2018–2019 Report from KU's Faculty Compensation Committee

Executive Summary

The faculty compensation committee reviewed reports on salary data from KU's Office of Institutional and Research Planning (OIRP). When controlling for inflation, salaries for tenure-track faculty at KU are stagnant or decreasing while inflation-adjusted salaries at peer institutions have been slowly increasing.

KU has a relatively large proportion of associate professors and a low proportion of full professors. The committee finds that this unusual distribution of ranks contributes some to the pay gap between KU and peers. However most of the gap is explained by average salary within each rank. Similarly, the committee examined whether the low cost of living in Lawrence is a good explanation for the lower salaries at KU. Once again, this factor can explain some but not all of the disparity.

We also find that the method used by this committee in previous years to calculate an "All ranks" com-comparison between KU and peer institutions can underestimate the average salary paid by peer institutions. Thus the pay gap between KU and peers is larger than it appeared to be based on previous reports.

Thus, the overall message is simply that KU faculty need raises for KU to become more competitive with peer institutions.

Procedural recommendations

Both the chair of the faculty compensation committee and the OIRP analyst who runs the compensation report were new to these tasks this year. As a result, some of the analyses for specific charges of the committee are still pending and unlikely to be completed before our April deadline for our report. This includes important analyses of equity in salary (which has not been run since 2015). That analysis will be run by OIRP in the spring or summer of 2019. A high priority for next year's committee should be an examination of that report as soon as it is available.

At the end of this report, we recommend some procedural changes for this committee. Specifically, we outline a schedule for requesting new reports from OIRP that we hope will avoid similar delays in the future. We recommend that the faculty compensation committee start the fall semester by looking at a targeted, in-depth report from OIRP from the previous version of the committee. The newest data for a basic salary report from OIRP can be obtained early in each spring semester. However, more targeted analyses should probably not be requested to be run early in the spring semester, as that time frame overlaps with many other OIRP deadlines. Instead the faculty compensation committee should request that additional reports be run in the end of spring or summer to be examined by the committee in the next fall.

Standing charge: "Collect information on levels and distribution of faculty salaries. Report and make policy recommendations to FacEx and the Faculty Senate, including a 1-page executive summary of the Final Report."

Figure 1 depicts the average salary of tenured and tenure-track faculty at KU from 2000-2018. When corrected for inflation, KU's average faculty salary has not increased since 2007, and has been decreasing since 2015.

KU has an unusual distribution of faculty into different ranks (discussed below). The average salary is affected by both the mean salary at each rank and the number of faculty at each rank. To control for KU's unusual distribution of faculty ranks, we can examine the salary for each rank separately. Figure 2 depicts the inflation-adjusted (to January, 2019 dollars) average salaries of faculty at each rank at KU (shown in red) and fifteen peer institutions that KU's Office of Institutional and Research Planning (OIRP) has recently used for salary comparisons.[1]

Figure 1: KU average salary for tenure-track faculty for years 2000-20018. Blue line indicates the 2018 mean salary.

In the last year for which we have data (2018), all of the tenure-track faculty ranks at KU show pay differences of over $15,000. Substantial gaps in salary exist at each of these ranks at the beginning of the committee's data (2011). At the full professor level, this pay gap has increased from around $15,500 in 2011 to $19,600 in 2018. The pay gap between KU assistant professors has been relatively steady at around $15,000 (in current dollars). As the committee noted last year, the pay gap at the associate level has worsened substantially in the last eight years. It has grown from $8,800 to $16,800.

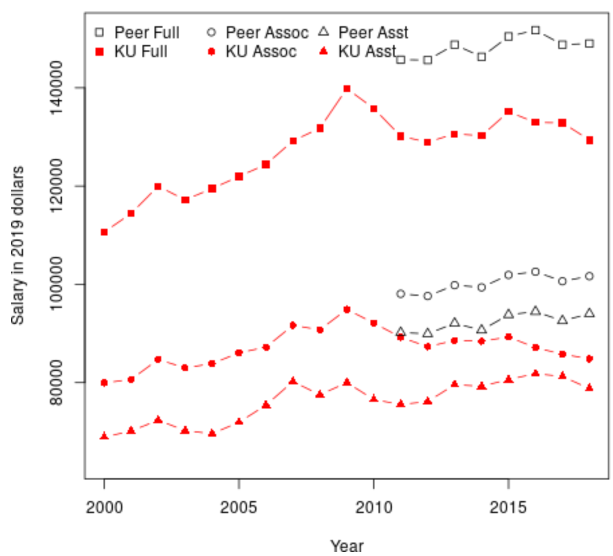

Figure 2: Inflation-adjusted salaries by rank at KU (red) and 15 Central US AAU institutions (open).

OIRP provided data on salaries for lecturers for 2017 and 2018 only. The data for lecturers is not plotted because we have such a short time series. Fortunately the pay gap is smaller for lecturers. A KU lecturer with a full FTE earns an average of $59,389, which is 92.4% of the average at peer institutions ($64,243). The committee does not have any data about the relative workloads for lecturers (number of classes or number of students taught). So, it is not clear whether these salaries should be directly compared.

The committee did examine the data at units below

[1]The 15 institutions are: Colorado, Illinois, Indiana, Iowa, Iowa State, Michigan, Michigan State, Minnesota, Missouri, Nebraska, Ohio State, Purdue, Texas, Texas A&M, and Wisconsin.

the level of the University, but did not note any units with dramatic changes from patterns that were shown in previous years.

KU salary as a percentage of peers' salaries: When comparing the average salary to salary at peer institutions, it makes a difference how one assigns weights to each of the different faculty pay rates. Figure 3 shows two possible weightings. If we compare the mean salary of a tenure track faculty member at KU to the average salary of a tenure-track faculty member at peer institutions (red lines), we see a decreasing trend with KU's current average faculty pay being around 83.7% of peer's average faculty pay. This figure reflects lower pay rates, and the fact that KU has a much higher proportion of faculty that are at the associate level.

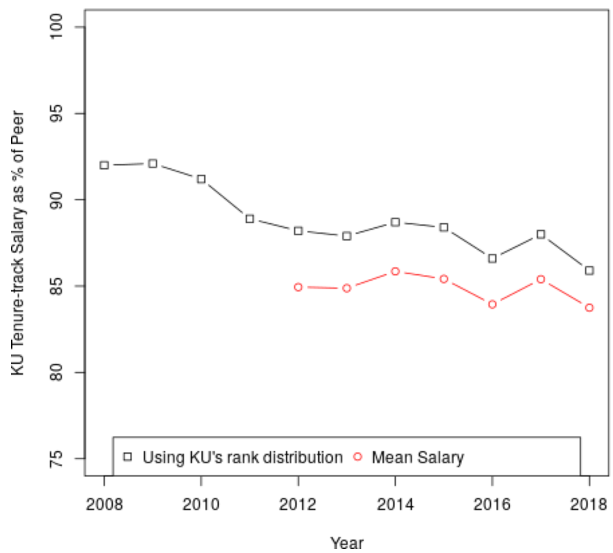

Figure 3: KU' tenure-track faculty salary as a percentage of peer institutions'.

In previous years, the faculty compensation committee has used OIRP's "All Ranks" comparison. That measurement weighs the average salaries at each rank for peer institutions by the fraction of KU's faculty at that rank. Tracking this statistic (open squares in figure 3) attempts to control for differences in fraction of faculty in each rank. However, this method does not attempt to correct for number of years of service (which is indirectly related to rank). Using this method, KU faculty earn on average 85.9% of the pay of their similarly ranked peers. Note that the last two years of this data series include data for lecturers.

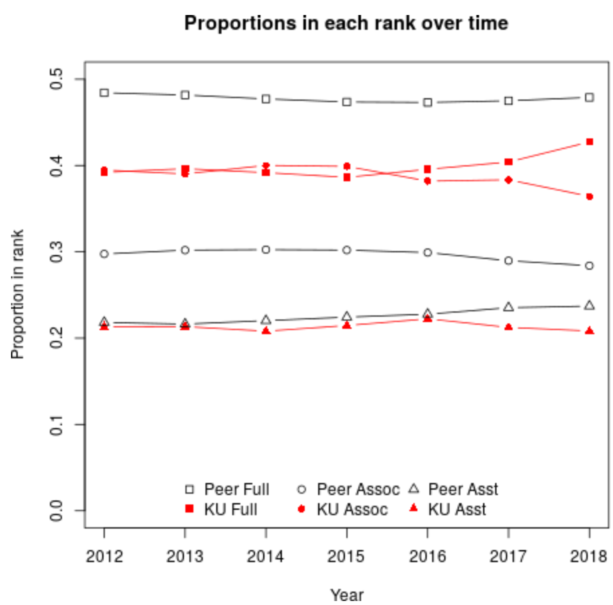

Figure 4: The proportion of faculty in each rank over time for KU (red) and peer institutions (open).

Distribution of faculty ranks: Figure 4 reveals that, in the past three years, KU has started to converge on the rank structure of peer institutions at the associate and full professor level. KU still has a substantially lower fraction of full professors and a higher proportion of associate professors, but the trends are in the right direction. The fraction of assistant professors at KU has decreased slightly in recent years relative to peers. Presumably the almost complete lack of faculty hiring in the 2018-2019 year will exacerbate this trend and lead to a large divergence in a few years.

The faculty compensation committee in upcoming years will need to exercise caution about excessive optimism about the fraction of associate professors dropping at KU. If we continue to hire fewer assistant professors than our peer institutions, a drop in the proportion of associate professors will eventually result. This drop will occur even if KU does not make adequate progress in getting its associate professors to be promoted at a higher pace. The "Voluntary Separation Incentive Program" will probably also have an effect on the rank distribution at KU. Presumably, it will lead to a higher-than-normal retirement rate at the full professor level in the next year.

Effect of rank distribution and salary levels: As a means of addressing the third specific aim (mentioned below), the committee considered the interactions of KU's unusual distribution of ranks and its lower salary. Figure 5 shows the data on average salary of tenure-track faculty at KU (red) and peer institutions (black).

The blue data series represent overlaying KU's associate-professor heavy distribution onto our peer's average salaries. Because KU's higher fraction of associate professors appears to be matched by a drop in the proportion of full professors, this change causes the average salary to drop. The difference in the blue series and red series, shows the magnitude of the difference that would arise if KU brought its salary levels in line with the means of peer institutions.

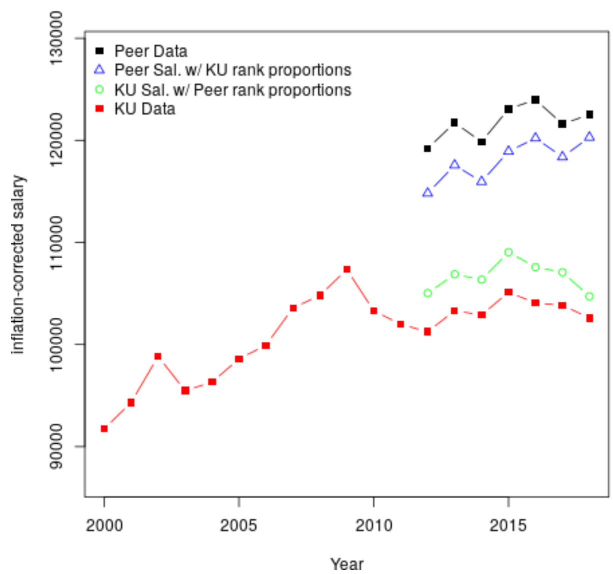

Figure 5: Inflation corrected salaries over time for peer institutions (black), KU (red), using KU salaries with peer's rank distribution (green) and using peer's salaries with KU's rank distribution (blue).

Alternatively, one could consider what would happen if our peer institutions maintained their own distribution of faculty ranks, but adopted KU's average salary. This curve is shown in green. This data series is much more similar to the actual KU average salary (red) than the blue curve is. This demonstrates that the majority of the difference in overall mean salary is a result of the salary levels, and not the rank distribution. Clearly, KU faculty salaries are affected both by the higher fraction of associate professors than peers and the lower pay rate, but the lower salary rates have a much more dramatic effect.

Considering the cost of living: It is possible that some fraction of the lower salaries when compared to peer institutions arises from a lower cost of living in Lawrence relative to the locations that are home to our peer institutions. This effect is not expected to be very large, because the peer institutions were chosen to be similar to KU. Committee chair Holder conducted a very informal analysis of cost of living in the cities and towns that are home to our peer institutions using cost of living estimates from a website (www.bestplaces.net). The committee is not sure how reliable this data is, so we urge caution when relying on the following analysis.

Based on our analysis, Lawrence is roughly 5% cheaper than the home of the average faculty member at our 15 peer institutions used above. The University of Texas, Colorado U., and U. Michigan are all located in areas that have substantially higher costs of living than Lawrence. U. Wisconsin and U. Minneapolis are moderately higher.

OIRP provided us with mean salary data for ten institutions, nine of which were among the AAUDE peers mentioned above.[2] Plotting the salaries at these institutions vs our rough estimate of the relative cost of living (graph not shown) revealed that Colorado was an outlier. Boulder's cost of living was estimated to be 187% of Lawrence's, but faculty salaries at U. Colorado are only 15% higher than at KU. If that outlier is removed then a linear model appears to be a reasonable fit to the remaining data. Based on that linear regression (which explains about 43% of the variation in the salary data), KU faculty salaries are about 8% lower than one would expect based on the cost of living in Lawrence. While we wish to re-emphasize that we are uncertain of the reliability of our cost of living estimate, we can state that the salary gap between KU and similar institutions may shrink a bit when accounting for cost of living, but it still appears to be quite substantial.

Recommendation: Subsequent conversations with OIRP indicate that they have access to a Runzheimer index of cost of living. We suggest that next year's committee coordinate with OIRP to run an analysis using that (presumably more reliable) data set.

FY2019 Specific charges #1 "Work with Staff Senate Committee to investigate what, if any, negotiations should take place with regard to implementing some form of dependent tuition assistance program at KU."

The proposal to provide tuition assistance to the dependents of KU faculty and staff was endorsed by the 2017-2018 version of the faculty compensation committee, and the faculty senate. The issue is being considered as a potential use of funds in future year. Provost Lejuez discussed it as a potential component of what he considers to be the "foundational priorities" in his proposed budget model. See for example slide 18 of the slides from the December 5th budget conversation (http://provost.ku.edu/sites/provost.ku.edu/files/docs/FINAL.budgetconvo_12-5-18.pdf ; discussed 36 minutes 30 seconds to minute 39 of the December 5 conversation which is at http://provost.ku.edu/budget-presentations). Given the budget crisis at KU, it seems somewhat unlikely that this program will be implemented immediately. However, the committee recommends that the faculty senate continue to support the establishment of such a program.

FY2019 Specific charges #2 "Work with the Office of Institutional Research and Planning to guide analysis of salaries for equity in gender, ethnicity, and race at a frequency to be determined."

The committee has requested that the OIRP repeat this analysis (as was done in 2015). OIRP has a number of deadlines for reporting information to the AAU Data Exchange program in April, so it is unlikely that the analysis of salary equity will be completed in the spring semester. We anticipate having the data over the summer so that next year's faculty compensation committee can analyze the results in detail. Specifically, we hope that the 2018-2019 committee can see the report from OIRP on this important issue, and that the 2019-2020 version of the committee will be able to react to those data in detail.

We concur with last year's committee that this report should be scheduled to run every two-three years, and that we are currently over-due to look at this data. In our meeting with OIRP representatives, they concur that running this analysis every two or three years is reasonable.

[2] Baylor, Colorado, Florida, Indiana, Iowa, Iowa State, Kansas State, Michigan State, Missouri, Nebraska, North Carolina, Oklahoma, Oklahoma State, Oregon, SUNYBuffalo, Texas, Texas A&M, Texas Tech, and Virginia

FY2019 Specific charges #3 “Investigate the factors contributing [to] salary disparity between faculty at various ranks and provide recommendation to FacEx on strategies that it should advocate for in order to address the disparity in salaries between KU faculty by rank, especially at the associate level.”

Most of the analyses that we were able to perform relating to this task were mentioned above in the discussion of the standing charge. In particular, relative to the previous iterations of the faculty compensation committee, this year’s committee took a closer look at whether the salary gap between KU and peers can be explained by KU’s unusual rank distribution or costs of living. Neither of these factors make KU’s salaries comparable to peers.

In short, the solution is clearly an increase in pay rate, and not simply dismissing the salary gap as an artifact of our location or number of faculty in each rank.

The committee chair Holder discussed with OIRP the possibility of looking into more detailed analyses that can account for each faculty member’s:

1. years since hire,
2. years in current rank,
3. years since PhD, and
4. mean salary of retiring faculty.

While OIRP does have access to this data for KU and some peer institutions, we must obtain permission to use this finer grained data. Tighter rules govern sharing of the fine grained data in the AAU Data Exchange. Thus, we recommend that next year’s committee work with OIRP in the fall to obtain permission to use data that is richer than simple average salaries for each rank.

While these analyses are worth pursuing, the committee refers again to Figure 2 of this document. The figure makes clear that:

1. large salary gaps occur at all 3 professor ranks;
2. inflation-adjusted mean salary at each rank has been slowly increasing among our peer institutions; and
3. inflation-adjusted mean salary at KU has been stagnant for assistant and full professors and declining for associate professors.

These are broadly congruent patterns that seem to indicate widespread lower pay at KU rather than some specific cause related to a small subset of our faculty. Examination of the unit-level data (see Appendix) reveals that very few units are on-par with peer institutions in terms of salary; this underscores that the problem is systemic and not isolated to a few parts of the university.

Recommendations: Based on our discussions with OIRP, we make the following recommendations for next year’s committee’s activities:

1. Examine the OIRP report on equity in salaries. This year’s committee has requested that the analysis be performed (see specific charge #2), but it is unlikely to be available for detailed analysis by this year’s committee. We expected it to be run in late spring or summer of 2019.
2. Work with OIRP to design a set of metrics to follow related to detailed teasing apart of changes in salary levels at KU. Specifically, we hope that OIRP can provide
   (a) statistics about factors that could influence salary (bearing in mind that some of these may require permission to use; see discussion of specific charge #3 above);
   (b) comparative cost of living measure at peer institutions based on the Runzheimer index;

(c) the mean salary of retiring faculty at KU to get a sense of how the voluntary separation incentive policy affects data in the next few years; and

(d) information about total compensation (salary plus monetary value of benefits) to provide a more holistic summary of faculty compensation.

3. Obtain the basic data for the standing charge from OIRP in early 2020.
4. Write the committee's report with comments on the equity analysis and basic salary data.
5. Work with OIRP to assure that an analysis of factors contributing to salary changes is run in the spring or summer of 2020.

Rationale: Early in the calendar year, OIRP has to collect data and perform the basic analyses for KU's data sharing under the AAU Data Exchange program. Most of those deadlines for these basic reports are in April. Asking OIRP to produce an "extra" report (e.g. the equity report or a more detailed report of factors causing pay disparities) seems most appropriate if the request is for Spring or Summer. This additional report can be reviewed in detail by the faculty compensation committee in the fall. Currently, the tasks of the faculty compensation committee are relatively light in the fall semester. So having a report that needs to be analyzed in the fall makes sense