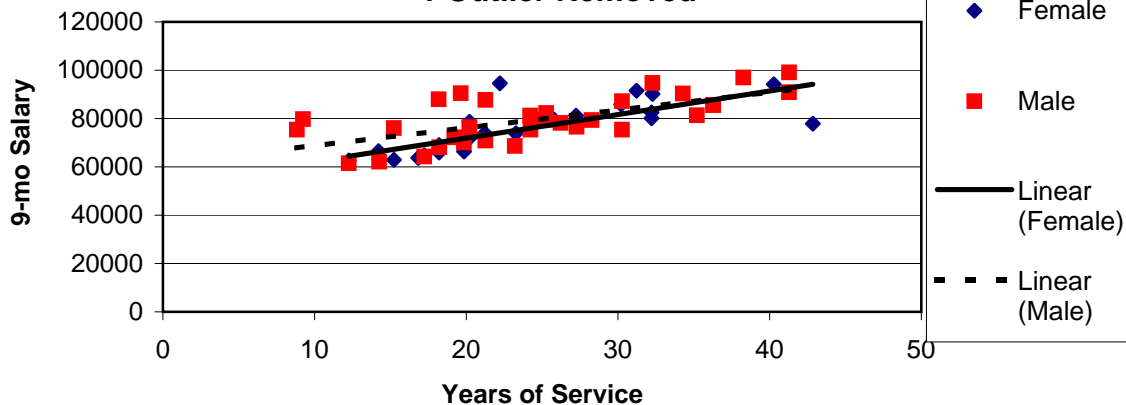
1/11/07

August 30, 2007 update

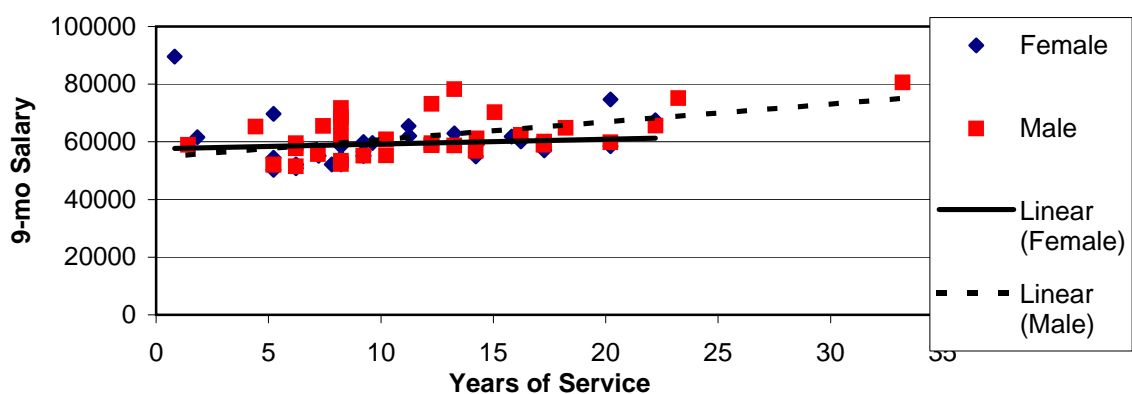
With FY 2007-2008 full-time faculty contracts, full professors whose actual salaries were less than the predicted salary were adjusted \$1,013. A total of twenty-five (24) faculty

(12 female, 12 male) were included in the adjustment. The manual inspection of the School of Business and Technology full professors resulted in one (1) male professor receiving the adjustment.

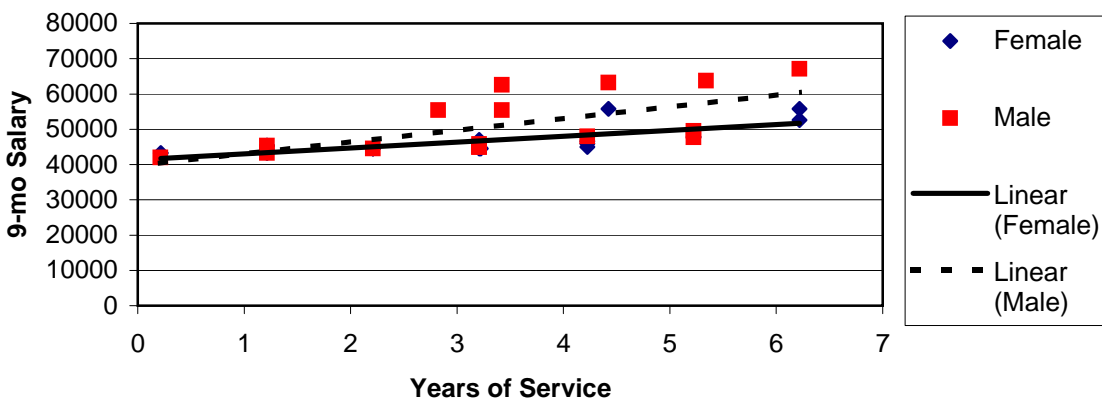
**Professors 2006-07 Salaries by Years of Service
1 Outlier Removed**



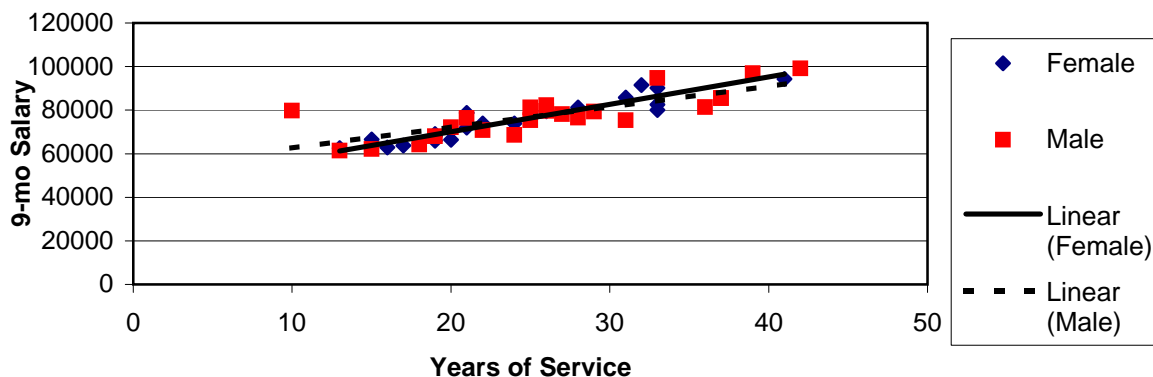
**Assoc. Professors 2006-07 Salaries by Years of Service
2 Outliers Removed**



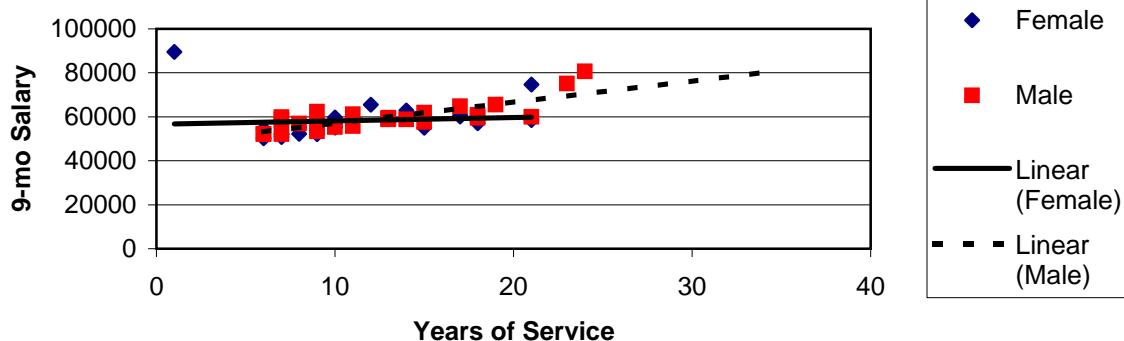
ALL Assistant Professors 2006-07 Salary by Years of Service



**Revised: Professors 2006-07 Salary by Years of Service
SBT and 1 Outlier Removed**



**Revised: Assoc. Professors 2006-07 Salary by Years of Service
SBT and 2 Outliers Removed**



**Revised: Asst. Professors 2006-07 Salary by Years of Service SBT
Removed**

