

Lessons & Landmines in Conducting Faculty Salary Studies

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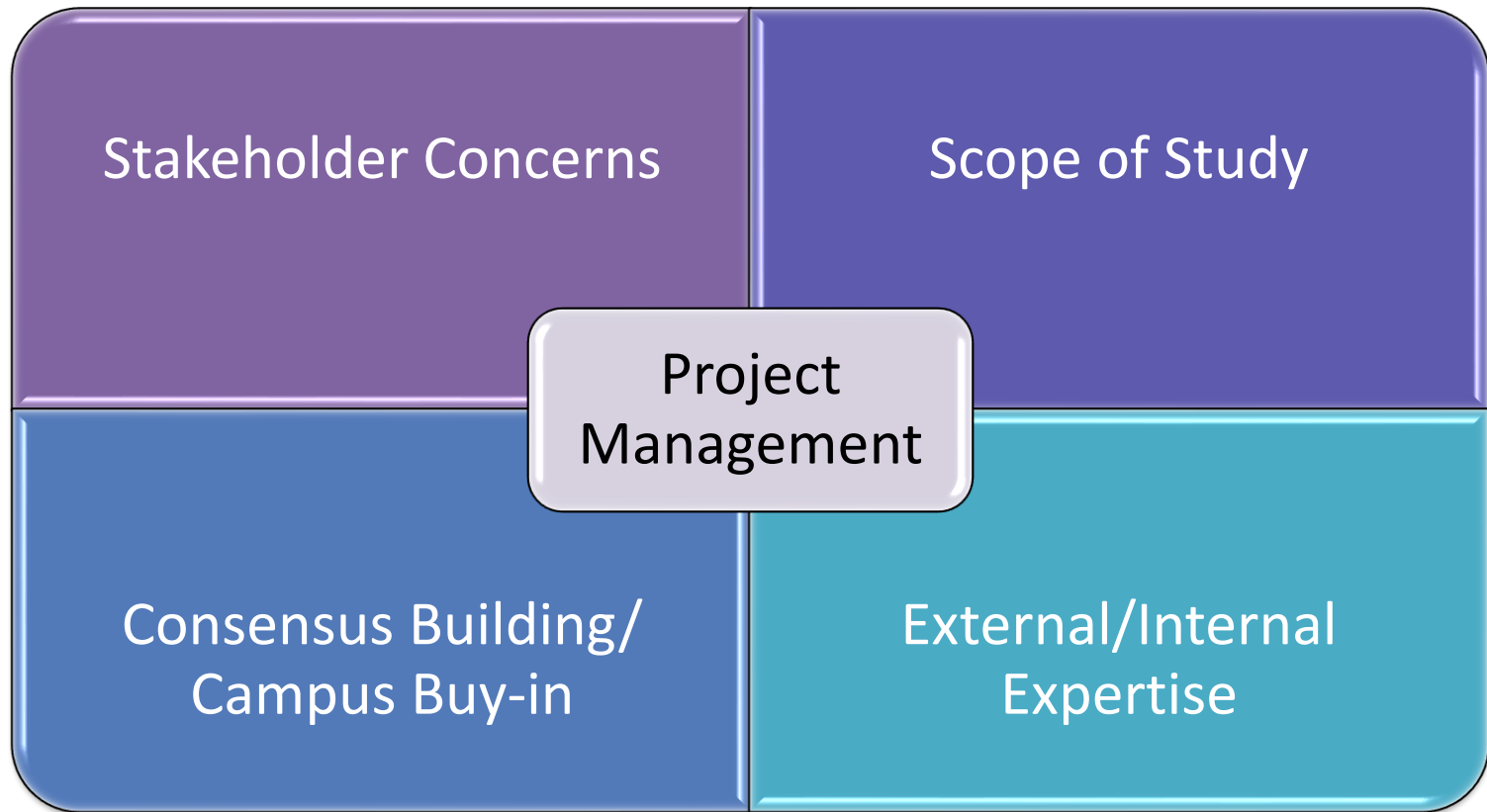
**North Carolina Association for Institutional Research
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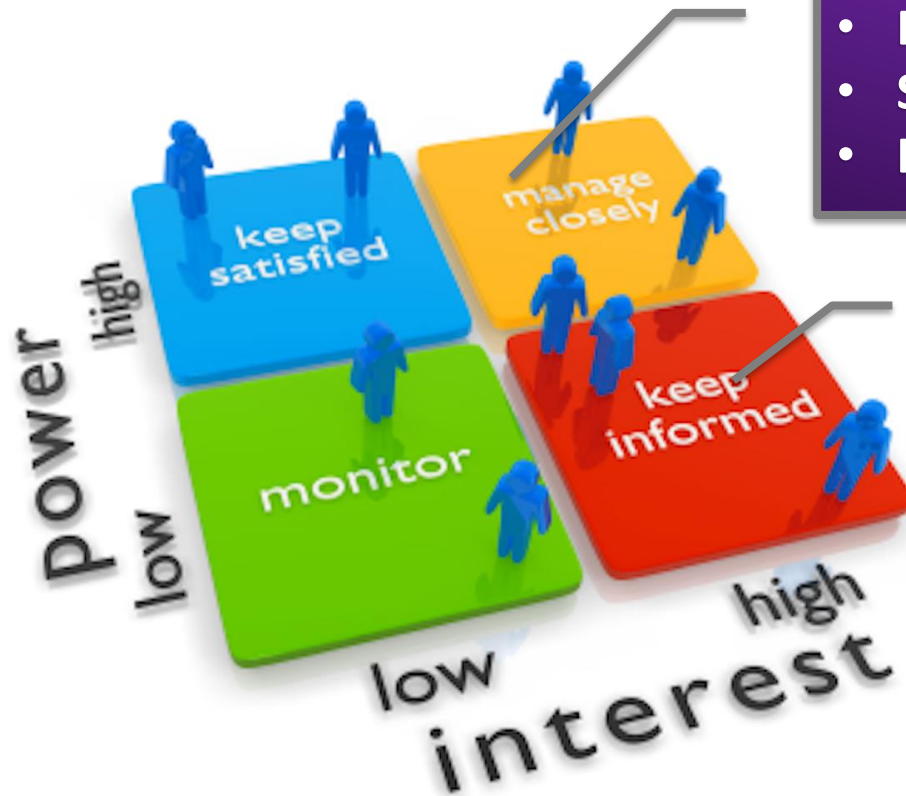
Agenda

- Before you begin: Important considerations in doing faculty salary studies
- Two salary studies conducted at ECU
 - 2014 Faculty Salary Equity Study
 - 2018 Faculty Salary Compression Study
- Lessons learned & landmines to avoid
- Questions/discussion

Before you begin: Important considerations in doing faculty salary studies



Stakeholder Management



- Faculty Senate
- Senior administration
- Individuals with strong opinions

- ECU faculty
- Department chairs
- Equity and legal offices

Strategies:

- Advisory Group(s)
- Focusing on scope
- Accepting input throughout
- No competing studies

2014 Faculty Salary Equity Study

Overview



Purpose of the Study: examine whether there were systematic, institutional-wide gender and race/ethnicity disparities in faculty compensation



Major Players:

- Office of Equity and Diversity and Office of University Counsel
- Institutional Research
- Faculty Senate Leadership
- Chancellor's Committee on the Status of Women
- Three Divisions (Chancellor's, Academic Affairs, & Health Sciences)
- External Consulting Firm



IR's Role:

- Data Collection and Validation
- Project Management and Stakeholder Management
- Assistance to the External Consultant
- Validation of Results
- Communication and Interpretation of Results

Data

- **Population:** full-time instructional faculty
- **Data Source:**
 - Official personnel data file (PDF, cleaned & supplemented)
 - Gender and race/ethnicity unknown: visual identification
 - Salary benchmarks for Health Sciences faculty
 - Faculty activity reporting system
- **Compensation:**
 - 9- or 12-month salary (with conversion as needed)
 - Stipends: included for Brody School of Medicine and School of Dental Medicine; classified by type (chair, vice chair, clinical chief, pediatric chief, program director, miscellaneous, etc.)
- **Faculty Productivity:**
 - Courses taught and student credit hours (SCHs)
 - Sponsored research and scholarship activities
 - Service activities, and awards and honors
 - Relative Value Units (RVUs) Data from Brody School of Medicine

Methodology – Salary Equity

- Multiple Predictors*
 - Academic Affairs – Department
 - Health Sciences – Salary Benchmarks
 - Tenure Eligibility
 - Academic Rank
 - Dept. Head/Supervisor
 - Years Since Hire
 - Years between Terminal Degree in the Field and Hire
 - Instructor in College of Business
 - Stipend Types (Brody & Dental)
 - Relative Value Unit (RVU) from Brody School of Medicine
 - Multiple regression models
 - Academic Affairs (3 models): all faculty, tenure-eligible faculty, and fixed-term faculty
 - Health Sciences (5 models): Brody medical faculty, Brody basic sciences faculty, College of Allied Health Sciences, College of Nursing, and School of Dental Medicine
 - Libraries (1 model)
- *Not all predictors were included in all models.*

Additional Analyses: Academic Affairs

Faculty Productivity by Gender

- Independent Variables
 - Gender
 - Discipline
 - Tenure Eligibility
 - Academic Rank
 - Dept. Head/Supervisor
 - Years Since Hire
 - Years between Terminal Degree in the Field and Hire
 - Business Instructor in College of Business
- Dependent Variables – Sedona Entries in:
 - Articles
 - Books
 - Presentations
 - External Professional Experience
 - Service*
 - Honors & Awards*

** Female faculty reported significantly more honor/awards and service activities as compared to male faculty.*

Salary Equity: Independent Variables (in addition to gender & race/ethnicity)

	Academic Affairs	Medical/ Dental	Other HS	Libraries
Discipline Factor	Academic department	Benchmark	Benchmark	
Tenure Eligibility	Included		Included	Included
Academic Rank	Included			Included
Years Since Hire	Included	Included	Included	Included
Hire Year – Terminal Degree Year	Included	Included	Included	Included
Dept. Head/Supervisor	Included			Included
Business Instructor	Included			
Stipend Types (Chair, Chief, Director, etc.)		Included	Brody basic science	
Clinical RVUs		Medical faculty		

Outcomes

- No systematic disparities based on gender or race/ethnicity were identified
- No major differences in AA faculty productivity based on gender
- A predicted salary was calculated for each individual
- More than 150 individuals were identified for further salary review

Regression Model	R-sqr
Academic Affairs	.83
Brody Medical Faculty	.83
Brody Basic Sciences Faculty	.88
Dental Medicine	.69
College of Allied Health Sciences	.73
College of Nursing	.83
Libraries	.70

Limitations of the Study

- No elimination of high-end outliers for regression analyses
- Stipend data
 - Not possible to distinguish permanent stipend vs. temporary stipend
 - Classification of stipends was not replicable
- Faculty productivity data:
 - Limitations with availability, reliability, consistency, and completeness of individual faculty productivity data
- Benchmark data
 - Medical Faculty: AAMC benchmarks include all types of compensation, but study included only base salary and stipends
 - Dental Faculty: ADEA data collection methodology did not specify length of employment
 - Allied Health Sciences Faculty: unable to find appropriate benchmarks for some faculty

Other Challenges of the Study

- Data clean-up
 - Race/ethnicity: Unknown
 - Terminal degree: Related to field or not
 - PDF: Interpreting/supplementing salary data
- Unable to identify useable productivity measures
- Disagreement and confusion over methodology
- Scope creep and prolonged timeline

Communication of Results

- Presentations made by consultant
- Meetings with deans and associates to explain results
- Executive summaries and full reports available on website
- Faculty forums & reports to Faculty Senate



Faculty Salary Equity Study

[AA Salary Analysis Regression Report Executive Summary - December 2, 2015](#)

[Faculty Salary Equity Study Report - posted December 2, 2015](#)

[FSES Executive Summary Health Sciences - August 10, 2016](#)

[Faculty Salary Equity Study Report \(Health Sciences\) - posted November 17, 2016](#)

The goal of the Faculty Salary Equity Study ("Study") is to complete a comprehensive and robust analysis of faculty salaries, university-wide. Faculty and staff members have been selected from different areas of campus to serve as members of the Faculty Salary Equity Task Force ("Task Force").

The Task Force will collaborate with the consultant Dean Sparlin to determine whether gender or race/ethnicity have inappropriately affected faculty salaries. The consultant is expected to complete the Study before the fall semester of 2015. Members of the Task Force will be assisting in the process of the Study by providing advice and feedback.

Use of Results

- Salary review: deans asked to
 - review salary of identified individuals
 - propose adjustment considering performance
- Individualized letter to each AA faculty
- New concerns over:
 - Salary compression
 - Promotion to full professor
 - Opportunities for additional duties that carry stipends

WNCT 9 on your side Greenville 52°

ECU faculty happy with study results; want salary compression addressed

By:
Zora Stephenson

Updated: Dec 08, 2015 05:29 PM EST




GREENVILLE, NC (WNCT)- East Carolina University held two forums Tuesday to talk about their recently released salary equity study.

The study was performed to make sure there were no systematic differences in pay of faculty members based on gender, race, or ethnicity. The study is only a portion of what was discussed at the forums.

Faculty said their biggest concern is salary compression.


2018
Faculty Salary
Compression Study

Overview

 **Purpose of the Study:** Identify cases of salary compression and inversion



 **Major Players:**

- Institutional Research
- Faculty Senate Leadership
- Two Divisions (Academic Affairs and Health Sciences)

 **IR's Role:**

- Data Collection, Validation and Analyses
- Project and Stakeholder Management
- Communication and Interpretation of Results

Developing Methodology

- Literature review 
 - Most common method: linear model (to predict individual salary or estimate size of compression)
 - Most common predictors: **Academic rank, tenure status, administrator indicator, years in rank/at institution/in academia**, CIP code, college, school/department, highest degree, **market factor**
- Consult with experienced professionals 
 - Benchmark analysis

Data

- **Population:**
 - Academic Affairs: tenured and tenure-track faculty
 - Health Sciences & Libraries: full-time fixed term, tenured, and tenure-track faculty
- **Data Source:**
 - Official personnel data file (cleaned & supplemented)
 - Salary benchmarks for all faculty
- **Compensation:**
 - 9- or 12-month base salary (converted when needed)
 - Brody School of Medicine and School of Dental Medicine: 12-month salary, stipends, incentive pay, and other income (extra shift pay, emergency room pay, night shift differentials, etc.)

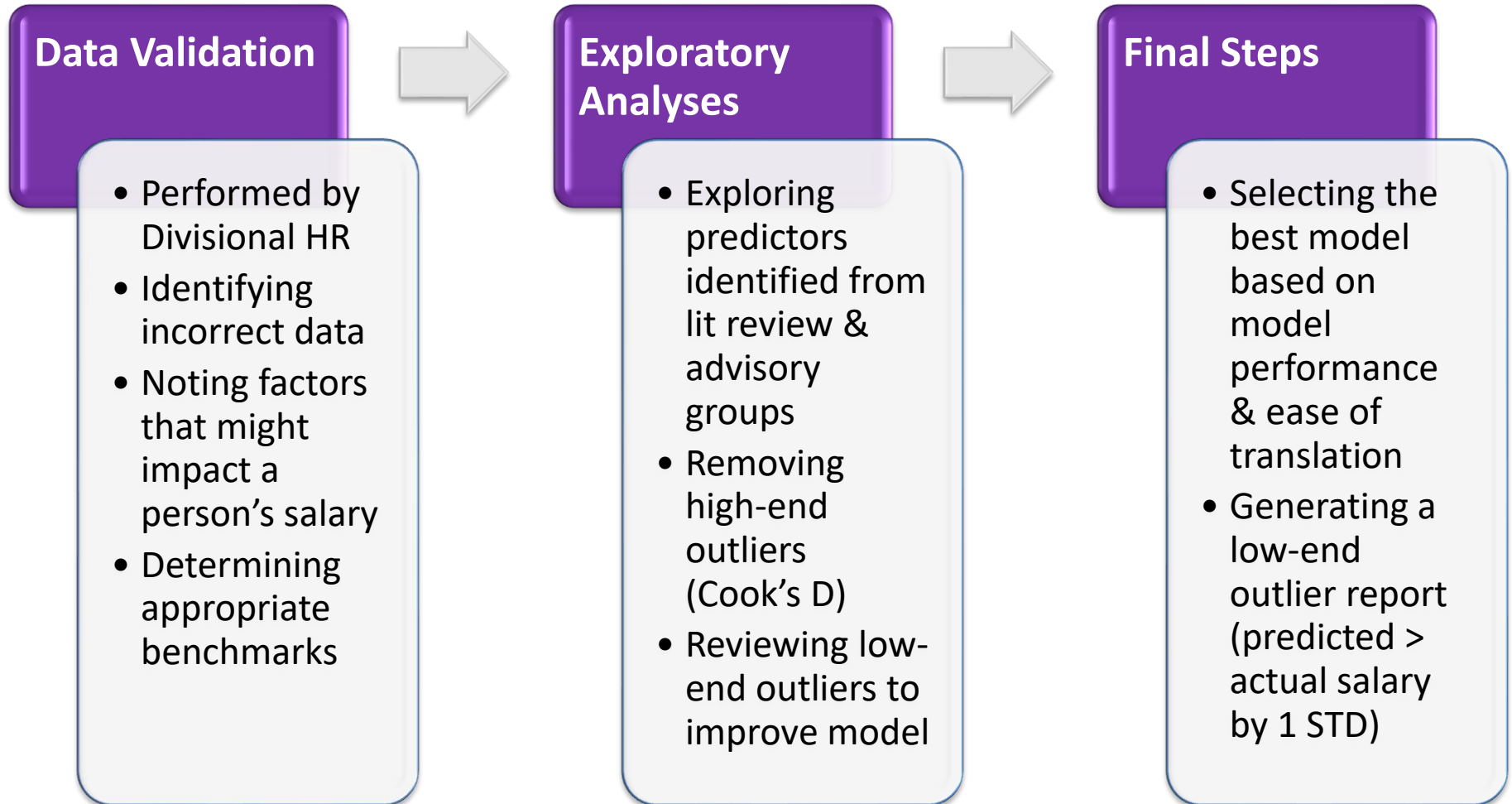
Benchmark Analyses

- Benchmark Sources
 - CUPA-HR
 - Association of American Medical Colleges (AAMC)
 - American Association of Colleges of Nursing (AACN)
 - Other professional organizations
- Issues with Benchmark Analysis
 - Lack of consistency in benchmarks from different sources (e.g., different conversion methods & categories of faculty)
 - Missing benchmarks for certain disciplines & missing CUPA-HR data (due to confidentiality restraints)
 - Reflects market including any national compression/inversion
 - Doesn't control for any predictive variables

Preliminary Outcomes: Academic Affairs Benchmark Analysis

	Full Professors	Associate Professors	Assistant Professors
<i>TOTAL</i>	200	325	157
Lowest 25 salaries (compared to benchmark medians)	21	2	2
Under 75% of benchmark medians	38	8	4
Under 80% of benchmark medians	75	33	6
Under benchmark medians	159	290	122

Analytical Process



Regression Analyses: Summary

Seven Regression Models: Academic Affairs, Libraries, College of Nursing, College of Allied Health Sciences, Brody Medical Faculty, Brody Basic Sciences & PhD Faculty, & School of Dental Medicine

	Academic Affairs	Libraries	Nursing
Discipline Factor	Academic department	Benchmark	Benchmark
Academic Rank	Included		
Time in Rank	Included	Included	Included
Hire Year – Terminal Degree Year			Tested
Supervisor Designation		Included	
R-sqr (preliminary)	0.88	0.86	0.77-0.85

Lessons Learned and Landmines to Avoid

Lessons Learned 1: Advisory Groups

- Include the “right” people: both critics & champions.
- Include faculty leadership (e.g., Chair of the Faculty).
- Include professional staff with expertise in salary practices.
- Work with a wide range of statistical capabilities/understanding among members.
- Act as communication pipeline between advisory groups and senior leadership.

Lessons Learned 2:

Faculty Productivity and Salaries

- Consistent metrics of productivity are not possible even with institutional-wide adoption of Sedona/Interfolio.
- Some units attempt to use enrollment change funding model to “quantify and compare” teaching productivity of individual faculty.
- Clinical faculty might be penalized for being “productive” (e.g., taking on extra shifts voluntarily).

Lessons Learned 3:

Benchmarks and Local Salary Practices

- Use benchmarks to address specialties within a field for clinical faculty.
- Understand components of benchmarks: sometimes, components of benchmark may not match base salaries.
- Understand local salary practices:
 - Some units used their own funding to compensate the lack of institutional-wide promotion raises.
 - Some units used permanent stipends to compensate low base salaries.
 - Some units allow individuals to renegotiate base salaries after stepping down from an administrative position.

Lessons Learned 4:

Managing Individual Concerns

- Concerns during the study:
 - Separating the study from personal experience or perception
 - No discussion of individual or individual cases
 - No premature release of information
- Concerns after the study:
 - Requests for information related to the study
 - Misuse of predicted salary as “recommended salary”
 - Faculty salary grievances

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Institutional Planning, Assessment and Research

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