

MEETING SUMMARY



Institutional Knowledge Management

SUBJECT: Faculty Salary Study Statistics Subgroup

DATE: 6/27/2017

ATTENDEES: **IKM:** Alyssa Mullins, Zachary Merritt

CMS#: 42955

Faculty Senate: Tian Tian, Bridget Rubenking (phone), Grace White

Faculty Excellence: Debbie Hahs-Vaughn

Human Resources: Sarah Lovel

NOTES

Main Topics

- Discussion of study methodology
- Tenure/Tenure-Track models and Rank models
- Research productivity data
- Brainstorming visualization/reporting ideas
- Actionable recommendations

Discussed study methodology: *Linear regression – Dependent variable is the log of the adjusted 9 month salary for each faculty member*

- Discussed how far to break down grouping by discipline (*department level limited due to sample sizes*)
- Discussed tests used to test college/department level difference in average (and median) salaries to determine current method of categorization
 - For tenure/tenure-track model: If yes, separate by dept., otherwise, group by college
 - Rank models broken down by college

Group decided to focus on rank specific models rather than entire tenure/tenure track model, so this question is not currently an issue

- Discussed model assumptions and related verification work
 - Heteroskedasticity present in models
 - Adjusted model to use more robust regression method
 - Results practically identical, so went back to normal regression for convenience

Group members did not determine this to be an issue. Will revisit issue as needed.

Discussed differences between Tenure/Tenure-Track models and Rank Models

- T/TT models use all T/TT faculty, with control variable added for rank
- Rank models consider each rank a separate population
- **Decided to use rank models**

Discussed upcoming measure of Research Productivity using Academic Analytics data

- Described the aggregated “Scholarly Research Index (SRI)” score for each faculty member
 - Contributions weighted differently by discipline
- Use of this measure is supported by Univ. of Missouri’s salary equity study
- Currently have data as of Nov. 2015 – should get 2016 data around Sept.

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- **Need to determine how to move forward in the meantime without access to this data, as the group decided it would be particularly helpful to have**

Discussed best ways to report results for intended audience

- Binary significance, and emphasize effect size
- Make sure to display counts (n's)

Recommendations

- What actions could reasonably be taken as a result of this study?
- Discussion of project scope
 - Keep it narrow to finish by Faculty Senate meeting in fall
- Use prediction intervals from model to flag outliers among faculty members for further investigation
- How good should model performance be in order to feel comfortable with recommending action based on their results?
 - Roughly, $Adj. R^2 \geq 0.6$

ACTION ITEMS	RESPONSIBLE	DUE
Audit administrative faculty for inclusion in model	Statistics subgroup	7/5/17
Test function to identify outliers in model results	Zack	Next meeting
Benchmark model performance against similar studies	Zack	Next meeting
Provide raw .csv data to statistics subgroup	Alyssa	6/28/17