

SAINT LOUIS UNIVERSITY
FACULTY SENATE
GENDER EQUITY TASK FORCE

QUANTITATIVE COMMITTEE
FULL-TIME FACULTY GENDER PAY EQUITY ANALYSIS
AS OF FEBRUARY 2, 2016

Quantitative Committee Co-Chairs:

Leslie Hinyard (Center for Health Outcomes Research)
Allison Miller (College of Arts and Sciences)

Data Analysis Conducted By:

Mercer (www.mercer.com)

Quantitative Committee Members:

Bidisha Chakrabarty (John Cook School of Business)
Sue Heaney (School of Medicine)
Rebecca Hyde (University Libraries)
Donald Jacobs (School of Medicine)
Michelle Sabick (Parks College of Engineering and Aviation)
Gretchen Salsich (Doisy College of Health Sciences)
Travis Threats (Doisy College of Health Science)
Angela Sharkey (School of Medicine)
Constance Wagner (School of Law)

Gender Equity Task Force Co-Chairs

Angela Sharkey (School of Medicine)
Constance Wagner (School of Law)

FEBRUARY 2 2017

SUMMARY

This report sets forth the results of the full-time faculty gender pay equity analysis conducted by the Saint Louis University (“SLU”) Faculty Senate Gender Equity Task Force (“GETF”) Quantitative Committee in 2016, in collaboration with Mercer, a human resources consulting company retained by SLU, and the SLU Office of the Provost. This report answers the following question: Are full-time female faculty members on average paid less than comparable full-time male faculty members employed at SLU? The data provided by SLU administrators, and statistical analyses conducted by Mercer and interpreted by the SLU GETF Quantitative Committee, indicate a pervasive gender pay gap at SLU. After controlling for variables that might explain differences in pay, female full-time faculty members are paid less than male full-time faculty members at each rank (full professor, associate professor, assistant professor, instructor, and researcher) and regardless of tenure status (tenured, tenure track, non-tenure track) in each College and School throughout the university, with one exception for the School for Professional Studies and with another exception for tenured associate professors employed by SLUCare (Figs. 1-3). Our recommendations based on the results of this analysis are set forth in the “Recommendations” section at the end of this report.

FOREWORD

This report was produced by the Quantitative Committee of the Saint Louis University Gender Equity Task Force. The SLU GETF was formed as a project of the SLU Faculty Senate in Spring 2015. The SLU GETF received the following charge from SLU President Fred Pestello:

- a. To examine data in multiple areas of university activity such as climate, recruitment, hiring and appointment of faculty, workload distribution, allocation of leadership responsibilities, compensation and promotion to assess whether faculty are treated equitably and are not disadvantaged because of their gender;
- b. To determine if there are areas of perceived gender inequity among the faculty with an awareness that gender may intersect with other issues and identities; and
- c. To prepare a report on the findings and conclusions of the task force that will include a plan, with recommendations, to address any inappropriate gender differences.

The SLU GETF is composed of full-time faculty members who represent each of the schools and colleges within the university. The work of the SLU GETF is conducted through two committees, the Quantitative Committee and the Perceptions Committee. The goal of the Quantitative Committee is to provide a quantitative evaluation of gender equity indicators among full-time faculty at Saint Louis University. The goal of the Perceptions Committee is to explore perceived differences in full-time faculty experience based on gender at Saint Louis University. This report is one of several projects of the SLU GETF that are currently ongoing.

This report sets forth the results of data collection and analysis by the Quantitative Committee on the question: Are full-time female faculty members on average paid less than comparable full-time male faculty members employed at SLU? To our knowledge, this report is the first of its kind since SLU currently does not conduct full-time faculty gender pay equity studies. The SLU GETF recommends, among other things, that the university conduct a faculty gender pay equity study of this type on at least a biennial basis.

The Quantitative Committee expresses its gratitude to Provost Nancy Brickhouse and Assistant Provost Stacey Barfield Harrington for their support of this project. The Quantitative Committee also thanks Faculty Senate President Douglas Williams for his ongoing guidance and advice on this project.

The following members of the SLU GETF contributed to the writing of this report: Bidisha Chakrabarty, Leslie Hinyard, Rebecca Hyde, Allison Miller, Michelle Sabick, Gretchen Salsich, Angela Sharkey, and Constance Wagner.

BACKGROUND

As noted in the Foreword, the SLU GETF was charged with, among other things, “to examine data in multiple areas of university activity such as...compensation...to assess whether faculty are treated equitably and are not disadvantaged because of their gender.” Based on this language, the Quantitative Committee prioritized conducting a gender pay equity analysis of full-time faculty, which is commonly undertaken on a periodic basis at many other private and public U.S. universities. Prior to the formation of the SLU GETF, the SLU administration had engaged Mercer (www.mercer.com), a human resources consulting company, to do a market analysis of faculty salaries in response to a request for such information from the SLU Faculty Senate (“Mercer Phase 1”). In addition, the SLU administration requested that Mercer conduct a study of faculty pay equity (“Mercer Phase 2”). Since the SLU administration had already retained an outside consultant to work on the two salary studies mentioned above (Mercer Phase 1 and Mercer Phase 2), it was decided that the SLU GETF would use Mercer’s data analytics team to conduct the necessary statistical analysis. The results of such analysis would be made available to the SLU GETF, which would interpret the findings in light of its committee charge. The Quantitative Committee collaborated with ongoing university processes in this regard, rather than performing a similar analysis in parallel. The co-chairs of the Quantitative Committee, as well as the co-chairs of the SLU GETF, participated in the planning process for Mercer Phase 2 to ensure the analysis addressed the charge of the SLU GETF to examine gender equity in base salary of full-time faculty (see “Limitations” section).

The co-chairs of the Quantitative Committee and the co-chairs of the SLU GETF met, by phone and in person, with representatives of the SLU administration and the Mercer analytic team on five separate occasions to discuss methodology and results of the study. The methodology originally proposed by the Mercer analytic team for Mercer Phase 2 was designed to address the SLU administration’s faculty pay equity concern: to identify negative outliers, i.e. faculty members whose pay fell more than two standard deviations below the predicted pay based on defined attributes. However, the original Mercer methodology did not address the specific research question posed by the SLU GETF. For that reason, the SLU GETF requested an additional analysis be performed using a methodology consistent with gender pay equity studies at other universities. After discussion with the SLU administration, the Mercer analytic team, the Quantitative Committee co-chairs, and the co-chairs of the SLU GETF, it was decided that Mercer would conduct two separate analyses for Mercer Phase 2. The first was the original planned analysis for the SLU administration, and the second was an analysis designed to answer the research question posed by the SLU GETF.

Specifically, the SLU GETF sought to compare average base pay among female and male full-time faculty members working in the same job. Both SLUCare and Non-SLUCare faculty members were included in the analysis. Comparisons of average base pay were made among female and male full-time faculty members at each rank (full professor, associate professor, assistant professor, instructor, and researcher), for each tenure status (tenured, tenure track non-tenure track), and for each individual unit in the university (e.g., College of Arts and Sciences, Law School, etc.). Although the charge given to the SLU GETF related to questions of gender

and not of race, the SLU GETF asked that race/ethnicity be included as a variable in the multiple regression model used at its request for Mercer Phase 2. This request grew out of an awareness by the SLU GETF that those at the intersection of race/ethnicity and gender may experience additional negative drivers of pay.

The methodology employed by Mercer for the SLU GETF analysis (described below) was agreed upon by the Mercer analytic team, the co-chairs of the Quantitative Committee, the co-chairs of the SLU GETF, and representatives of the SLU administration. This report describes the methodology used in Mercer Phase 2 to address the research question regarding gender pay equity posed by the SLU GETF. It does not discuss the methodology used in Mercer Phase 2 to address the SLU administration's pay equity question.

METHODOLOGY

Mercer Phase 2 included only data for full-time faculty members at SLU following the charge given to the SLU GETF. The data and the analysis were stratified into two subgroups: SLUCare faculty members (those with direct medical care responsibilities within the School of Medicine) and Non-SLUCare faculty members (everyone else or "all other faculty"). The results that follow are presented in these two broad categories. In addition, Non-SLUCare data are presented at the School/College level.

The SLUCare salary analysis was based on total pay. SLUCare faculty members receiving pay services from external sources (e.g. the Veterans Administration) and those on phased retirement were excluded from the analysis. The Non-SLUCare analysis was conducted on base pay only. Stipends for administrative work or other salary stipends for Non-SLUCare faculty were not included in the analysis.

Data were extracted from the SLU Banner system by staff members in the SLU Office of the Provost and provided to Mercer. The data included in the analysis were:

- SLU faculty salaries on February 2, 2016: Total pay (SLUCare) or base salary (Non-SLUCare) (primary outcome variable)
- Contract Length
- Age (proxy for experience)
- Length of SLU Service
- Time in Rank
- Time in Tenure
- Tenure Status (Tenured, Tenure Track, Non-Tenure Track)
- Job Title
- Percent of Actual Relative Value Units (wRVU) to FPSC Benchmark (SLUCare only)
- Academic Discipline or Medical Specialty
- Natural Logarithm of External Market Pay Median
- Gender
- Race/Ethnicity

Statistical Analysis

Mercer employed an ordinary least squares (OLS) regression method with forward, stepwise entry. The dependent variable was the natural logarithm of salary. Two separate models were developed, one for SLUCare full-time faculty and one for Non-SLUCare full-time faculty. Gender was the primary predictor variable of interest and all analyses were adjusted for the variables described above. The full description of methodological approach, as described by Mercer, is provided in Appendix I.

RESULTS

Description of full-time Saint Louis University employees included in the Mercer Pay Equity Analysis (Mercer Phase 2). 376 full-time SLUCare faculty members were included in the analysis. Of these, 37% were female and 29% were persons of color (Asian, Black, Hispanic, Other Non-White). 973 full-time Non-SLUCare faculty members were included in the analysis. Of these, 48.6% were female and 20.3% were persons of color (**Table 1**).

Table 1. Description of Faculty included in Mercer Pay Equity Analysis (Mercer Phase 2)						
Segment	Head-count	% Female	% People of Color	% Asian	% Black	% Hispanic
SLUCare	376	37.0%	29.0%	20.5%	2.7%	4.3%
Non-SLUCare	973	48.6%	20.3%	11.6%	4.3%	2.7%
Total	1,349	45.4%	22.7%	14.1%	3.9%	3.1%

Regression analyses. Regression models were adjusted for all 12 covariates listed above; however, only regression coefficients for gender and race were provided by Mercer to the SLU GETF. The R^2 value indicates the amount of variance in salary explained by the model. Generally, an R^2 value of .80 is desired; however, an R^2 value over .70 is acceptable. Given the lack of information on workload and performance metrics for the faculty at SLU, an R^2 value lower than .80 is expected. Workload and performance metrics are not collected in a standardized way across the university and consequently were not available for inclusion in the model and analysis (see “Recommendations” section below).

For SLUCare faculty, 75% of the variance in salary is due to factors included in the model: contract length, age (proxy for experience), length of service, time in rank, time in tenure, tenure status, job title, percent of actual relative value units to FPSC Benchmark, academic discipline or

medical specialty, external market pay median, race/ethnicity, and gender. In the SLUCare model, average female pay is 6.3% lower compared to pay for males (Table 2).

For Non-SLUCare faculty, 70% of the variance in faculty salary is due to factors included in the model. The remaining variance cannot be explained by variables included in this study. In the Non-SLUCare model, average female pay is 5.6% lower compared to pay for males (Table 2).

Table 2. Regression results for Non-SLUCare and SLUCare models (only race/ethnicity and gender variables are reported)¹

	Non-SLUCare	SLUCare
R^2	0.7003	0.7538
Asian	-0.0260	-0.0210
Black	0.0120	0.1100
Hispanic	0.0280	0.0620
Two or More Races	-0.1300	0.1200
Hawaiian	0.0220	n/a
Other Race/Ethnicity	0.2000	-0.0650
Female	-0.0560	-0.0630

¹ Only the regression beta weights for race/ethnicity and gender are reported in Table 2 as the SLU GETF was not provided with additional regression weights. The regression weights of other included variables can be considered as adjustment factors and are not directly related to the interpretation of the beta weight for gender. Beta weights are the regression coefficients: for every one unit increase in continuous variable X there is a beta increase in Y. For gender, since it is dichotomous, male is reference group and, therefore the value of Y for male is simply the average male salary (adjusted for the other factors in the model), while the beta weight for gender in the SLUCare model is - 0.063, meaning that women earn 6.3% less money than men. In the Non-SLUCare model, the beta weight is - 0.056, meaning that women earn 5.6% less

Gender pay gap. The gender pay gap for each College/School with more than 10 faculty members for each gender is presented in Table 3. Colleges/Schools with fewer than 10 faculty members per gender are not reported as separate units. Male faculty members were the reference group; therefore, a negative percentage indicates the average percent reduction in salary for female faculty members compared to male faculty members.

Appropriate statistical methodology was utilized to handle the non-normally distributed salary data. A full explanation of the statistical methodology was provided by Mercer and is available in Appendix I.

SLUCare Faculty gender pay gap. After adjustment for all other covariates utilized in the model, female faculty members working in SLUCare units earn about 6.3% less than their male counterparts (**Tables 2, 3; Figure 1**). This difference is statistically significant: the observed gender pay gap is not due to chance. A negative pay gap between female and male faculty members in SLUCare was detected in six out of seven SLUCare position types compared. In one position in SLUCare (tenured associate professors) female faculty members are paid more than male faculty members (**Table 4; Figure 2**).

Non-SLUCare Faculty gender pay gap. After adjustment for all other covariates, female faculty members in Non-SLUCare units earn about 5.6% less than male faculty members (**Table 2**). This difference is statistically significant: the observed gender pay gap is not due to chance. Nine out of ten Colleges/Schools within Non-SLUCare report the average salary of full-time female faculty to be less than the average salary for full-time male faculty (**Table 3, Figure 1**). The disparity ranges from female faculty members making 2.04% less than male faculty members in the College of Arts and Sciences to making 10.72% less in the School of Law. The School for Professional Studies reports, on average, female faculty making 2.10% more than male faculty. A negative pay gap between female and male faculty members in Non-SLUCare was detected in nine out of nine Non-SLUCare position types compared, as well as for clinical faculty (**Table 4; Figure 3**).

money than men. It is not possible for us to report the beta weights for all variables included in the model because those data were not provided to the GETF by Mercer.

Table 3. Gender pay gap (%) by College/School. A negative percentage indicates the average percent reduction in salary for the same job for female faculty members compared to male faculty members.

College/School	% Pay Gap
College of Arts and Sciences	-2.04
Doisy College of Health Sciences	-4.03
John Cook School of Business	-7.77
Parks College of Engineering, Aviation, & Technology	-6.70
College for Public Health and Social Justice	-6.70
School for Professional Studies	2.10
School of Education	-3.70
School of Law	-10.72
University Libraries	-4.39
School of Medicine (Non-SLUCare)	-8.08
School of Medicine (SLUCare)	-6.30

Table 4. Gender pay gap (%) by position type for Non-SLUCare and SLUCare. A negative percentage indicates the average percent reduction in salary for female faculty members compared to male faculty members.

	Tenure Title	Assistant Professor		Associate Professor		Professor		Instructor	Research	Clinical or other
Non-SLUCare	Tenured	-6.8%	-4.8%	-1.7%	-2.5%	-7.1%	-11.7%	-10.7%	-20.7%	-8.3%
	Tenure Track			-9.7%						
	Non-Tenure Track	-2.0%		-3.7%		-30.7%				
SLUCare	Tenured	-0.9%	-6.0%	13.5%	-0.8%	-14.1%	-6.5%	-27.0%	-	-
	Tenure Track			-						
	Non-Tenure Track	-7.0%		-2.1%		-5.6%				

CONCLUSIONS

1. **The factors identified in the Mercer study explain variation in pay reasonably well (Table 2).** For SLUCare faculty, the model explained 75% of the variation in the data, and for Non-SLUCare faculty, the model explained 70% of variation in the data. The factors used in the study include base salary (total compensation for SLUCare), contract length, age (proxy for experience), length of service, time in rank, time in tenure, tenure status, job title, percent of actual relative value units to FPSC Benchmark (SLUCare only), academic discipline or medical specialty, external market pay median, race/ethnicity, and gender.
2. **Female gender is negatively associated with pay in both SLUCare and Non-SLUCare models (Table 2).** Both models generated by the Mercer Phase 2 pay equity study indicate that female gender predicts lower pay after adjusting for rank, tenure status and other variables that are considered drivers of pay.
3. **Female full-time faculty members are paid less than male full-time faculty members at the same rank and with the same tenure status in 10 out of 11 units in the university (Table 3; Figure 1).**
 - Female faculty members are paid less than male faculty members at the same rank and with the same tenure status in the College of Arts and Sciences, Doisy College of Health Sciences, John Cook School of Business, Parks College of Engineering Aviation, and Technology, College for Public Health and Social Justice, School of Education, School of Law, University Libraries, School of Medicine (Non-SLUCare), and School of Medicine (SLUCare).
 - Colleges/Schools exhibit varying degrees of differences in faculty salaries between female and male faculty members at the same rank and with the same tenure status, ranging from the College of Arts and Sciences, where female faculty pay is 2.04% less than male faculty pay, to the School of Law, where pay for female faculty members is 10.72% less than male faculty members.
 - There is only one unit where female faculty members are paid more than male faculty members at the same rank and with the same tenure status: the School for Professional Studies.
4. **Female full-time faculty members are paid less than male full-time faculty members at the same rank and with the same tenure status in 15 out of 16 job categories for which data were compared.** These categories include full professors, associate professors, assistant professors, instructors, and researchers, in tenured, tenure track and non-tenure track positions (Table 4; Figures 2, 3).
 - The differences in pay between female and male faculty members at the same rank and with the same tenure status range from a low of -0.90% less (for SLUCare tenure track assistant professors) to a high of -30.7% less (for Non-SLUCare non-tenure track full professors).
 - There is only one job category in which female faculty members are paid more than male faculty members at the same rank and with the same tenure status: female SLUCare tenured associate professors earn 13.5% more than their male counterparts.

5. **The data indicate that race/ethnicity is negatively associated with pay in the SLUCare model in two out of five race/ethnicity categories (“Asian” and “Other”).** In the SLUCare model “Black”, “Hispanic”, and “Two or More Races” are not negatively associated with pay. **The data indicate that race/ethnicity is negatively associated with pay in the Non-SLUCare model in two out of six categories (“Asian” and “Two or More Races”).** In the Non-SLUCare model, “Black”, “Hispanic”, “Hawaiian” and “Other” are not negatively associated with pay (Table 2). It is possible that those at the intersection of gender and other minority status identities may be further disadvantaged. This dataset did not allow us to analyze the intersection of gender and race/ethnicity due to the small sample sizes of these groups at SLU.

LIMITATIONS

The information provided in the tables was not collected or analyzed directly by the Quantitative Committee. The SLU Office of the Provost provided full-time faculty salary data to Mercer. Mercer conducted the multiple regression analysis described above in the Methodology section. The results of the analysis, including the final demographics and regression weights, were provided by Mercer to the Quantitative Committee. While we believe in the integrity of the process and the results that were obtained and that are reported here, we note that there are limitations to this approach. We list a few key limitations here with the hope that such information will prove useful in conducting future faculty gender pay equity studies at SLU.

1. **Administrative roles:** Information about administrative responsibilities and administrative pay was not included in the data set used for the statistical analysis. Therefore, there is no information presented in this report on possible pay disparities in administrative workload compensation.
2. **Measuring workload:** At the time of the statistical analysis discussed in this report, the university had no standard measure of faculty workload in place. Therefore, this study does not use a direct measure of workload in the regression model. This is potentially important both in terms of the **amount** of work assigned to individual faculty members (numbers of courses, class sizes, service commitments, funded projects), as well as the **nature** of the work assigned (e.g., research assignments with external funding, vs. committee work or disparate teaching loads).
3. **Measuring productivity:** At the time of the statistical analysis discussed in this report, the university as a whole had no standard measure of faculty productivity in place, although SLUCare used Relative Value Units to measure clinical productivity. Therefore, this study does not use a direct measure of faculty productivity in the regression model. Although the covariates used (determined primarily by available data) represent various measures that are expected to correlate with productivity, there was no direct measure of productivity available to us at the time of the analysis.
4. **Small sample sizes:** For Colleges/Schools with a headcount under 30, small sample sizes limit the stability of regression coefficients. The regression coefficients for the race/ethnicity categories may also be unstable due to small sample sizes within these groups. In addition, the

results of pay disparities in smaller units within the university, namely the various Centers (Center for Advanced Dental Education, Albert Gnaegi Center for Healthcare Ethics, Center for Outcomes Research, and the Center for Sustainability) are not reported here. Similarly, the results of pay disparities in units with fewer than ten faculty members of one gender, namely the School of Nursing, are not reported here to maintain confidentiality of faculty within those units.

5. Base pay versus total pay: The SLUCare faculty salary analysis was conducted using total pay. The Non-SLUCare faculty salary analysis was conducted using base salary only. Different outcome pay variables for SLUCare and Non-SLUCare faculty are attributable to the differences in compensation mechanisms for clinical (i.e. SLUCare) faculty and non-clinical faculty. Thus, it is not clear whether the analyses for SLUCare faculty and Non-SLUCare faculty are directly comparable. For more information, see Appendix I.

6. Lack of data on promotion rates: Mercer Phase 2 does not address differences in promotion rates between female and male faculty members, even though rank is an important predictor of salary. If there are differences in the promotion rates between women and men, real differences in salary attributable to gender may be masked in the results presented. To take one example, if some women are promoted to full professor at lower rates than men, the data will reflect lower pay for such women. While such differences in treatment are based on gender, the model, which controls for rank, will not reveal the extent of the salary disadvantage based on gender experienced by such women.

ADDITIONAL RESEARCH QUESTIONS:

The following additional research questions are raised by the results of the multiple regression analysis set forth in this report. These questions cannot be answered at this point in time based on the information made available to the Quantitative Committee. However, such questions should be considered and addressed in future faculty gender pay equity studies at SLU.

1. What are the reasons that gender is negatively associated with faculty salaries in such a pervasive and seemingly systematic way? The Mercer Phase 2 multiple regression analysis reveals that gender is negatively associated with faculty salaries in both the SLUCare and the Non-SLUCare models. This negative association holds across all ranks and tenure categories, with the exception of tenured female associate professors in the SLUCare model. This negative association also holds across all Colleges/Schools, with the exception of the School for Professional Studies in the Non-SLUCare model.
2. What additional variables not included in the Mercer Phase 2 models might account for the difference in salaries noted between female and male faculty members? The Mercer Phase 2 multiple regression model for SLUCare faculty shows that 75% of the variation in salaries is attributable to the variables included in the model. The Mercer Phase 2 multiple regression model for Non-SLU Care faculty shows that 70% of the variation in salaries is attributable to the variables included in the model.

3. Do differences in performance and productivity, variables not included in the Mercer Phase 2 models, explain the variation in faculty salaries that cannot be attributed to the variables that were included? How will performance and productivity be quantified across the university in the future? How will any such data be used in future faculty gender pay equity studies?
4. Do differences in workload focus (i.e. the distribution of faculty time across teaching, scholarship, and service activities), a variable not included in the Mercer Phase 2 models, explain the variation in faculty salaries that cannot be attributed to the variables that were included? If female faculty members are focusing their efforts in areas such as teaching and service, does that lead to lower salaries, indicating that teaching and service activities are being systematically undervalued by the university? How will workload and the valuation of teaching, scholarship and service be quantified across the university in the future? How will any such data be used in future faculty gender pay equity studies?
5. Do differences among female and male faculty members in starting pay, a variable not included in the Mercer Phase 2 models, impact salary differences at later stages of their careers? Do such differences exist at the point of hire? Do such differences, if any, stay constant or increase over time? How will any such data be used in future faculty gender pay equity studies?
6. Do differences among female and male faculty members in time to promotion, a variable not included in the Mercer Phase 2 models, impact salary differences at later stages of their careers? Do such differences exist? Do such differences, if any, stay constant or increase over time? How will any such data be used in future faculty gender pay equity studies?
7. The statistically significant differences in average salary between female and male faculty members revealed by the Mercer Phase 2 models for SLUCare and Non-SLUCare suggest that there is a gender wage gap in all units at SLU. If the differences in salaries cannot be explained by reference to differences in performance or productivity between female and male faculty members (see Additional Research Question #3 above) or other objective measures of job performance, this suggests that such gender wage gap may be the product of some form of bias, either implicit bias, cultural bias, or structural bias. What is the source of such bias and how can it be addressed at SLU?

RECOMMENDATIONS:

1. **Remedial action to address the faculty gender pay gap:** It is the position of the SLU GETF that any gender pay gap of any magnitude is unacceptable and must be addressed. It is our understanding from the SLU Office of the Provost that the results of the Mercer Phase 2 analysis were reported out to the deans of the Colleges/Schools in March of 2016 and that

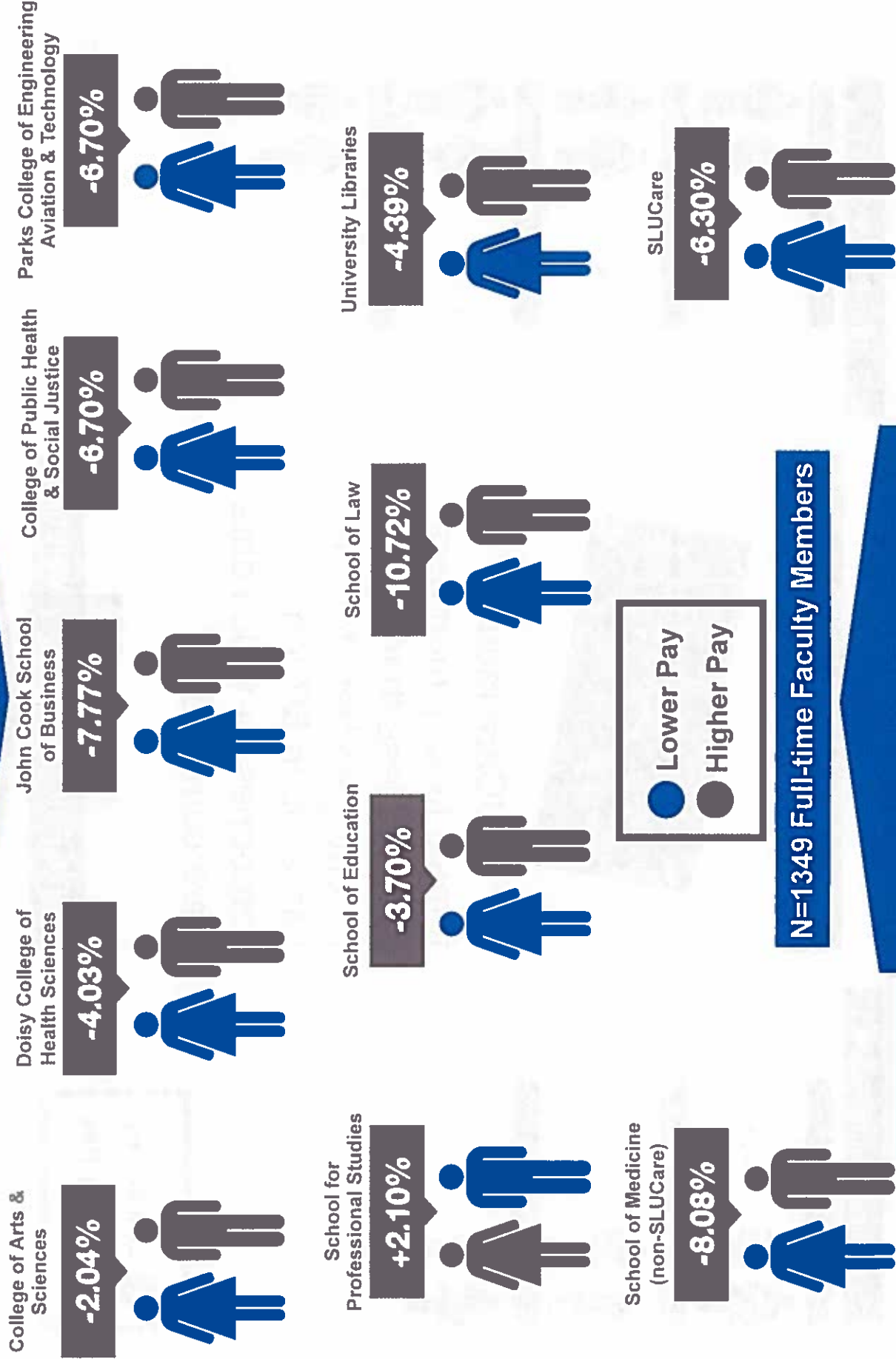
remedial action was undertaken by some deans to address the most egregious cases of gender pay inequities for full-time female faculty members. However, SLU is a private institution that does not report faculty salary information and the extent of such remedial action is unknown to the SLU GETF. Even with such remedial action being taken, however, such action does not fully and adequately address the underlying differences identified in this report, namely the persistent gender pay gap that exists across all ranks, all tenure status categories and all Colleges/ Schools, with two exceptions noted above. The observed practice of paying female faculty members less than male faculty members for the same job is obvious from the results of the Mercer Phase 2 study and is very troubling for a university that includes in its mission statement a “commitment to justice.” We strongly urge the SLU Office of the Provost and the deans of the Colleges /Schools to take note of this striking finding and to develop a plan to close the gender pay gap for all full-time faculty members through future salary adjustments for full-time female faculty members.

2. **Regular monitoring of progress on faculty gender pay equity.** We recommend regular monitoring of gender pay equity, and reporting of any changes, at least on a biennial basis. The faculty gender pay equity analysis described in this report should be repeated every two years to monitor progress toward the goal of equity. The SLU Faculty Senate should be responsible for interpreting the results of such future faculty gender pay equity studies through a permanent Committee on the Status of Women. Many other private and public universities monitor faculty gender pay equity on a regular basis to determine if issues of pay inequity exist or develop and if progress has been made within the university. Given what appears to be a pervasive and seemingly systematic difference in the average salaries between female and male faculty members at SLU, this is an area of serious concern that needs to be addressed by the SLU administration. These data should be reported using the 2016 Mercer Phase 2 study as the baseline for comparison. We recommend that the SLU Office of the Provost invest in permanent capacity to do such analysis rather than relying on consultants.
3. **Collection of additional information on drivers of faculty salaries:** As discussed under the heading of “Additional Research Questions” above, we recommend that the SLU Office of the Provost collect and analyze information concerning faculty performance and productivity, faculty workload allocation, starting salaries and time to promotion and utilize such information for future faculty gender pay equity studies.
4. **Training on Bias in Setting Faculty Salaries:** We recommend that the SLU Office of the Provost require training for deans and chairs of the various Colleges/Schools at SLU on the topic of bias, which may impact the setting of faculty salaries or evaluating faculty for merit increases, among other things.
5. **Support of SLU Mid-Career Faculty Development Committee:** The SLU GETF is aware that SLU has established a committee to support and develop mid-career faculty, many of whom are women. We endorse SLU’s efforts to identify the factors that may inhibit or

prevent such mid-career faculty from progressing to full professor status, which may negatively impact their salaries.

6. **Designated Point of Contact for Faculty Pay Equity Issues:** SLU does not currently have a mechanism for addressing concerns of individual faculty members regarding equitable treatment related to pay or other employment-related matters, such as an ombuds. We support the designation of a university official to serve as a point of contact for such faculty concerns on a confidential, independent, impartial and informal basis.

SLU PAY GAP

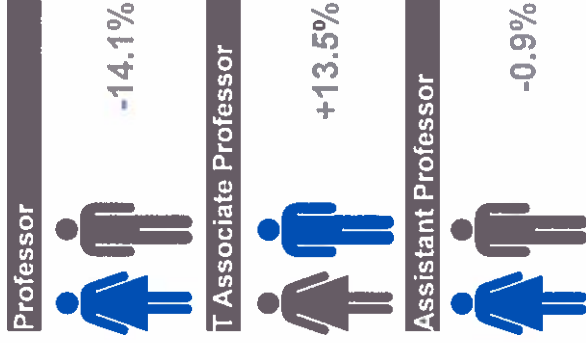


COLLEGE BREAKDOWN

Figure 1

SLU PAY GAP

Tenured/Tenure-Track

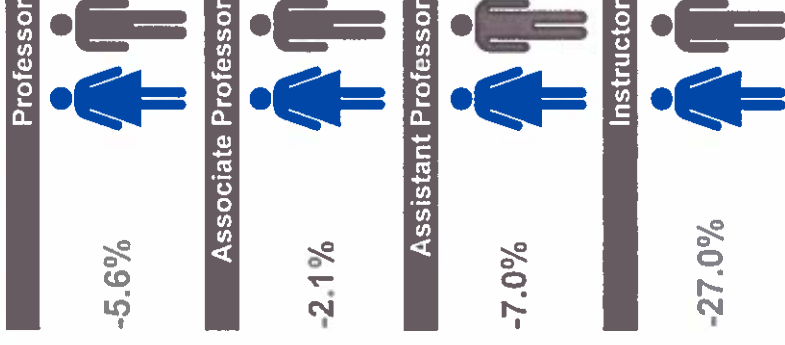


SLUCare Faculty



For SLUCare faculty, female faculty members are paid less than male faculty members for the same job in **6/7** job categories for which data were compared

Non-Tenure Track



N=376 Full-time Faculty Members

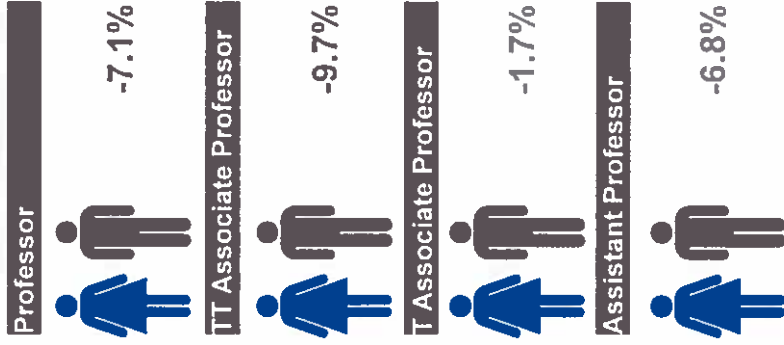
Figure 2

RANK/STATUS BREAKDOWN



SLU PAY GAP

Tenured/Tenure-Track



Non-SLUCare Faculty



For non-SLUCare faculty, female faculty members are paid less than male faculty members for the same job in **10/10** job categories for which data were compared

N=973 Full-time Faculty Members

Non-Tenure Track

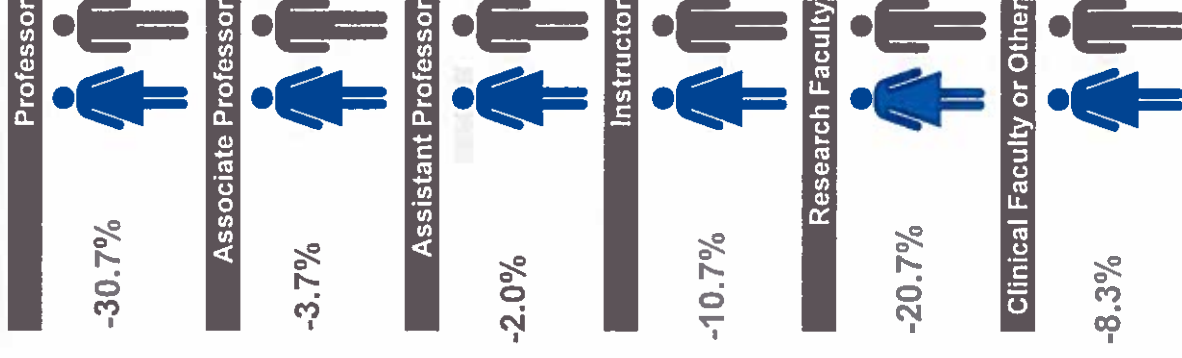


Figure 3

RANK/STATUS BREAKDOWN

Appendix I



Saint Louis University (SLU) – Faculty Pay Equity Study Methodology

Methodology Summary

The objective of the faculty pay equity study was to enable Saint Louis University to identify and manage base pay differences and build a sustainable process for ongoing pay equity management among their faculty. While several different methods have been used to assess pay equity in organizations, we employed a “multiple regression” approach that aligns with the methodology used by government agencies involved in the compliance of pay equity laws and guidelines, including the Equal Employment Opportunity Commission (EEOC) and the Office of Federal Contract Compliance Programs (OFCCP).

This first step of the process involved identifying the study population. In general, the objective was to evaluate pay equity among faculty. Next, decisions were made on how to segment the faculty population. Segmentations are made in order to increase the accuracy of the pay prediction models, especially where segments of the organization may differ in pay philosophy, structure or process. SLU ultimately decided that there should be two segments studied: one to include all SLUCare faculty (those with direct medical care responsibilities within the School of Medicine) and one comprised of all other faculty (referred to as Non-SLUCare).

Given the difficulties in controlling for other forms of pay beyond base pay, it was decided to perform the equity analyses on only base pay for the Non-SLUCare segment. However, based upon input from SLUCare leadership, it was decided to evaluate total pay for the SLUCare segment. Part of the criteria used in deciding to include total pay for SLUCare was that a reliable measure of performance/productivity was available, i.e., wRVU's – *relative value units*, which was not available for the Non-SLUCare segment. Other removals were made to the database by SLU to address unusual situations where an individual could be considered an outlier to the normal pay administration policies. For instance, Veteran's Administration physicians were excluded because their pay for services is received from sources external to SLU and could not be affected by SLU practices. Faculty on phased retirement were also excluded.

SLU extracted the database from Banner¹, and delivered it to Mercer for the equity analyses. The Banner data reflected the segments identified by SLU, separating SLUCare from Non-SLUCare primarily based upon employee class in consultation with the Health Science Center Finance Office. Faculty contract length was added to the database for each individual as was wRVU percentage to FPSC Benchmark for SLUCare physicians. Full-time equivalent (FTE) was normalized to 1.0, and salary was adjusted accordingly where appropriate, i.e., faculty on phase retirement were excluded from the database as were administrative stipends for Non-SLUCare faculty.

¹ The data for these analyses reflects a snapshot in time and was extracted from Banner on February 2, 2016.

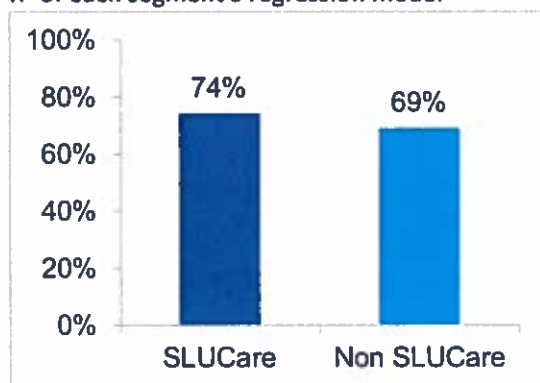
Analyses

As the first step in the analysis, Mercer used the database delivered by SLU to construct statistical (regression) models to predict current pay for each of the two segments. These models identified the important drivers of pay, or factors that influence pay for SLU, and their relative weights in predicting pay. Based on Mercer's recommendations as well as input from SLU, including the Gender Equity Task Force, the following pay drivers were included in the model construction for each segment. Some drivers were only included in the SLUCare segment as noted below.

- Age (Experience proxy)
- Length of SLU Service
- Time in Rank
- Time in Tenure
- Tenure Status
- Job Title
- Percent of Actual wRVU to FPSC Benchmark (SLUCare Only)
- Education (SLUCare Only)
- Discipline
- External Market Pay Median

To construct the models, Mercer employed an ordinary least squares (OLS) regression method, and used an iterative approach of entering one variable (driver) at a time until all variables were entered. The dependent variable was the natural logarithm (Log) of salary, and we also used the Log of "External Market Pay Median" (P50_Log), which was one of the independent variables. For all other variables, the actual values were used. The table below displays the overall R^2 of the final models constructed for the SLUCare and Non SLUCare segments.

R^2 of each segment's regression model



"R-squared" is the percentage of variation in annual pay rate that is accounted for by the explanatory variables included in the model; values of 70% or higher are considered desirable for pay equity analyses.

Once the models were finalized the equity analyses were conducted, which involved calculating each individual's predicted pay from the appropriate model and comparing that to their actual pay. The

difference between the predicted pay and actual pay of each individual is called a residual. In performing the equity analyses, the average residuals of different comparison groups, e.g., males vs. females, were compared to assess whether one group is paid on average less than the other group after controlling for all legitimate drivers of pay. Pay differences that are found between two groups are considered differences that cannot be explained by legitimate drivers of pay, and therefore suggest inequities in pay.

The results of the equity analyses were generated for each segment across Gender and Race/Ethnicity categories. In addition, for Gender, comparisons of mean residuals were calculated for each discipline, rank and tenure category. Furthermore, the residuals for all individuals in the database were calculated and outliers (both positive and negative) were identified. Outliers were those individuals whose actual pay was significantly higher or lower than their predicted pay. These results have been reported separately and discussed with the SLU project team.

Secondary Analyses

At the request of SLU's Gender Equity Task Force, Mercer also conducted an equity analysis using a different methodology. In this scenario, we used the regression model constructed for each segment using the primary method and entered the Gender and Race/Ethnicity variables into the model as the last variables to be entered. For this method, the statistical significance of the change in R^2 is evaluated after entering the gender or race/ethnicity variables. Significant values indicate that the variable(s) entered add(s) significantly to the prediction of pay after all legitimate pay drivers are controlled. Thus, significant values for Gender or Race/Ethnicity variables would suggest pay inequities for the groups in question. The direction of the beta weights indicates which specific Gender or Race/Ethnicity group is disadvantaged. A significant negative sign would indicate that the "minority" group is disadvantaged, i.e., female for the gender comparison, and categories other than white for the race/ethnicity comparisons. A significant positive sign would indicate that the majority group, i.e., male or white, is disadvantaged.

To interpret a beta weight with respect to average percent difference in pay between groups, one should technically take the exponent of the weight, since the weights were generated on the Log of salary. However, given the fact that the weights/percentages are typically small for these types of analyses the exponent of the observed values would be very similar to the observed values.

The results from this secondary analysis have been reported separately and discussed with the SLU project team. No further analyses using this method were conducted since more specific equity results (e.g., by school, discipline, rank and tenure category) were generated using the primary "residual" regression method, which is the preferred method for drilling down into smaller groups.

