Proposed Methodology for Internal Faculty Salary Equity

Southern Illinois University Edwardsville

Faculty Senate Salary Equity Committee

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1. Introduction

In 2007 the Salary Equity Committee called for a follow-up to the 1990 gender equity study conducted by SIUE to examine faculty salaries. Unfortunately the call-to-action was not heeded and internal equity fell by the wayside. Whereas the 2007 plan called for

[1] Members of the Salary Equity Committee included Ariel Belasen (Business, chair), Carly Hayden Foster (Arts and Sciences), Karen Kelly (Nursing), Erik Kirk (Education), Soondo Kweon (Engineering), Dwight McLeod (Dental Medicine), Matt Paris (Library), and Erin Timpe (Pharmacy).

annual analyses, we are proposing a new action plan that will require an internal study to be completed in conjunction with the external study at a minimum of every three years. While the external equity study will be completed by the Salary Equity Committee, this plan for the internal equity study will be conducted by Institutional Research. The following sections lay out the framework for the study.

2. Proposal

Given the concerns expressed above, we offer the following proposal for future gender and race equity studies (hereafter referred to as the "internal equity study") concerning faculty salaries at SIUE.

A. The salary equity study will include the base faculty salary of all full-time non-represented faculty employed at SIUE on October 15th of the fiscal year in which the equity study is performed. The following groups are ineligible for participation in the equity study based on their status as of the October 15th date referenced above:[2]

   a. Those in the first year of an appointment.
   b. Instructors subject to the terms of a collective bargaining agreement
   c. Emeritus or retired faculty
   d. Part-time faculty
   e. Full-time faculty who fail to meet minimum performance standards (see Section 3)

[2] This is not an all-inclusive list, but mentions the major groups that are excluded from the study. Final determination of inclusion in the equity study rests with the Office of the Provost.

B. We call for the internal equity study to be carried out in coordination with the external equity study. The internal equity study will be conducted by Institutional Research whereas the external equity study will be carried out by the Salary Equity Committee.

C. Methodology

a. Institutional Research will collect data on faculty salaries by rank and discipline.
b. Monthly salaries will be computed by taking annual salaries and dividing them by a base of 12 (or 9 for 9-month contracts).
c. All monthly salaries will be adjusted by a factor of 2% per year within rank to account for annual raises over time.[3]
d. Adjusted salaries will be compared within each discipline across gender and racial lines either through simple comparisons or through a multivariate regression analysis using categorical factors for gender (0 = male; 1 = female), race (0 = white; 1 = nonwhite), and a joint gender-race factor (0 = white male; 1 = other). If statistically significant differences are found, the study will call for funding to be allocated by the university to resolve the inequity.

[3] NOTE: We recommend that the Office of Institutional Research conduct a study to determine the accuracy of the 2% raise supposition.

e. Funding allocated to the internal equity study will be distributed on an availability basis based on degree of inequity. For example, if it is found that two faculty members face inequity such that one individual faces $1,000 of inequity while another faces $400 of inequity, then if $700 in total is allocated to the faculty for internal equity, each individual will receive a weighted share of the $700, such that the first individual will receive $\frac{\$1000}{(\$1000+\$400)} * \$700$, or $500, and the other will receive $\frac{\$400}{(\$1000+\$400)} * \$700$, or $200.

D. The following should occur:

a. The next internal equity study should be conducted as soon as possible after approval and then conducted in conjunction with the external equity study at a minimum of once every three years.

b. A full report of the study methods and findings will be made public to the university community.

3. Minimum Performance Standards for Receiving Salary Equity Adjustments

Faculty members who receive an overall performance evaluation of an overall rating of *Unsatisfactory* (or equivalent) over the most recent three-year average shall be ineligible for salary equity adjustments.

4. Appeals

Appeals will only be granted in the case of error in either the individual's current salary or the target salary calculation. To appeal their result of the equity study the individual must provide written evidence of the error to his or her dean within 60 days of notification of the adjustment. If the dean or his/her designee decides that an error has been made, the appeal will be forwarded to the Office of the Provost, where, in consultation with the Office of Institutional Research, a final decision on the appeal will be made. If the individual wishes to appeal the result beyond the dean, the appeal must be sent to the Office of the Provost within 60 days of notification from the dean. The decision of the Provost's Office will be final.

Appendix: Prior Study

Summary of 1990 Study

Overall, the 1990 study used an appropriate methodology (as per guidelines set forth by Lois Haignere) and offered valid interpretation. In fact, this 1990 study is superior in several ways when compared to many current studies from other universities. For example, the report correctly dismisses statistical significance as an inappropriate means of interpreting the results of census research. Also, the committee was insightful in conducting a pre-test concerning "Years in Current Rank" to look for evidence of gender discrimination. Further, we applaud the efficient operationalization of market equity concerns with the variable, "Salary Factor."

The 1990 study concerned gender equity in pay on a university-wide basis, so we are only interested in the small part of it specifically dealing with "Statutory Rank, Full-Time, Instructional Faculty." The study applied a multiple regression model with Contract Monthly Salary as the dependent variable. Independent variables included Tenure Status (not-eligible, tenure-track, tenured), Rank (instructor, assistant professor, associate professor, professor), Administrative Title (yes, no), Highest Degree (bachelors, masters, MFA, MLA, doctorate), Years in Highest Degree, Years in Current Rank, Salary Factor for Discipline, and Gender.

Three models were run. The first included all independent variables except for gender, the second all independent variables including gender, and the third all independent variables including gender and all gender interaction terms. Model 1 explained 81% of the variation in monthly salary, model 2 also 81%, and model three 82%. As model 2 found that being female (on average and all else equal) only cost workers about $4.50 per month (unstandardized coefficient for gender of -4.54), the study concluded that no significant gender inequity in salaries was evident for the population. However, the study did recognize that model 3 suggested that substantial inequities were present within different segments of the study population (explanation below). The "no finding" conclusion for model 2 occurred because female advantages in some segments cancelled out male advantages in others.

Substantive Comments from the 2007 Equity Task Force

I. The main substantive criticism we have of this study is that it included non-tenure track instructors. This had serious consequences on the results of the model as well as the conclusion of the committee. The results of model 3 demonstrate that being female actually aided non-tenure track instructors (on average and all else equal) by over $1,000 per month (unstand. coeff. of 1036.53). Had the study population been limited to tenure-track employees, the impact of gender in model 2 would have been increased. In other words, the inclusion of those not eligible for tenure effectively cancelled out some amount of gender inequity experienced by tenure-track and tenured faculty with graduate degrees.

II. The modeling of the statistical research failed to identify average differences in salary between females and males absent control variables. Consequently, we were left wondering just how much more money males made on a monthly basis relative to females overall. We do understand that almost all of this gender inequality in pay was attributable to the influence of control variables and, therefore, equitable by definition. However, we find the absence of this information to be problematic.

III. Three of the independent variables used in the 1990 study have the potential to “hide” inequity related to gender discrimination. One of these variables, Years in Current Rank, was adequately addressed and no evidence of gender discrimination was found. Two others, however, Rank and Administrative Title, were not addressed. If gender discrimination had been occurring in terms of either variable, then some salary inequality attributable to gender would be attributed to that variable.

Technical Comments from the 2007 Equity Task Force

I. Two of the independent variables used in the study, Years in Highest Degree and Years in Current Rank, demonstrate a potentially problematic overlap. Because all of the years measured in Years in Current Rank are also included as Years in Highest Degree, those years are accounted for by two different variables. While this problem might not have any effect on the magnitude of the gender coefficient, it could produce some curvilinearity to the distribution of the dependent variable and compromise the validity of the linear regression model.

II. In a related vein, the study did not mention whether or not checks for curvilinearity in the distribution of the dependent variable were conducted. While it is common for such checks to be omitted from reports if they do not find any problem, we would be more comfortable not having to make such an assumption here. All the assumptions of linear regression should be tested for violation and the results of these tests should be presented in the report. If violations are found, proper corrections should be made.

III. One of the independent variables in the study is the Salary Factor of the discipline in which the employee teaches. As we are still unsure of what these salary factors will be (or even what data they will be based on), any gender equity study using this independent variable will have to wait for the external salary equity study for operationalization. In fact, we may have to wait until the general salary equity adjustments are made to validly get at gender equity because any general equity adjustments may fall on males and females disproportionately. If we do a gender equity study before external equity adjustments are made, the conclusions of the study cannot be assumed to be valid for salary conditions as they exist after external equity adjustments.