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Managing the Administration of Grant Portfolio Complexity (pre and post) with Analytics, Accountability Metrics and Training

PCI: Portfolio Complexity Index
KIBCE: Key Indicators of the Business Control Environment

*NCURA - FRA
New Orleans*

March 2013



Duke University

Session Description

- **Title: Managing the Administration of Grant Portfolio Complexity (pre and post) with Analytics, Training, and Accountability metrics.**

Program Level: Advanced

Pre-Requisites: Participants are aware of complexities of grant administration and have a conversational understanding of associated issues (training, workload management, HR progression).

Description:

Most universities struggle with the relationship between employee performance management, the complexity of their job responsibilities and the effectiveness of their institutional training programs. Having departmental staff that may not be adequately trained, who may be overwhelmed by the complexity of the portfolio they are managing for their PI, and/or managing an assigned workload that is more work than they can reasonably do, stresses the research administration system and can be a catalyst for compliance issues, morale problems, and dissatisfied faculty. Managing this is often a highly subjective and qualitative process that is difficult to manage both at the macro and micro perspective. This session will provide one example of a potential tool-set that applies objective and quantitative data to manage the "complexity" of a research administrator's grant portfolio. This "Portfolio Complexity Index" (PCI) then can be used to ensure that staff members are adequately trained, workload is distributed appropriately, and position leveling/compensation are reasonable. KIBCE provides information to manage PCI and the department's internal control structure.

Learning Objectives:

1. Understand the specific master data element of pre-award proposals and post-award projects that can drive "portfolio complexity" at one sample university.
2. Understand how quantitative measurements can provide significant insight into managing the complexities of grant manager's portfolio.
3. Understand specific examples of how objective data can effectively support the management of workload assignment, training, HR job progression, etc.

Agenda

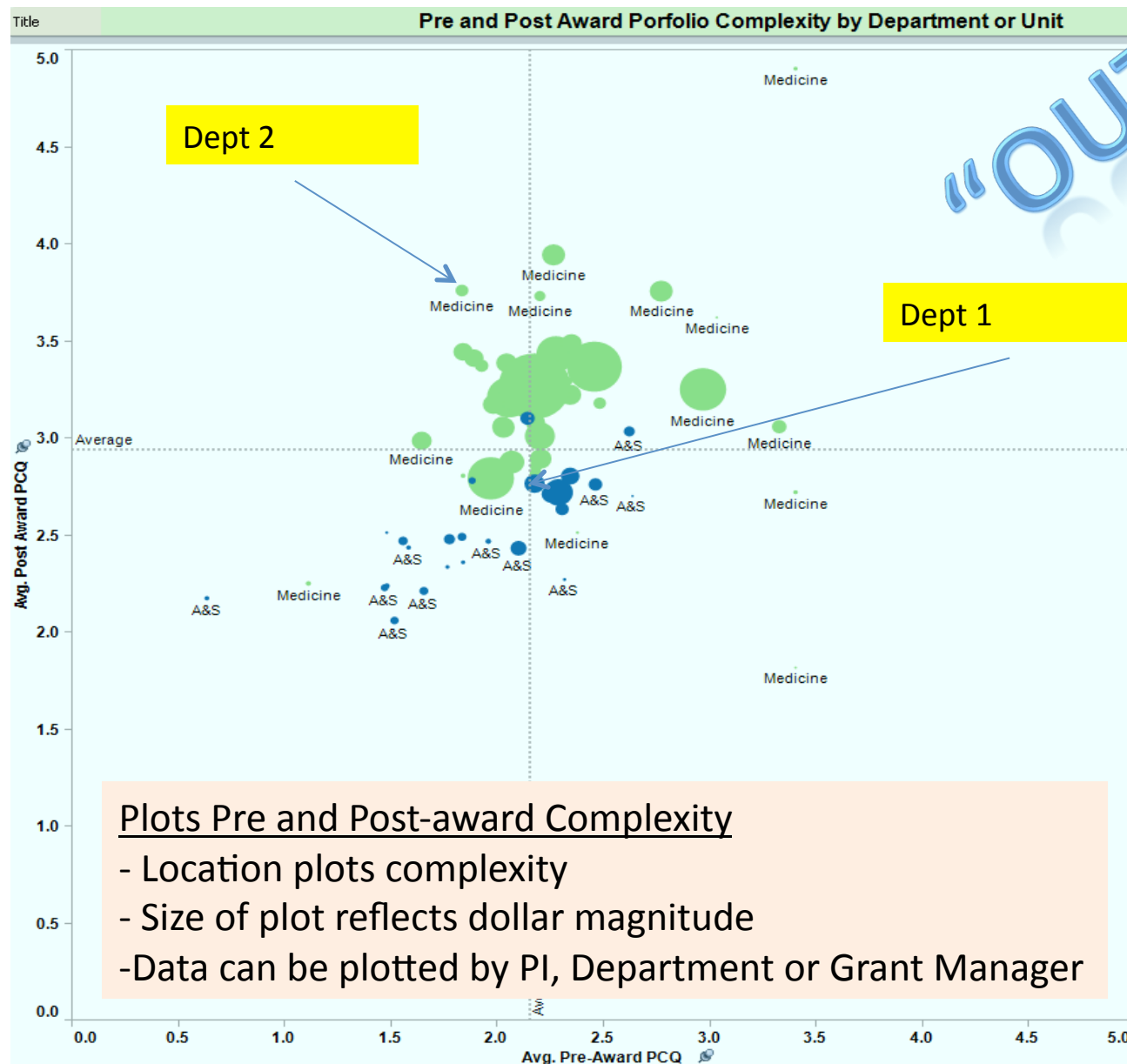
- PCI and KIBCE Overview – Examples of The “Outcome”
- Context – Research Administration
 - Current Environment
 - Desired Future State
 - The Path: RACI/Integration Initiative → FAM, IT, HR
- Challenge: Managing with Accountability and Transparency
- Analytical Tools
 - PCI: Portfolio Complexity Index
 - KIBCE: Key Indicators of the Business Control Environment
- Next Steps

PCI Overview Example

“OUTPUT”

	Post-award M\$'s Managed	Post-award Codes Managed	PI's Supported	Sponsors Supported	Portfolio Complexity
GM 1	\$4.5	3	1	1	3.6
GM 2	\$7.1	8	2	3	4.7
GM 3	\$3.4	16	5	6	3.1

Pre and Post-award Complexity (PCI)



Objective: Understanding the Adequacy of Your Departmental Staffing with Respect to GM Portfolio and Internal Control Environment

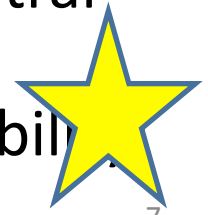
- Personnel
 - Job Responsibility Complexity
 - Pre-award
 - Post-award
 - Workload (Magnitude and Variability)
 - Training Status
- Procurement Methods
- Performance Metrics



Current State (Challenges & Opportunities)

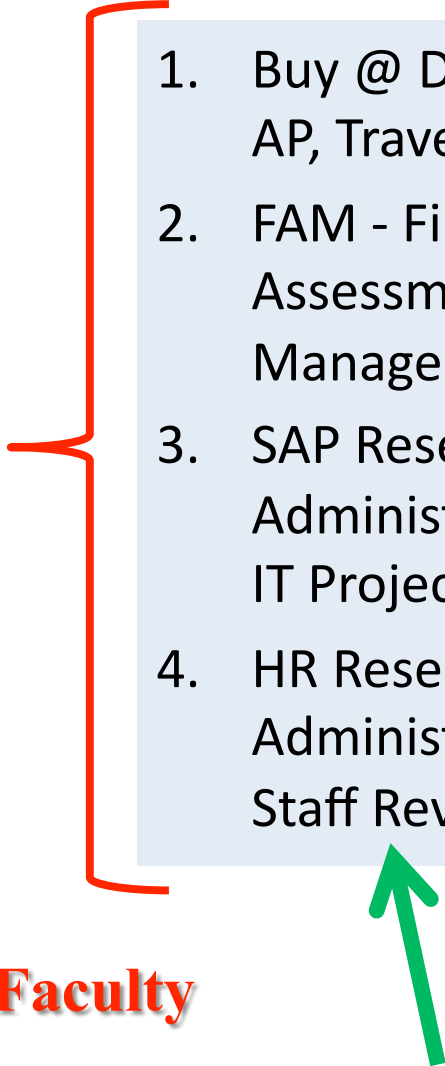
(Similar to Most Complex Research Institutions)

- Decentralized Post-award and Pre-award
- Departmental pre-award responsibilities often take priority over post-award
- Inconsistent Evolution of Technology and Business Process
- Opportunities
 - Clarify Roles and Responsibilities
 - Improved communication and trust between central offices and departments
 - Increase organizational transparency & accountability



The Path → Integration Initiative - I²

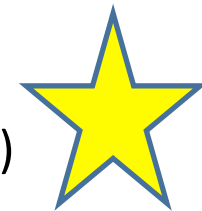
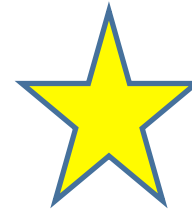


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1. Buy @ Duke, AP, Travel
 2. FAM - Financial Assessment & Management
 3. SAP Research Administration IT Projects
 4. HR Research Administration Staff Review

Objective: Improved Service to Faculty

The Future...

- Business processes that increasingly leverage technology and support clarity of responsibilities
- Best in Class Technology
 - Improve Transparency...Reduce paper...reduce rekeying...reduce inefficiency
- Increased Accountability
 - Departments & Central Offices
- Certified Staff Based on PCI and Specific Responsibilities (for all involved in research lifecycle)



Evolution → Revolution

Portfolio Complexity Index (PCI)

Key Elements

- Complexity of Portfolio
- Workload (\$ and #)
- Workload Variability (# of different sponsors and PIs)



Portfolio Complexity Index (PCI)

- **Objective:** Develop methodology to provide input to I² HR Team in support of Rollout and long-term management of job classifications
 - **Short-term:** support consistent classification of personnel within and across depts./schools for rollout of I² HR Initiative
 - **Long-term:** alignment of complexity with job levels/classifications, training, and performance management
 - Training and education: Confirm adequacy of training based on assigned complexity (RCC curriculum, training objectives alignment)
 - Workload management tool for departments
 - Accountability through monitoring results / Performance Evaluation and Planning
 - Support Risk Assessment process



PCI Process

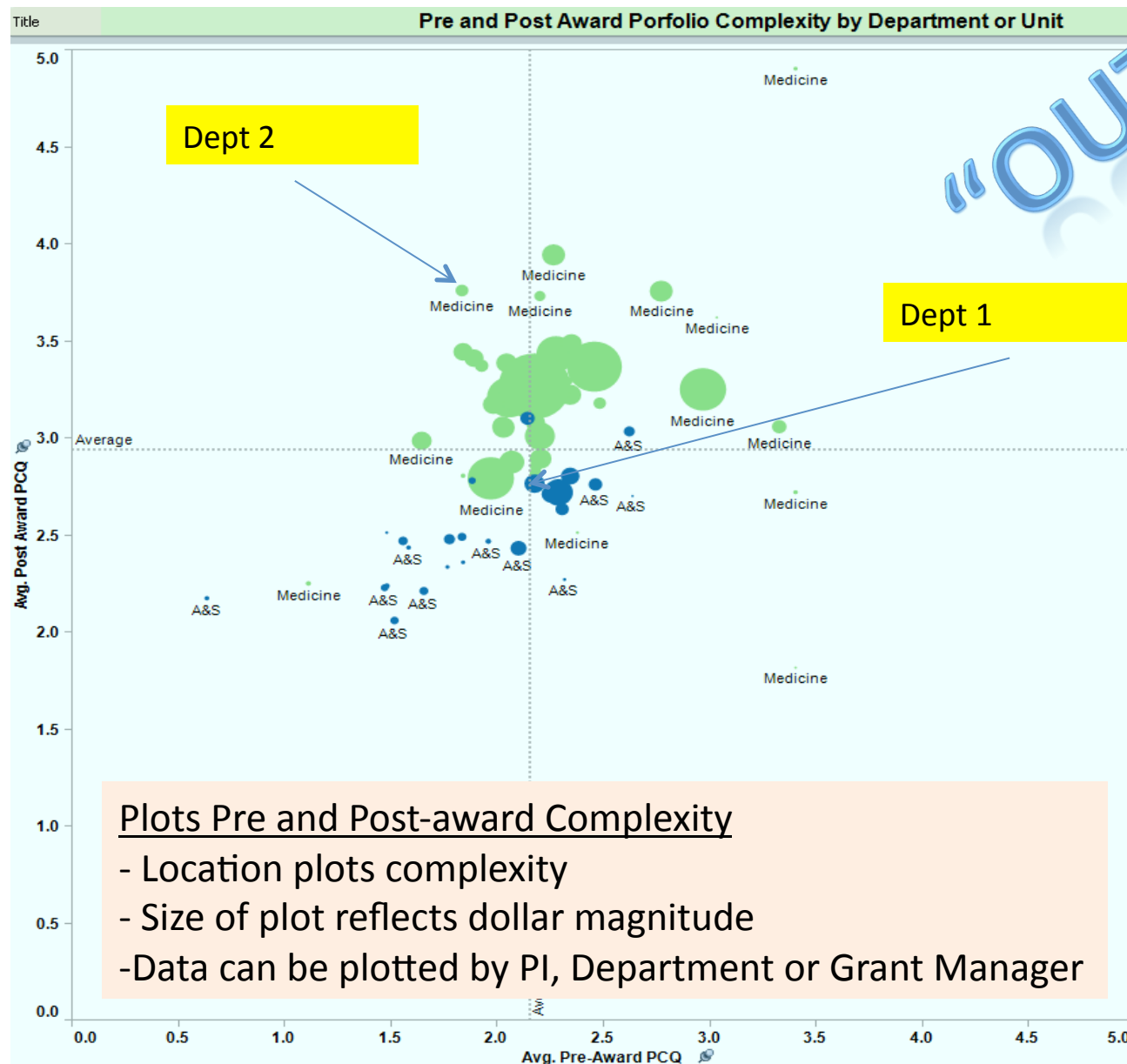
- **Methodology**

- Review master data elements that impact complexity (on a scale of 1 – 5)
 - For Post-award, reviewed 75+ attributes
 - NIH Mechanism (R01, P50), Direct Cost (\$), Sponsor, Sponsor Type (federal, educational institution, commercial), Number not-for-profit subcontracts, etc.
- Central “Experts” assign score based on review (~50 – 75 grants/proposals)
- Apply Regression Analysis
- Review data elements and score exceptions – Revise – Rerun
- Associate project/proposal scores with grant managers/department/PI to generate PCI
- Review with Departmental reps for quality control

- **Issues – Phase 1**

- Regardless of Complexity analysis, there will still be subjectivity applied to the process
 - Years experience, Level of Autonomy, Portfolio variation, Quality of work, Certification/ Education, Number of PI’s supported, Specific PI requirements, Transaction Volume, Impact of supporting both Post & Pre activities
 - Other Responsibilities
 - “The other 20%” (Need process to account for and evaluate non-research admin related work) and/or transaction responsibilities (creator, reviewer, approver)

Pre and Post-award Complexity (PCI)



PCI: Phase 2 Update

- PCI
 - Phase 1: Measures portfolio complexity based on classification of individual project codes; rolled up by GM, PI, Dept, etc.
 - Phase 2: Expanded to include
 - Workload metric
 - Number of Projects; Number of Transactions; Total Expenditures
 - Variability Index (PI and Sponsor)
 - Portfolio complexity is correlated to the number of PIs and the number of Sponsors



PCI Summary

1. Methodology is very complex; primary driver is the regression analysis which takes all of the subjective decision-making out of the process (*e.g. should a DoD contract be weighted higher than a Gates Foundation grant with 10 foreign subcontracts*).
 1. The regression analysis determined which fields should be used and these were vetted with the PCI team, central offices reps, and then dept'l reps.
2. And most importantly, this is only one element, albeit quantitative, that should be taken into account when being used by HR and department.
3. Process is iterative and will change.

KIBCE

Key Indicators of the Business Control Environment

KIBCE

=

PCI

+

How Departments Purchase Materials
(Degree of front-end controls)

Objective: Understanding the Adequacy of Your Departmental Staffing with Respect to GM Portfolio and Internal Control Environment

- Personnel
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Key Indicators of the Business Control Environment (Risk Assessment Overview)

Represents a portion of the quantitative input into the process;
not comprehensive and does not include subjective data.

- Objective
 - ICE Review
 - Quantitative data that can support the Department / School / Management Center's review of ICEs and associated Sampling plans
 - Provides management tool for department to
 - Manage distribution of grant workload
 - Ensure training requirements are being met in conjunction (with Training Tracker)
 - Track the absorption and utilization of new technologies (e.g. Buy@Duke, Travel)
 - Correlate relationship between workload, complexity, training, and metrics
- Indicator Areas
 - Personnel – Integration of Multiple Data Points
 - PCI (Pre and Post-award Comparative Data - Distribution of Complexity)
 - Training Status
 - Workload & Variability
 - RCC Metrics
 - Procurement Methods

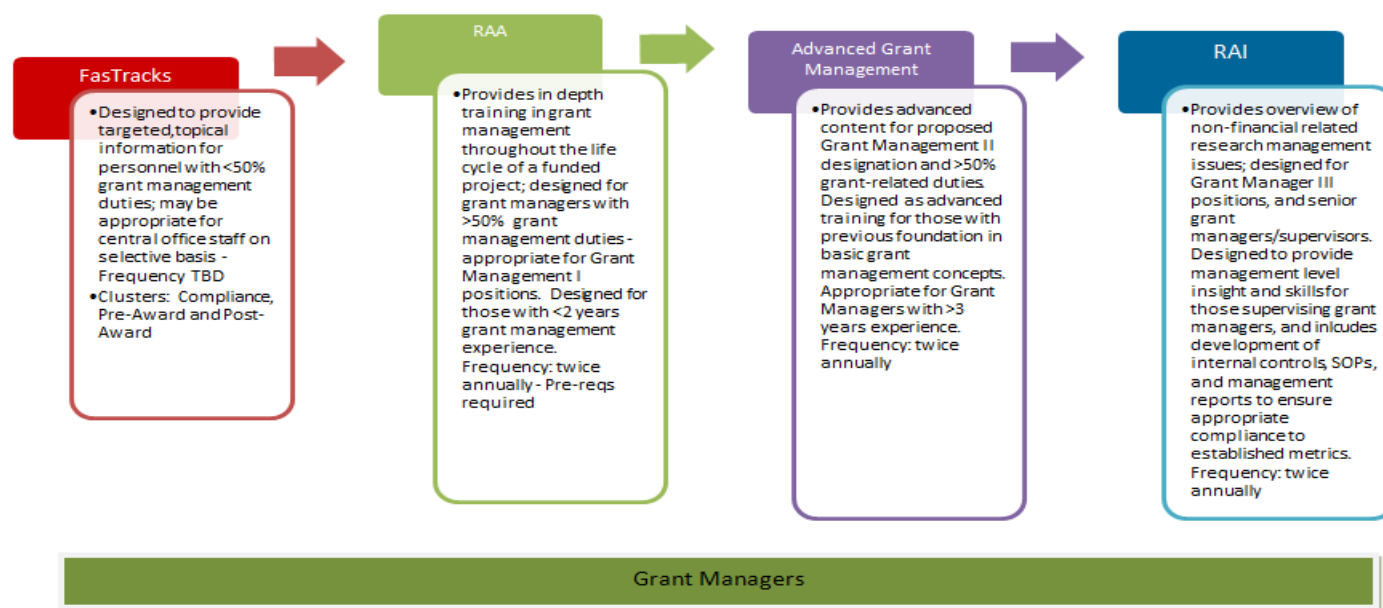
Summary Worksheet



TRAINING AND MONITORING

Research Costing Compliance Training

- Mandatory Compliance Education (PI, GM, BM)
- AAR Training (Allowability, Allocability, & Reasonableness) - to support technology rollouts and front-end controls
- Certification Programs (based on HR Classification)
 - Includes: comprehensive testing, mentors, lead trainers, class projects
- FasTracks – Content specific classes
- Symposium – 300+ staff members in day-long breakout sessions



Other:

• Annually updated mandatory on-line continuing education for PI

Integration Initiative (I²) - Objectives

- **Financial Assessment & Management (FAM)**
 - Increase ownership of funds by research administrators with regard to budget, overdraft management, effort management, etc.
 - Reduce burden associated with back-end reconciliation
 - Create an environment of better accountability and control by efficiently utilizing new system tools for effective front end control
 - Increase effectiveness of internal controls related to federal funds