EAB | University Research Forum

Minimizing the Administrative Burden on Faculty

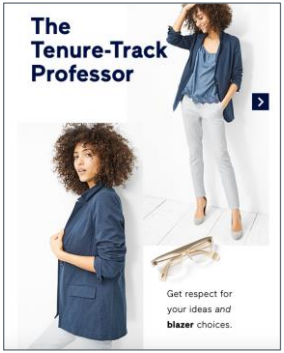
Strategies to Ensure Researchers Spend More Time in the Lab

Leading the Glamourous Life

As Seen in the Mainstream

From the Movies…

…To Print…



…To Stock Photos, Being a Researcher Just Looks Like Fun.

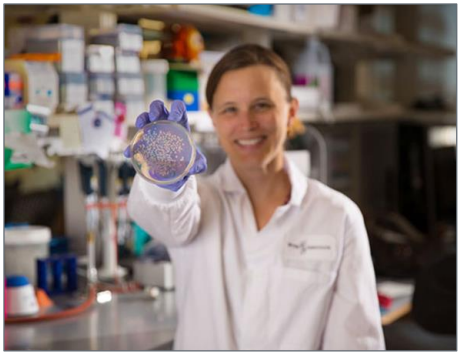
Source: "Professor Henry "Indiana" Jones, Jr."; Fashion Fail," *Inside Higher Ed;* "Shot of three happy chemists standing against a blackboard wall".

Leading the Glamourous Life

As Seen on a Campus Near You

Even in Reality, the Professor's Role Often Looks Fun and Exciting.

HARVARD gazette



MIT CAMPAIGN FOR A BETTER WORLD

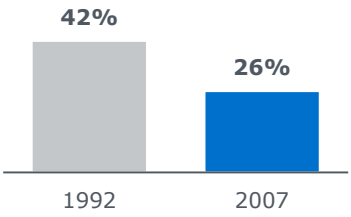
Source: MIT, "The Indiana Jones of Astrophysics,"; "Assumptions of how antibiotics work may be incorrect," *Harvard Gazette*.

Faculty Have Never Had It Easier

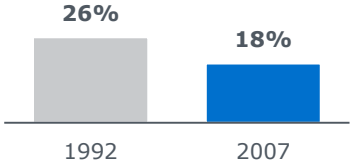
More Time for Research, Better Tools to Work With

Lighter Teaching and Service Requirements…

Teaching

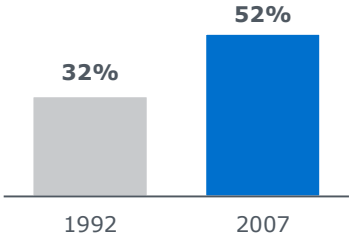


Service



…More Time for Research

Research



From Having to Sign Up to Use THE Computer…

…To Having Access to One That Thinks for Itself

IBM Watson

Source: Federal Demonstration Partnership (FDP) *Faculty Workload Survey, published in* 2007 and 2012; NEA Almanac of Higher Education, *Faculty Workload and Productivity in the 1990s, published in* 1996. "Computer room with DECSYSTEM-2020 mainframe computers, University of York 1980s"; IBM Watson Health.

But Research Faculty Also Face More Hurdles

Despite Advances, Environmental Pressures Pushing Down on Researchers

Key Drivers of Administrative Burden

Unpredictable Funding

Funding ebbs and flows limit sustainable money for researchers to chart their career paths

Increased External Competition

Lower funding rates can pit smaller schools and less-tenured faculty against more-experienced researchers

Added Regulations

Agency-specific and federal rules have expanded compliance burden on the research enterprise

Increased Internal Competition

Institutions must choose among disciplines to allocate dwindling university-level research funds

Source: EAB interviews and analysis.

Funding Booms Create a New Generation

Increase in Doctoral Students, Postdocs Puts Pressure on Admin Support

An Increase in Demand for Research Support…

4X

Increase in the number of postdocs from 1990 to 2015

2X

Increase in the number of S&E doctorates earned from 1990 to 2015

…and a Shrinking Supply of Resources…

26%

Administrative indirect cost recovery cap, instituted in 1991

…Leads to Investigators Doing More Work.

42%

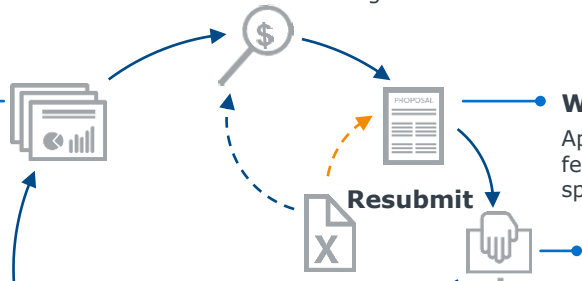
The average amount of dedicated research time investigators spend on administrative tasks

Source: AAAS Historical Trends, University S&E R&D (1990-2014), NCES Survey of Earned Doctorates (1990-2014), NCES Survey of Graduate Students and Postdoctorates in Science and Engineering (1990-2014), HERD (2010-2014), FDP Faculty Workload Survey (2012).

Faculty Caught Up in a Loop

Often Stuck in Early Phases of Find, Write, Submit, Repeat

The Endless Grant Cycle



Find Funding

"I **spent almost all of my time fundraising**, and the time spent on executing research was less than 5%"

Write Proposal

Approximately **16%** of PI's[1] federal research time is spent on proposal prep

Submit Proposal

Resubmit

Win Award

The NIH[2] success rate has dropped **from 31%** in 1998 **to 19%** in 2016

Manage Award

Conduct Research

"If I asked for an administrative assistant, it would **probably double my research time** … and my department would probably have a good laugh"

Compile Reports

Researchers feel burdened by progress reports that feel **too frequent** and of **little added value**

1) PI: Principal Investigator.
2) NIH: National Institutes of Health.

Source: FDP Faculty Workload Survey (2012); NIH Success Rates and Funding Rates; "Young, talented and fed-up: scientists tell their stories".

The Downstream Impact of a Weary Faculty

What Happens When Faculty Want Off the Treadmill

Failing to Attain Tenure

Even the most eager and accomplished doctoral students and postdocs tire of endlessly working for someone else while seeing fewer and fewer open tenure-track positions.

Impact:

- Broken in-house pipeline of potential tenured faculty
- Reputation of turning over high-potential researchers
- Unpredictable staffing for tenured researchers

Leaving Academia Entirely

The "quit lit" generation has made their voices heard: the administrative burden is too much, and non-academic careers are a greener pasture.

Impact:

- Loss of research expenditures and expertise
- Loss of teaching time and departmental knowledge
- Potential reputational damage in the age of viral rants

Shopping for Better Support

Worse than leaving academia is seeing a high-performing researcher poached by another university offering a higher level of research support.

Impact:

- Loss of research expenditures and expertise
- Loss of teaching time and departmental knowledge
- Discipline-level reputational damage of under support, deprioritization

Source: EAB interviews and analysis.

Reduction Efforts Too Intensive with Low Returns

On-Campus Efforts Poorly Aimed While Advocacy Efforts Take Too Long

Unit-Level Efforts

- May solve one problem, but often create new problems and/or exacerbate existing problems
- Often result in shifting burden, rather than eliminating burden

University-Level Efforts

- Often are a veiled cost-cutting initiative
- Results in short-term burden increases, followed by mid-term task rightsizing

Agency/Legislative Efforts

- Reactive initiatives take too long, recommend too many (infeasible) solutions
- Engagement in responsive initiatives does not guarantee proactive consultation
- Proactive advocacy channels too broad in scope, ill-equipped to influence rule-making process

What's missing from these approaches?

A process-wide, customer-centric viewpoint that puts the PI as the focus of burden reduction efforts.

Source: EAB interviews and analysis.

Instead, Take a Faculty-Centric Approach

Research Offices, PIs Misaligned on Administrative Process Timeline

The Ups and Downs of a PI's Experience Through the Grant Process

Source: University of Michigan Project Lifecycle; MIT FY2016 Faculty and Staff Quality of Life Survey; Federal Demonstration Partnership's (FDP) 2012 Faculty Workload Survey; FASEB Findings of the FASBET Survey on Administrative Burden (2013); EAB interviews and analysis.

Applying a Faculty-Centric Lens to the Solutions

Time and Frustration Become Key Metrics in Reducing Burden

Research Administrative Burden on Faculty

Can we move burden away from faculty?

Can we eliminate any of this burden outright?

Streamlining Administrative Processes

How can we make processes easier to navigate while still maintaining efficiency?

Cultivating Faculty-Focused Support Services

How can we instill a customer-centric mindset in admin staff to reduce frustration for PIs?

Increasing Proposal Success Rates

How can we improve proposal quality so PIs spend less time trying to win grants?

Wrangling Compliance

How can we reduce self-imposed regulatory burden while remaining compliant and reducing process frustration?

Source: EAB interviews and analysis.

Minimizing the Administrative Burden on Faculty

Strategies to Ensure Researchers Spend More Time in the Lab

Shifting Burden | **Reducing Burden**

1. Streamlining Administrative Processes

1) PI Journey Map
2) Org Model Depolarization
3) Functional Responsibility Matrix
4) Software Vendor Evaluation Checklist
5) Shared Accountability Dashboards

2. Cultivating Faculty-Focused Support Services

6) Customer-Centric Hiring Requirements
7) Multidimensional Performance Evaluation
8) Professional Development Curriculum
9) Career Ladders and Progression Paths
10) Structured Administrator-PI Engagements

3. Increasing Proposal Success Rates

11) Tailored Funding Broker
12) Full-Service Proposal Development
13) Systematized Feedback Capture

4. Wrangling Compliance

14) Compliance Procedure Complexity Audit
15) Pre-Scripted Compliance Language
16) Compliance Demonstration Pilot

EAB

Shifting Burden

1. Streamlining Administrative Processes

1) PI Journey Map
2) Org Model Depolarization
3) Functional Responsibility Matrix
4) Software Vendor Evaluation Checklist
5) Shared Accountability Dashboards

2. Cultivating Faculty-Focused Support Services

6) Customer-Centric Hiring Requirements
7) Multidimensional Performance Evaluation
8) Professional Development Curriculum
9) Career Ladders and Progression Paths
10) Structured Administrator-PI Engagements

Reducing Burden

3. Increasing Proposal Success Rates

11) Tailored Funding Broker
12) Full-Service Proposal Development
13) Systematized Feedback Capture

4. Wrangling Compliance

14) Compliance Procedure Complexity Audit
15) Pre-Scripted Compliance Language
16) Compliance Demonstration Pilot

Balancing Aspirations with Reality

CROs[1], PIs Have Different Experiences with Research Office

CROs Envision an Office That…

- Provides high-quality customer service that effectively matches PI needs
- Utilizes comprehensive electronic systems to improve efficiency from idea to award closeout
- Establishes policies and processes that create a seamless experience through the grant lifecycle

In Reality, PIs Often Feel They Are…

- Working with the office of "no", who tells them things they can't do without providing solutions
- Completing endless, redundant paperwork and forms
- Dealing with a series of bottlenecks and hoops to jump through

1) CRO: Chief Research Officer.

Source: EAB interviews and analysis.

Removing Roadblocks and Redundancies

Tactics to Overcome Hurdles and Streamline Administrative Processes

Research offices hears PI complaints about problems only when they become a big enough frustration

CROs have limited say in the organizational structures and varying degrees of control over administrative staff

Redundant and confusing steps in the grant lifecycle frustrate PIs and administrators, unclear delegation of ownership at certain points

Software solutions are a huge investment of time and money and rarely provide the outcomes users need and want

Research offices not leveraging and analyzing existing data on a consistent basis

Tactic #1: PI Journey Map

Build a process map of the full grant lifecycle to identify service gaps and pain points

Tactic #2: Org Model Depolarization

Create an organizational structure that best aligns with your research enterprise

Tactic #3: Functional Responsibility Matrix

Assign ownership and responsibility for each step in the grant lifecycle

Tactic #4: Software Vendor Evaluation Checklist

Understand the key ingredients your electronic system should have to best match your needs

Tactic #5: Shared Accountability Dashboards

Use performance data to identify pain points, measure progress, and improve processes

Source: EAB interviews and analysis.

Walking a Mile in a PI's Shoes

Understanding the Journey from Idea to Award Closeout

PIs Often Follow More of a Ramble Through the Grant Lifecycle

?	?	?	?
"Besides Google, where do I go to find funding?"	*"Wait, wasn't I just here? I don't know who to talk to."*	*"Why can't I access my award yet? It's my money!"*	*"When do I need to submit my progress reports?"*

Source: EAB interviews and analysis.

Mapping the Customer Journey

Experiencing the Process from the User's Point of View

How Companies Use a Customer Journey Map

Defining a Customer Journey Map

- Illustrates the steps a customer takes in interacting with an organization
- Examines customer experience in engaging with products, services, online experience, etc.
- Details each actual touchpoint between customer and product or service, but not necessarily the ideal

Four Steps in Utilizing a Customer Journey Map

1. **Illustrate from the customer's point of view**, allowing for a complete understanding of the experience
2. **Engage stakeholders from each point on map**, drawing from the knowledge of those who interact with the customer at each stage
3. **Map how the processes actually occur**, not how it should ideally function
4. **Identify issues and implement changes** to improve customer experience

Putting the Map to Work

"The journey mapping process and results helped us **clearly see the pain points and gaps in the customer's experience**, including channel, content, and device gaps. It also **helped to build empathy** and increase understanding with our employees."

-USA.gov journey mapping team

Source: "Using Customer Journey Maps to Improve Customer Experience," *Harvard Business Review;* "When and How to Create Customer Journey Maps," Nielsen Norman Group; "Journey Mapping the Customer Experience: A USA.gov Case Study."

Creating a Customer Journey Map for Research

Identifying Roadblocks and Service Gaps

University of New Hampshire

Process for Developing a Customer Journey Map

Convened Customer Journey Task Force

- Group included a representative from sponsored programs, tech transfer, research development, core facilities, and research integrity
- Tasked group with mapping interactions between research office units and researchers

Mapped Research Processes

- Mapped each interaction between the researcher and research office from hiring to award closeout
- Reviewed all touchpoints and communication between the research office and researcher

Case in Brief: University of New Hampshire

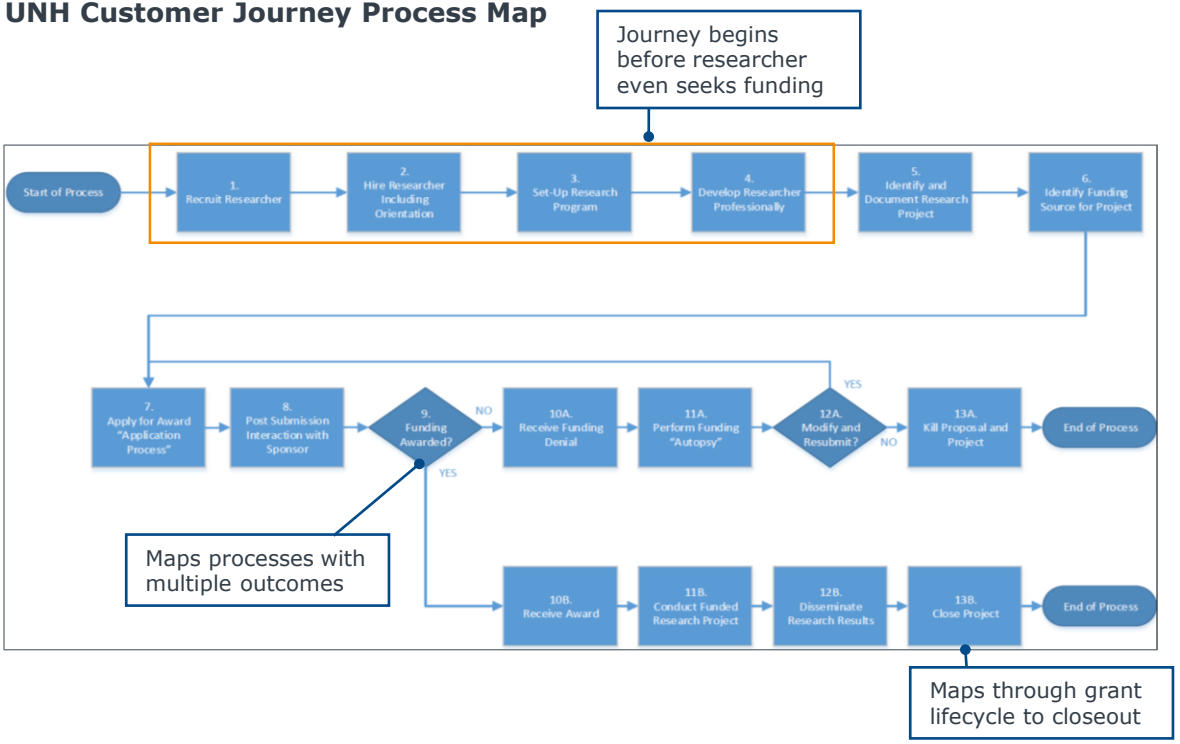
- Public, Doctoral University: Higher Research Activity located in Durham, New Hampshire
- $140M+ in research expenditures in FY2015
- Research office sought to improve consistency of service to PIs
- Created a customer journey map to understand the interactions of units in the research office with PIs and to identify areas for process and service improvement

Source: Higher Education Research and Development Survey (HERD) Fiscal Year 2015; UNH Lean-Project Team Charter; EAB interviews and analysis.

A PI's Journey from Recruitment to Closeout

Tool for Guiding Conversations with Researchers

UNH Customer Journey Process Map



Source: UNH OSVPR Customer Journey Process Map; EAB interviews and analysis.

Using the Map to Identify Service Gaps

Aligning Task Force Findings with PI Experience

Collaborating with Faculty to Understand Process Roadblocks

- Hosted 3 meetings, with about 90 participants total, that included faculty of all types and levels (new, tenured, research faculty, etc.)
- Task force presented processes they thought could be improved to see how those aligned with steps researchers identified for improvement
- Walked through process map and asked researchers where they saw room for improvement, grouped responses together by theme to highlight major issue areas
- Faculty identified the on-boarding and orientation processes as overwhelming and ripe for improvement

Implementing PI Suggestions to Improve Service

Faculty pinpointed front-end processes like new faculty on-boarding as area for improvement

Research office **redesigned on-boarding process** including streamlining communications, creating an orientation program, and increasing early in-person interaction with office

New faculty have **increased awareness of services of research office** and build relationships before they need support

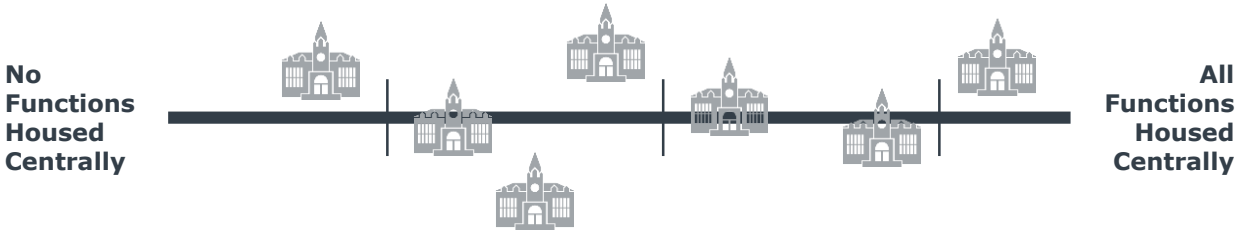
On-going improvements will focus on pre-award and include unit-based administrative staff in the process

Source: EAB interviews and analysis.

The Grass Is Always Greener

Research Admin Org Models Always Leave Something to Be Desired

An Imperfect Spectrum Makes for Challenging Comparisons



Focus Instead on Span of Control

Within Control

The biggest PI complaint for centrally managed functions is a **lack of personalized customer support.**

Outside of Control

The biggest PI complaints for unit-managed functions are a **lack of staff specialization** and **duplicative processes.**

Source: EAB interviews and analysis.

Central Processes Can Feel Personal, Too

Named and Known Research Administrators Improve PI Engagement

UNIVERSITY OF NOTRE DAME

Centrally Managed, Locally Deployed

Research administrators are part of a three person team that are:

- Hired and managed centrally
- Physically located in one of the colleges
- Covering pre-award, post-award and grant accounting processes
- Maintaining the same portfolio of faculty they support

Rightsizing Facetime

The Research Office at the **University of Pennsylvania** employs a similar model but limits staff time in colleges to 2-3 days a week. This limit reinforces that research administrators are central staff, and should not take on additional unit responsibilities.

Key Benefits

1 Faculty Appreciate Access

Centrally managed, locally deployed model mimics benefits of "named and known" decentral models while enhancing the service provided

2 Continuity is Key

Investigators know exactly who will be managing their proposal and grant at each stage of the process

3 Frontline Expertise Breeds Service Excellence

The research administrative teams meet in functional cohorts (e.g., pre-award, post-award and grant accounting) to share challenges and solutions from their respective colleges

Source: EAB interviews and analysis.

Improving Unit-Level Service from the Center

How to Leverage Team Identity, Training, and Workflow Improvements

Leverage Points	Sample Solutions
 **Creating a Sense of Identity**	Central research administrators at **Miami University (Ohio)** include **central business and finance staff** involved in research administration in their professional development trainings to **foster a "team" environment** across different offices.
 **Training Unit Staff from the Center**	The central research office at the **University of New Hampshire** offers **new hire and refresher training for all unit-based business processes staff** to integrate them as best as possible with the centralized pre- and post-award staff.
 **Appropriating Unit Workflow**	Unit-based research administrators at **Caltech** employ a **portfolio ranking and tracking system** that allows for **fluid workflow adjustments based on PI needs and staff capabilities**.
 **Eliminating Redundancy**	Central research administrators at **Northwestern University** asked unit-level administrators to send the central office a list of specific areas to review, rather than the central office conducting another full review of the proposal to reduce redundancy and turnaround time.

Source: EAB interviews and analysis.

The Hype vs. the Reality of Shared Services

Common Failure Paths of Integrating Research Admin into Shared Services

Ideal Process and Where It Falls Short

Establish a Goal of Shared Service Units

✖ Goal is either too broad to be realistic or politically written to serve another purpose

✔ Goal is based on desired outcomes and grounded in measurable milestones

Create Staffing Plan

✖ Staffing rates based on unit-level FTE[1] audit

✔ Staffing rates based on current unit FTEs and expertise, as well as central resource availability

Integrate Shared Services Center into Workflow

✖ New shared services center does what they are asked, duplicating efforts with central

✔ New workflow plans are developed with each shared services unit to determine which functions will remain central and which will live in the unit

Maintain Continuous Unit Funding

✖ Deans control unit funding, allowing them to cut staff lines without workflow considerations

✔ Unit funding is at least partially controlled by central research office, and adding or removing lines is negotiated

1) FTE: Full-Time Equivalent

Source: EAB interviews and analysis.

Assigning Responsibility Through Grant Process

Providing Guidance Through Clarity, Documentation

University of Colorado Boulder

Lack of Clarity Around Steps in Process Leads to Frustration, Inefficiencies

- Opportunities to shirk responsibilities that should fall in domain
- Duplicative processes and work cause frustration from researchers and administrators
- Administrative steps throughout grant lifecycle are unknown to researchers, cause confusion

Responsibility Matrix Designates Ownership, Documents Process

- Assigns clear ownership of each step to one person or office
- Highlights duplication of processes and overlapping responsibilities
- Provides clear guidance to researchers and administrators through the entire grant lifecycle

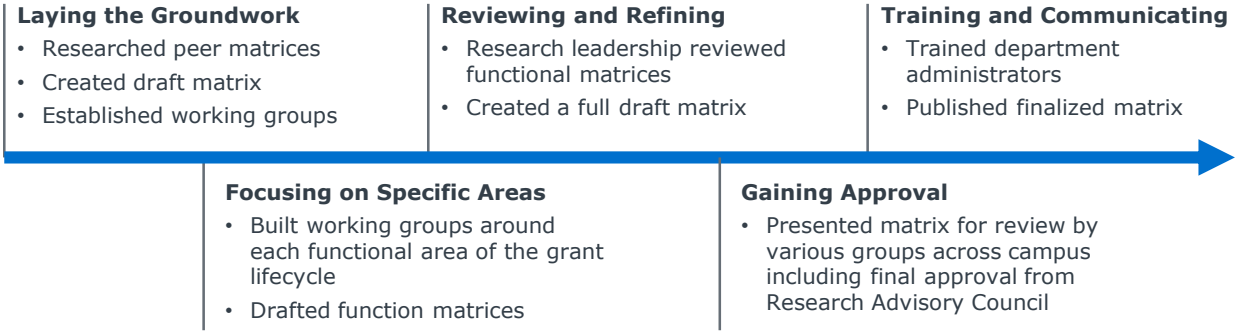
Case in Brief: University of Colorado Boulder

- Public, Doctoral University: Highest Research Activity located in Boulder, Colorado
- $420M+ in research expenditures in FY2015
- Office of Contracts and Grants and the Campus Controller's Office conducted a review of procedures in the research office
- Determined a document was needed to align roles and responsibilities across the entire lifecycle of a project

Source: HERD Survey Fiscal Year 2015; Office of Contracts and Grants Roles and Responsibilities Matrix Background; EAB interviews and analysis.

Ensuring Coverage, Removing Unnecessary Steps

Developing a Comprehensive Responsibility Matrix



Finding Inefficiencies, Reducing Redundancy and Paperwork

- Responsibility matrix highlighted inefficiencies in award closeout process which involved Office of Contracts and Grants (OCG) and Sponsored Projects Accounting (SPA)
- Researchers were being bombarded with redundant forms and requests for information from OCG, SPA, and at times tech transfer, that was needed to close out an award
- OCG created the Award Closeout Tool, a clear and simple two-page form that details each step a department/unit administrator needs to complete to close out an award

Source: CU Boulder Roles and Responsibility Matrix Background; EAB interviews and analysis.

Zeroing in on the Right Level of Detail

Designating Ownership for Each Step

CU Boulder Roles and Responsibility Matrix

Research Administration: Roles and Responsibilities Matrix
Adopted April 2015

ROLE DESIGNATIONS LEGEND

Primary Responsibility for action/implementation of tasks:
P = PRIMARY currently
PF = PRIMARY in FUTURE

Support/Consult, as necessary
S = SUPPORT currently
SF = SUPPORT in FUTURE

RESEARCH ADMINISTRATION PROCESS	Principal Investigator (PI)	Office of Contracts and Grants (OCG)	Sponsored Projects Accounting (SPA)	Department Administrator	Technology Transfer Office (TTO)	Office of Industry Collaboration (OIC) (for industry research only)	Research Compliance Offices: Export, COI, IRB, IACUC	Property Accounting Office (PAO)
Pre Award								
Preparing to Submit a Proposal								
Locate funding opportunity	P	S				S		
Read and interpret proposal guidelines	P	S				S	S	
Prepare Non-Disclosure Agreements, as needed	S				P	S		
Prepare Teaming Agreements, as needed	S	P				S		
File Annual DEPA	P						S	
Proposal Development								
Obtain and understand sponsor instructions for proposal preparation	P	S		S				
Identify Cost Sharing in proposal and obtain cost share approval from Department	P	S						
Identify and indicate approvals needed for proposal	S	P						
Completion of Proposal PI Checklist/Intake Form	P			S				
Provide guidance to PI on proposal preparation		P		S	S	S		
Develop and revise technical narrative, Bio sketches, Current and Pending	P			S				
Develop administrative pages of proposal		P		S				
Ensure required Effort available, if awarded	P		S					
Identify subcontractors/collaborators	P							
Request and collect necessary Subcontractor Budget, Statement of Work (SOW), Commitment Form and Sole Source Justification	P	S		S				
Notify Office of Industry Collaboration of proposal with Industry (non federal/non federal flowthrough)	S	P						
Draft Budget [Proposal Development module in Boulder eRA will empower PIs to create budgets]	S/ PF with eRA	P		S				

Source: CU Boulder Office of Contracts and Grants, Roles And Responsibility Matrix 2015.

More than Just a Piece of Paper

Building a Matrix that Improves Processes Through Clarity

Characteristics of a Successful Matrix Creation Process

Well-Researched Process

Dedicated ample time early in the process to **reviewing matrices of other research institutions** to understand key components to include

Broad Stakeholder Engagement

Involved **over 40 volunteers from across campus** to participate in **11 working groups**; 1 pre-award group and 10 post-award

Clearly Defined Areas of Focus

Working groups defined all tasks associated with **15 specific functional areas** in the grant process

Ongoing Review and Adjustment

Understand that the matrix is a "living document" and over time **review to ensure matrix accurately reflects processes**

Empowering Experts, Gathering Input from Across Campus

PIs who serve on a Faculty Advisory Board

Department administrators active in campus-wide meeting group

Long-tenured administrators with specific process and subject expertise

Administrators from units of all types and sizes (including centers/institutes)

Source: "Roles and Responsibility Matrix Background"; EAB interviews and analysis.

Your Search for the Holy Grail Continues

Key Deficits Holding Back the Perfect ERA System

Cost-Effectiveness

- Current vendors require significant upfront licensing cost or large investments in developers
- Long-term maintenance and staffing costs required across vendors; update and downtime losses occur often as well

Cradle-to-Grave Capabilities

- No single vendor offers a (good) full package of research administration services
- No vendor fully incorporates the peripheral administrative services (e.g., faculty expertise databases, funding sources, commercialization management)

Plug-and-Play Implementation

- Most vendors require significant implementation timelines
- Maintenance, updates, and new modules also require additional installation time that limit usability

Seamless Integration

- Most sophisticated vendors are standalone ERA tools that do not ladder well to university financial reporting systems
- Building crosswalks between systems requires significant cost and time
- Timely report generation lacking even in integrated products

1) ERA: Electronic Research Administration

Source: EAB interviews and analysis.

A New Evaluation Framework for ERAs

The Five Questions to Answer Before Vetting a Vendor

Software Philosophy:

Are you a "best-in-breed" or a "one-size-fits-all" institution?

Must-Have Features:

What's the biggest service gap on campus?

Resources and Time:

What's the budget and how long until we *need* it?

Implementation Plan:

What modules first, and where to begin?

Currently Active Vendors:

Do we *have* to buy from our CRM/financial system vendor?

How the Five Questions Ease Vendor Evaluation

- ✓ Reduces the number of vendors to consider
- ✓ Reduces time spent on vendor evaluations
- ✓ Speeds up time to implementation

Source: EAB's IT Forum "Supporting Frontline IT Purchasing in the Cloud Era"; EAB interviews and analysis.

Going Beyond the Canned Presentation

Ask Vendors to Address Specific Gaps with Capabilities Tests

Three Common Evaluation Pitfalls and How to Improve Them

✖ "What all can your platform do?"

✔ "Show me how your platform does *X, Y, and Z.*"

With the **Must-Have Features** list in-hand, evaluation teams get more from watching each vendor demonstrate how their tool solves certain problems.

Key Metrics:

- Time to complete task
- Effort to complete task
- Accessibility of task information

✖ "How much does your platform cost?"

✔ "My budget is *$XX.* What can you offer me within this price range?"

By understanding the institution's **Software Philosophy** and having already determined **Resources and Time**, discussing budget with a vendor becomes a distinction of service for price, rather than price for service.

Key Metrics:

- Maintenance and renewal costs
- *Estimated* cost of support staff and/or customer support

✖ "Who can I talk to that already uses your platform?"

✔ "I've talked to *X* number of your clients, how do you respond to their feedback?"

With an **Implementation Plan** in place, institutions can leverage current-user feedback from peers to vet vendor's execution time and customer service.

Key Metrics:

- Peer satisfaction with product
- Successes and/or failures
- Installation timeline
- Cost (if willing to share)

Source: EAB's IT Forum "Supporting Frontline IT Purchasing in the Cloud Era"; EAB interviews and analysis.

A Better Approach to Performance Assessment

Improving Performance Requires Baseline Measurements

From Limited, Piecemeal Collection…	…To Useful, Timely Analysis
Tracking some metrics but not reviewing at regular intervals	Continuously reviewing metrics to identify pain points and areas for improvement
Soliciting feedback too often or not often enough	Collecting quantitative and qualitative feedback at appropriate intervals
Keeping metrics locked up and only using data internally	Publishing data for all to see
Failing to utilize information that is already being collected	Using existing systems and data to build metrics reports

Source: EAB interviews and analysis.

Providing Transparency Around Performance

Publicizing Data Highlights Successes and Areas for Improvement

BOSTON UNIVERSITY

Building a System to Monitor and Measure Metrics

Data stored and accessed through existing SharePoint system

Development process (designing and building reports) began Fall 2015, first report published in April 2016

Dedicated a portion of one FTE's time to managing data and reports

Case in Brief: Boston University

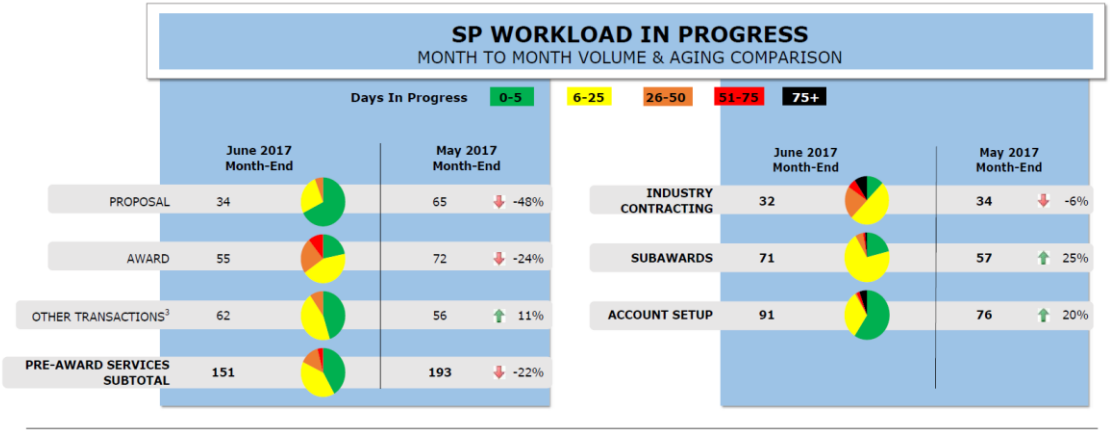
- Private, Doctoral University: Highest Research Activity located in Boston, Massachusetts
- $380M+ in research expenditures in FY2015
- New leadership in research office sought to make changes to improve performance, service, and reputation
- Created monthly report of office performance metrics showing funding performance, workloads and productivity, processing times and submission timeliness and quality
- Publicized reports and internally analyzed data to identify and target areas for improvement
- Frequent PI satisfaction surveys provide qualitative feedback and context to the metrics

Source: HERD Survey Fiscal Year 2015; EAB interviews and analysis.

Monitoring Workload and Productivity

Eliminating Backlogs of Aging Transactions

BU Executive Dashboard



TRENDS & ANALYSIS

- All SP Teams have been focusing on addressing aged items and **transactions aged 51-75 and 75+ days.** Pre-Award Teams have eliminated all aging actions in the 75+ bucket.

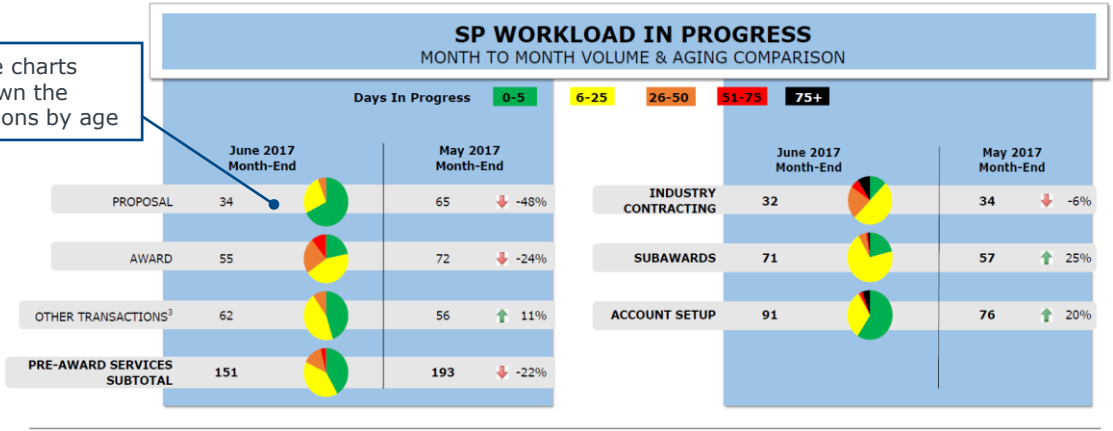
Source: BU May 2017 Executive Dashboard Sponsored Programs,

Monitoring Workload and Productivity

Eliminating Backlogs of Aging Transactions

BU Executive Dashboard

Color pie charts breakdown the transactions by age



TRENDS & ANALYSIS

- All SP Teams have been focusing on addressing aged items and **transactions aged 51-75 and 75+ days.** Pre-Award Teams have eliminated all aging actions in the 75+ bucket.

Source: BU May 2017 Executive Dashboard Sponsored Programs.

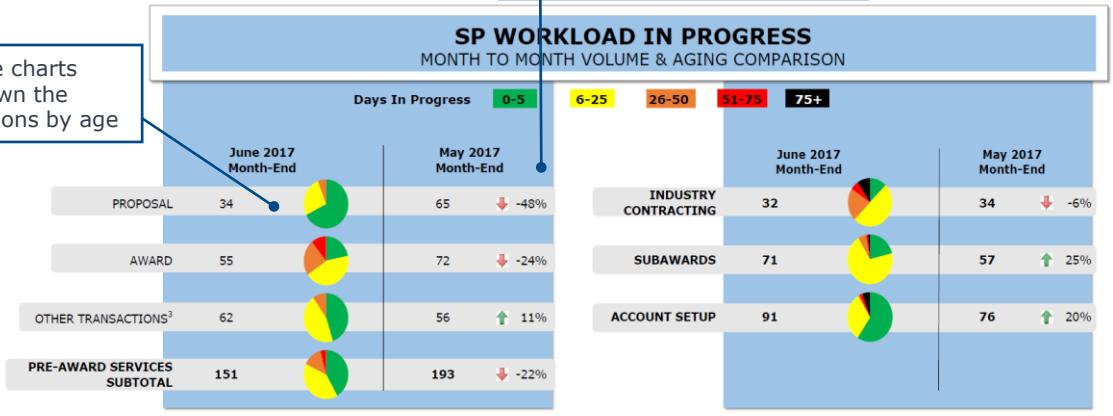
Monitoring Workload and Productivity

Eliminating Backlogs of Aging Transactions

BU Executive Dashboard

The percent change show how workloads have changed from the previous month

Color pie charts breakdown the transactions by age



TRENDS & ANALYSIS

- All SP Teams have been focusing on addressing aged items and **transactions aged 51-75 and 75+ days.** Pre-Award Teams have eliminated all aging actions in the 75+ bucket.

Source: BU May 2017 Executive Dashboard Sponsored Programs.

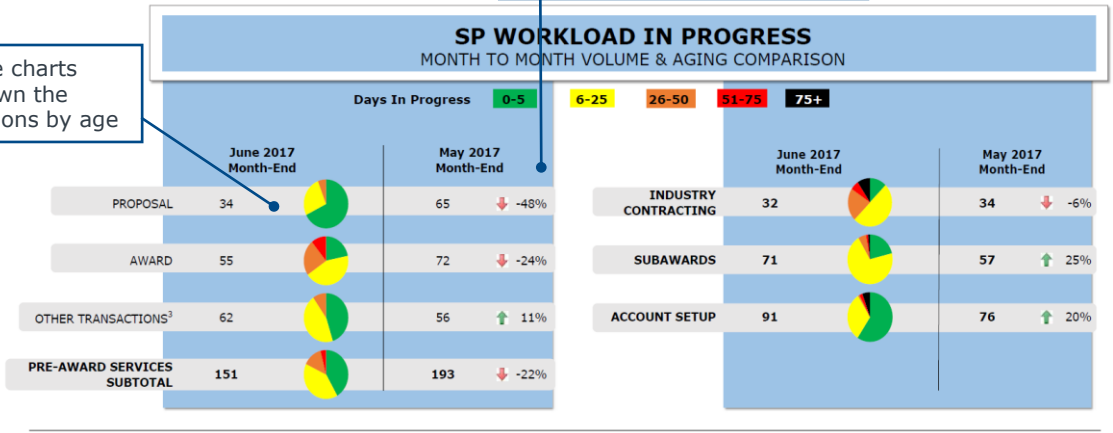
Monitoring Workload and Productivity

Eliminating Backlogs of Aging Transactions

BU Executive Dashboard

The percent change show how workloads have changed from the previous month

Color pie charts breakdown the transactions by age



TRENDS & ANALYSIS

- All SP Teams have been focusing on addressing aged items and **transactions aged 51-75 and 75+ days.** Pre-Award Teams have eliminated all aging actions in the 75+ bucket.

A brief section provides context, progress updates, and analysis of the graphic

Source: BU May 2017 Executive Dashboard Sponsored Programs.

From Data Points to Action Items

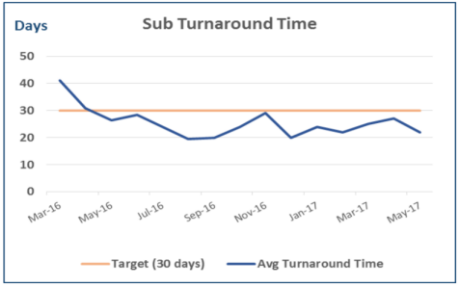
Measuring Metrics, Learning from the Data, Implementing Change

Four Steps to Maximize the Impact of Metrics

1. Publish monthly dashboard on research website for faculty and all to see
2. Share data at Advisory Council for Research Administration monthly meeting
3. Analyze data to identify areas for improvement and action steps
4. Implement targeted process and staffing changes to improve performance

Targeting Subaward Turnaround Time

- Time for BU to issue and execute a sub-agreement under an award was between 80-100 days
- Began to track time and location of subaward in the process to identify roadblocks
- Identified lack of standard operating procedures, created process to streamline and clarify
- Turnaround now has a target of 30 days or less, goal has been achieved since May 2016



Source: BU May 2017 Executive Dashboard Sponsored Programs; EAB interviews and analysis.

Adding Context to the Numbers

Satisfaction Survey Provides More Insight to the Metrics

Components of PI Satisfaction Survey

Satisfaction Survey Questions

Comments on Process and Experience

Suggestions for Improvement

Key Features of Survey Utilization

1 **Frequency**

After PI submits a proposal, RA[1] sends the satisfaction survey to the PI as part of the confirmation of submission

2 **Linking PI Feedback to Staff Evaluation**

Individual RA monthly evaluations include relevant PI comments and feedback

3 **Responding to PI Suggestions**

Staff follow up on each PI suggestion and work to incorporate suggestions whenever feasible

Complaint About Redundant Work Leads to Proposal Summary Form

- PI complains about forms to complete at beginning of proposal, filling out redundant information
- Research office reexamined each form and evaluated the necessity of each piece of information
- Created a new Proposal Summary Form, consolidating the existing proposal summary form with supporting forms (export control, cost sharing, international research)
- Proposal Summary Form is now a 3 page, fillable PDF that supports electronic signatures

1) RA: Research Administrator

Source: EAB interviews and analysis.

EAB

Shifting Burden

Reducing Burden

1. Streamlining Administrative Processes

1) PI Journey Map
2) Org Model Depolarization
3) Functional Responsibility Matrix
4) Software Vendor Evaluation Checklist
5) Shared Accountability Dashboards

2. Cultivating Faculty-Focused Support Services

6) Customer-Centric Hiring Requirements
7) Multidimensional Performance Evaluation
8) Professional Development Curriculum
9) Career Ladders and Progression Paths
10) Structured Administrator-PI Engagements

3. Increasing Proposal Success Rates

11) Tailored Funding Broker
12) Full-Service Proposal Development
13) Systematized Feedback Capture

4. Wrangling Compliance

14) Compliance Procedure Complexity Audit
15) Pre-Scripted Compliance Language
16) Compliance Demonstration Pilot

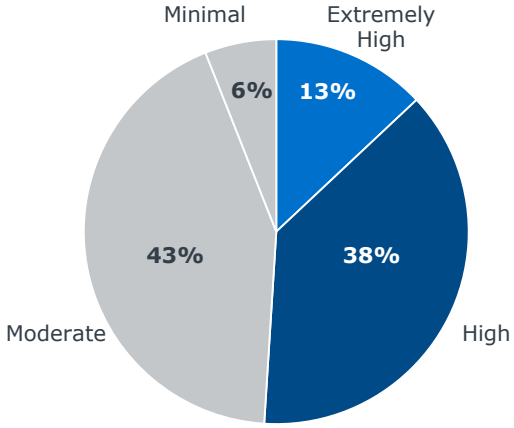
Administrators Are Feeling the Pressure

High Stress Levels Have Downstream Effects

Research Administrators Feel the Stress of Their Work…

Perceived Stress Levels (2015)

n=652



…And That Stress Can Lead to Turnover That Directly Impact PIs

- Unknown or constantly changing points of contact
- New and inexperienced administrators filling empty roles
- Lost institutional knowledge and established relationships
- Lack of confidence in administrators' capabilities

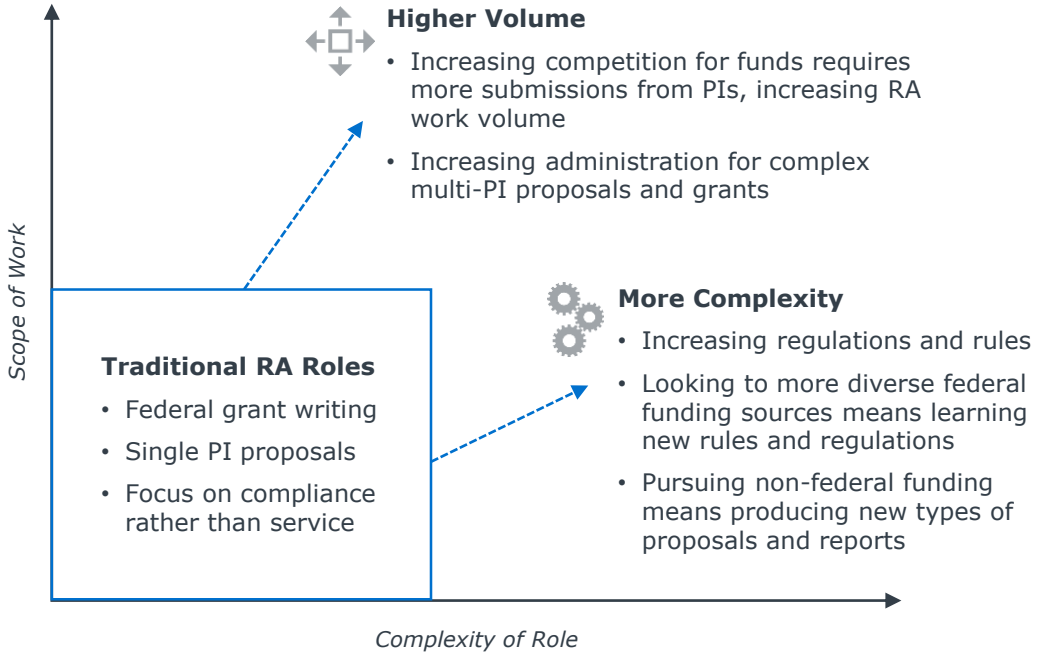
18-24 Estimated number of months to train a new research administrator

Source: Jennifer Shambrook, "Results of the 2015 RASPerS: Stress, work-life balance, and health behavior."; EAB interviews and analysis.

The Evolving Role of Research Administrators

Administrator's Workload Increasing in Depth and Breadth

Increasing Scope and Complexity of Research Administrator Role



Source: EAB interviews and analysis.

Building a Team Around Service to PIs

Tactics to Cultivate Faculty-Focused Support Services

PI Suggestions for Improved Administrative Support

"Hire more dedicated & qualified staff with **customer service orientation**"

"More **consistent & timely communication** & responsiveness"

"**Improve training**"

"**Reduce turnover** and workload"

"**More face-to-face** with PIs"

"**Improve awareness** of (offices) and services offered"

Tactic #6: Customer-Centric Hiring Requirements

Evaluate staffing needs and hire strategically when job openings occur

Tactic #7: Multidimensional Performance Evaluation

Monitor administrator performance to identify areas for growth and improvement

Tactic #8: Professional Development Curriculum

Provide on-campus training to create a consistently skilled workforce

Tactic #9: Career Ladders and Progression Paths

Create career growth opportunities to retain research administrators

Tactic #10: Structured Administrator-PI Engagements

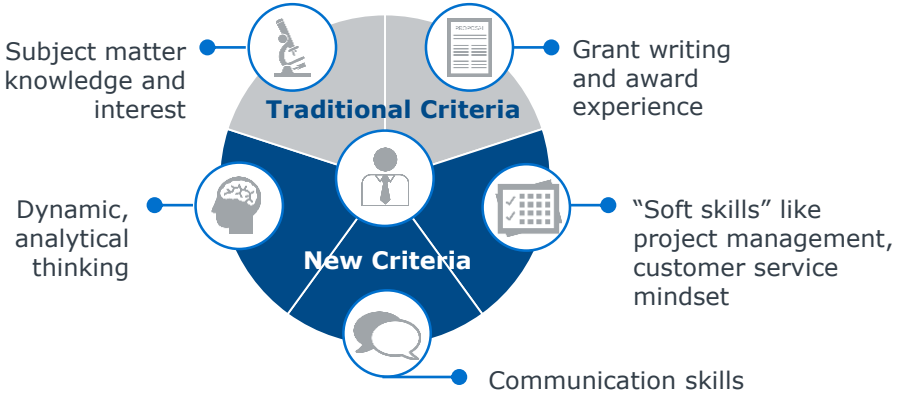
Offer frequent, in-person events to foster PI-administrator relationships

Source: UCSF Office of Sponsored Research "Online Satisfaction Survey, 2014"; EAB interviews and analysis.

Hiring Smarter, Not Hiring More

Taking Advantage of Job Openings

Rethinking the Traditional Research Administrator Role



PIs Say "Just Hire More Staff"

27% Average estimated reduction in administrative responsibilities with sufficient administrative support

4 Number of hours per week PIs estimate could be regained for research with sufficient administrative support

Source: FDP 2012 Faculty Workload Survey Research Report; EAB interviews and analysis.

Hiring for Today's Research Enterprise

Mapping Needs to Job Criteria

Identified Need #1

Dynamic, analytical thinking

Criteria #1

"Ability, to **analyze large amount of data, formulating conclusions** and provide summary level reports as needed"

Identified Need #2

"Soft skills" like project management, customer service mindset

Criteria #2

"Attention to detail, **decision-making skills**, and collaborative attitude required"

"Willingness to be a team leader or collaborator **utilizing appropriate time/resource management** having a high regard of personal responsibility with respect for confidentiality"

Identified Need #3

Strong verbal and written communication skills

Criteria #3

"Excellent written and verbal communication skills; **courteous and professional in all communication**; ability to maintain discretion and confidentiality in all professional matters"

"Ability to **communicate effectively both verbally and in writing** with all levels of the organization"

Source: "Job Posting: Compliance Specialist," Villanova University; "Job posting: Research Administrator, Sponsored Programs," Duke University; EAB interviews and analysis;

Boosting Administrator Performance

Using Data as a Conversation Starter

BOSTON UNIVERSITY

Creating a Professional Staff and Changing Office Culture

Improving Individual Performance

- Measuring and evaluating performance regularly
- Providing training and development opportunities

Setting Up Staff for Success

- Implementing standard operating procedures
- Building a tiered organizational structure
- Hiring staff for skills and mentality

Individual Evaluations Inform Monthly Conversations Around Performance

Research Administrator sends PI feedback survey along with confirmation of each submitted proposal

Export monthly performance data (individual and office) from SharePoint system

PI feedback and performance metrics informs conversation between managers and administrators

Source: EAB interviews and analysis.

Building a Customer Service Culture

Getting a Complete Picture of Performance

Three Essential Elements of Performance Evaluation

Quantitative Metrics

- **Performance Metrics**
  - Number of closed transactions including proposals, awards, and sponsors actions
  - Process cycle times (in days) for preliminary review, review initiated and transition/closeout
- **Comparative Data**
  - Individual and office level metrics
  - Current and previous month's data to monitor changing workloads

Qualitative Feedback

- **PI Satisfaction Survey**
  - Feedback from PIs is collected at the end of the proposal process
- **RA Self-Review**
  - RAs submit their own feedback, can highlight specific events or circumstances that may have affected metrics and performance
- **Manager Feedback**
  - Manager provides written feedback with an emphasis on positive aspects and strengths

Improvement-Oriented Conversations

- **RA-Manager Meeting**
  - Data informs a conversation on previous month's performance
  - Opportunity to discuss qualitative and quantitative feedback
- **RA Group Meeting**
  - RAs meet weekly to discuss what has and has not been going well, opportunity to share lessons learned and best practices

Source: Boston University Office of Sponsored Programs Performance Review; EAB interviews and analysis.

Raising the Bar for Service to PIs

Centralized Support for All Administrators

AUBURN UNIVERSITY

Providing Consistent Administrative Services Through Education

- Inconsistent skill levels and service to PIs
- Siloed departments that don't communicate well with each other
- Limited opportunities for professional development and career growth

COMPASS Program

- Educating
- Mentoring
- Connecting

- Department administrators provide consistent service and support to PIs
- Administrators connect across departments to help each other
- Administrators have access to professional development on campus

Case in Brief: Auburn University

- Public, Doctoral University: Higher Research Activity located in Auburn, Alabama
- $135M+ in research expenditures in FY2015
- Central research office wanted to ensure that PIs had strong support and skilled administrators to work with in the units
- Created the COMPASS Program to provide educational courses and support services to research administrators from across campus, including a certification program

Source: HERD Survey Fiscal Year 2015; EAB interviews and analysis.

COMPASS Curriculum at a Glance

On-Campus Resources for Every Stage in an Administrator's Career

Laying The Foundation

Introductory Course

- One half-day session
- Covers the basics of sponsored projects
- Introduction to pre-award, budgeting, contracts and grants and compliance
- Pre-requisite for COMPASS certification course

Becoming an Expert

Certification Course

- Weekly half-day sessions in fall and spring semesters
- Fall semester focuses on specifics of grant lifecycle, Spring focuses on electives
- Includes case studies, lectures, and discussion

Supporting Resources

- Brown Bag Lunches
- Mentoring Program
- COMPASS Listserv
- COMPASS library
- Best Management Practices Guide

Continuing Learning

Refresher Course

- One half-day session
- Interactive, exercise-based course
- Builds on certification course content and provides updates on policies and procedures

Source: "COMPASS Program Offerings"; EAB interviews and analysis.

In Their Own Words

COMPASS Graduates Reflect on Program's Impact

Improving Support To Researchers in Departments

" …Without the COMPASS training I have received, **I would be unable to provide the level of service needed for my departmental faculty.** This training program has helped me to provide a higher level of administration to both **enhance and promote research in my department.** Anyone that does not take the opportunity to complete this course will miss out on a multitude of advantages available to individuals administering in the research administration field."

- Contract and Grants Coordinator II
Department of Biological Sciences, College of Sciences and Mathematics

Creating a Network of Administrators on Campus

"The program gave me a good foundation of the many elements of sponsored programs and research. **I also met many partners across Auburn's campus who I can call on when questions arise**."

- Internal Auditor II
Office of Audit, Compliance and Privacy

Growing Administrator Knowledge

"The COMPASS certification program provided invaluable support in two areas: it very effectively **increased the breadth and the depth of my knowledge** of issues, procedures and processes related to research administration; and it provided a framework for me to **meet and interact with most of the staff** who currently support researchers and research processes here at Auburn. It is a valuable and useful program in every way."

- Associate Dean for Graduate Studies & Research
College of Architecture, Design and Construction

Source: EAB interviews and analysis.

Beyond Just Educating Administrators

Program Benefits Extend to Researchers, Institution

Researcher Benefits

- High-quality administrative support services
- Consistent service from administrators across campus
- Improved quality of administrative support decreases administrative burden

Administrator Benefits

- On-campus professional education
- Network of peers with a variety of skills and expertise
- Mentorship and career guidance

University Benefits

- Consistent training across departments and colleges
- On-campus credentialing for administrators
- A talent pool of certified research administrators

113 Administrators who have taken (or are currently enrolled in) the Auburn COMPASS Certification Course since August 2012

Source: EAB interviews and analysis.

Retaining Top Talent

Providing Administrators With a Clear Career Path

FIU FLORIDA INTERNATIONAL UNIVERSITY

From a Flat Organizational Structure…	…To Clearly Defined, Tiered Career Paths
Administrators leave for new opportunities at other institutions when looking for a pay raise	Clear career progression path with increasing pay and responsibility
Career advancement only occurs when someone retires or resigns	Internal growth opportunities lead to increased retention, improved morale
Inconsistency between titles and associated responsibilities and pay for similar roles	Campus-wide career levels map onto specific positions within each unit, create consistency across campus

Case in Brief: Florida International University (FIU)

- Public, Doctoral University: Highest Research Activity located in Miami, Florida
- $160M+ in research expenditures in FY2015
- Flat organizational structures provided limited room for career growth and resulted in turnover as staff had to look outside of the organization to move up
- FIU worked with HR to redesign organizational structures to create clear career paths and consistent categorization and responsibilities

Source: HERD Survey Fiscal Year 2015; EAB interviews and analysis.

Creating Career Ladders

Working with HR[1] to Create a New Organizational Structure

Partnering with Human Resources

- Research office sough to create career ladders
- Research office leadership approached human resources office to work together to solve problem of high turnover

Conducting External Research

- HR and research office conducted research together on organizational structure of other research universities
- Compiled a library of research administration titles from other universities

Creating a New Career Structure

- Created a tiered organizational structure
- Utilized library of titles to identify best titles to match existing roles and responsibilities

Mapping Staff to New Titles

- Examined pay, tenure, rank, and titles of existing staff
- Assigned appropriate new titles and pay grades to existing staff

Communicating Changes to Research Administration Staff

Impact of Research Administration Career Ladders on Campus

- Increased retention and morale of research administration staff
- Consistent staff in research office allows for more focus on improving level of support to PIs
- Human resources has built off this model to replicate this structure across campus

1) HR: Human Resources

Source: EAB interviews and analysis.

Implementing a New Structure

Clear Job Progression Paths Provide Administrators Room to Grow

Job Family	Sub-Family	Research Administration Specific Classifications	University-Wide Career Levels	Pay Grade
Research Administration	Pre-Award	Director Pre-Award	Administrator Level 4 (A4)	17
	Pre-Award	Associate Director Pre-Award	Administrator Level 3 (A3)	16
	Pre-Award	Assistant Director Pre-Award	Administrator Level 3 (A3)	15
	Pre-Award	Pre-Award Coordinator IV	Professional Level 4 (P4)	14
	Pre-Award	Pre-Award Coordinator III	Professional Level 3 (P3)	11
	Pre-Award	Pre-Award Coordinator II	Professional Level 2 (P2)	10
	Pre-Award	Pre-Award Coordinator I	Professional Level 1 (P1)	9

- Research administration subdivided by function
- Sub-families include pre- and post-award, grants administration, etc.

- Career progression is clearly visible through sub-family titles
- A title, like Pre-Award Coordinator, can have multiple levels to it

- Utilize university-wide career levels to create consistency across campus
- Present transparent information about pay grade, pay increases with position level

Source: FIU Career Ladders for Job Family: Research Administration; EAB interviews and analysis.

Building a Relationship with Researchers

Increasing Interactions to Raise Awareness of Services

University of New Hampshire

Researchers are Overwhelmed and Don't Know Who to Turn to

- New researchers overwhelmed with flood of outreach from many people
- Technology reduces in-person interaction between researchers and administrators
- Frustrated researchers don't know what support services exist
- Proliferation of "urban legends" due to of lack of information

Early Face-to-Face Interactions Foster Long-Term Relationships

- Streamlined communications and dedicated points of contact
- Focused extra attention on new researchers (in first two years)
- Created multiple opportunities for in-person interactions

Case in Brief: University of New Hampshire

- Results of customer journey mapping project highlighted new faculty on-boarding and orientation as areas for improvement
- Research office sought to improve relationship between researchers and administrators by increasing face-to-face interactions

Source: EAB interviews and analysis.

Communicating in the Right Way

Understanding When and How to Engage Researchers

Clear Communication Channels

Dedicated Process Point Person

Each unit within the research office dedicated a point person for each process step

Researchers contact point person with questions, point person can redirect as needed

Communication Preferences Survey

Researchers complete a survey to dictate frequency and types of communications they want to receive from the research office

Outcomes

Researchers know who to talk to when problems arise and dictate what communications they receive

Face-to-Face Interactions

Research "Speed Dating"

Each unit within research office has a table at October orientation for new hires

Attendees go table-by-table to meet staff and learn about the services they offer

Monthly Lunch With CRO

New researchers are invited to monthly lunch with CRO

Opportunity for researchers to ask questions, provide feedback, and learn about services

Attendees are entered to win $1,000 for research or scholarship

Outcomes

New researchers learn about support services before they need them, increasing likelihood of use

Source: EAB interviews and analysis.

Shifting Burden

1. Streamlining Administrative Processes

1) PI Journey Map
2) Org Model Depolarization
3) Functional Responsibility Matrix
4) Software Vendor Evaluation Checklist
5) Shared Accountability Dashboards

2. Cultivating Faculty-Focused Support Services

6) Customer-Centric Hiring Requirements
7) Multidimensional Performance Evaluation
8) Professional Development Curriculum
9) Career Ladders and Progression Paths
10) Structured Administrator-PI Engagements

Reducing Burden

3. Increasing Proposal Success Rates

11) Tailored Funding Broker
12) Full-Service Proposal Development
13) Systematized Feedback Capture

4. Wrangling Compliance

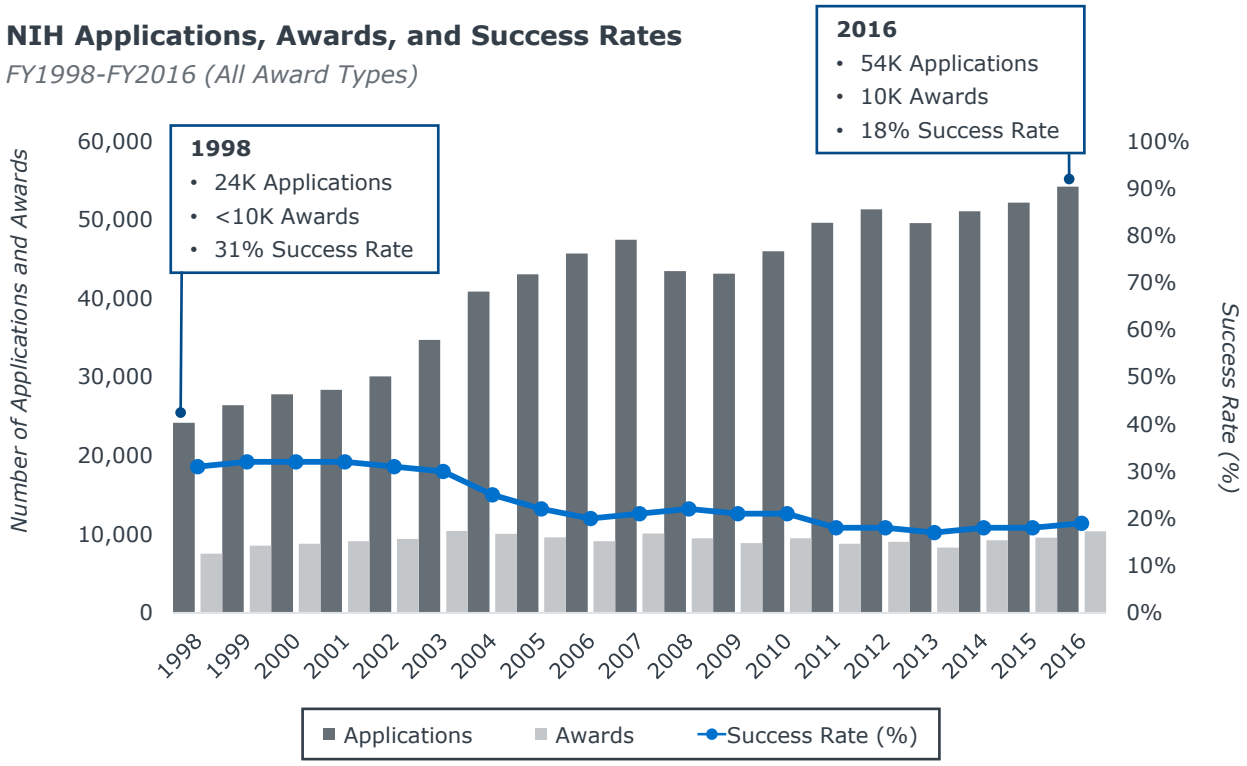
14) Compliance Procedure Complexity Audit
15) Pre-Scripted Compliance Language
16) Compliance Demonstration Pilot

Revving the Engine, but Running Low on Fuel

Deceleration of Federal Funding Does Not Decrease Demand for Awards

NIH Applications, Awards, and Success Rates

FY1998-FY2016 (All Award Types)



Source: NIH IMPAC, Success Rates File (2016); EAB interviews and analysis.

The Trickle-Down Effect of More Demand

Lower Success Rates, Stalled Careers, and Increased Burden on All

Less Money and More Applications Means Lower Success Rates…

31% → 18%

Decline in NIH success rate from 1998 to 2016

34% → 24%

Decline in NSF[1] success rate from 1998 to 2016

…Which Hinder Researchers' Careers…

34 → 44

Increase in average age of first-time R01 recipient from 1998 to 2016

…and Creates a Backlog of Work for Administrators.

An Epidemic of Late Submissions

"…in the last five years we've seen what I can only describe as an **epidemic of last minute and late submissions.** And there's a **direct relation between less funding and our PIs submitting more grants** than before and the extra work of late proposals on my staff."

Associate Vice President for Research Administration, Private R1 University

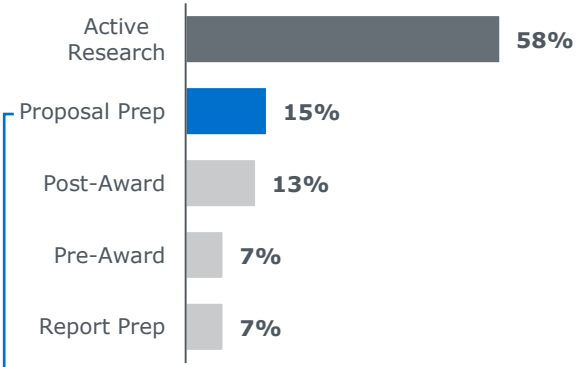
1) NSF: National Science Foundation.

Source: NIH Success Rates; NSF Success Rates; EAB interviews and analysis.

What Is Our Opportunity for Improvement?

Think About Hours, Engagement Instead of Dollars

Research Time Allocation



If faculty spend **4.2** hours per week on proposal prep that means they spend **3.4** hours per week on preparing **unsuccessful proposals** [1,2]

How Can We Improve Success Rates?

Tactic #11: Tailored Funding Broker

Limit funding opportunity promotions to those that faculty qualify to reduce time spent searching for grants

Tactic #12: Full-Service Proposal Development

Redeploy proposal support services to the tenure-ranks and disciplines in greatest need

Tactic #13: Systematized Feedback Capture

Collect and analyze feedback from reviews to enhance future proposals and increase success rates

1) Proposal prep is 15% of research time, which is 52% of 53.5 hours per week
2) Assuming 18% proposal success rate

Source: FDP, *Faculty Workload Survey* (2012); EAB interviews and analysis.

Funding Reality Reshaping Scientific Method

Should We Require Faculty to Also Have a PhD in Finding Funding?

'Seek Funding' Step Added to Scientific Method

Adapted from The Onion

the ONION

1 **Make an Observation**

2 **Ask a Question**

3 ***Seek Funding***

4 **Form a Hypothesis**

5 **Make a Prediction**

6 **Test the Prediction**

7 **Use Results to Iterate**

Too Many Sources

"There's how many directorates within each agency?"

Ineffective Tools

"Why does our funding portal show over 300 results for my discipline search?"

Unclear Expectations

"What do you mean this corporate contract isn't a grant?"

Source: The Onion *'Seek Funding' Step Added to Scientific Method* (2017); EAB interviews and analysis.

Elevating All Investigators to VIP Status

Offer Full Range of Research Development Services

UF UNIVERSITY of FLORIDA

Self-Service

- Traditional funding portal enhanced by improved user interface
- Includes manually uploaded opportunities from companies, federal and state agencies, and foundations

More-Tailored Service

- Weekly email of pre-vetted opportunities to all active researchers
- Collaborative opportunities distributed to research cohorts, centers and institutes

Customized Service

- Staff conduct personalized funding searches upon request
- Staff provide targeted funding searches for research cohort/cluster/ center review and realignment

Case in Brief: University of Florida

- Public, Doctoral University: Highest Research Activity located in Gainesville, Florida
- $740M+ in research expenditures in FY2015
- Sought mechanism for simplifying the funding identification process to help investigators find grants they had the best chance of winning
- Created the Research Program Development office, which offers similar services to a traditional research development office, but with several tailored offerings that enhance individual investigator success rates

Source: HERD Survey Fiscal Year 2015; EAB interviews and analysis.

Beyond Just Hyperlinks and Dollar Signs

Tailoring the Funding Opportunities Email for Maximum Utility

How to Distribute Funding Opportunities

Challenge:

Solicitations must offer breadth of sources, but not too many, as not to overwhelm prospective applicants

Solutions:

- Opportunities align with disciplinary interests
- Tailored to ensure university researchers are eligible

Turning 'Just Another Email' into a Must-Read

Vetting
All opportunities are screened for interest, applicability, and eligibility before being sent

Consistency
The email comes out once a week, 50 weeks a year, and has for the last 15+ years

Responsiveness
Scripting encourages interested faculty with questions or comments to respond, and research staff follow up promptly

Impact Highlights

8,500

Number of recipients, including faculty, grad students, postdocs, and staff

Will soon be able to track…

- Email-to-opportunity clickthrough rate
- Response rate for limited submissions

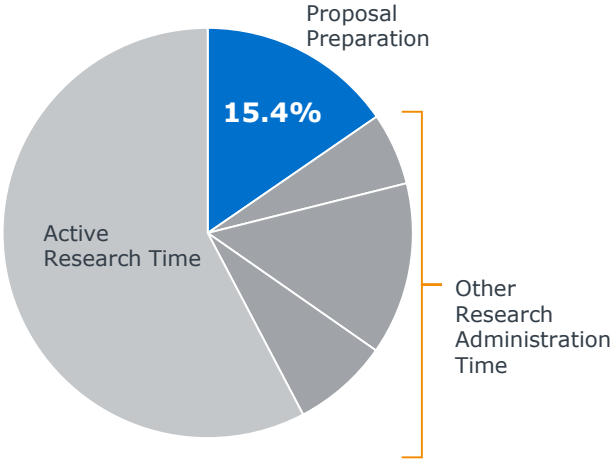
Source: EAB interviews and analysis.

Life's Certainties: Death, Taxes, Grant Paperwork

Proposal Preparation the Largest Portion of the 42%

Quantifying Proposal Burden…

Research Administration Workload
FDP's Faculty Workload Survey, 2012



…And Examining the Qualitative Causes

Inconsistent Templates
Every funder has their own desired proposal template

Differing Styles
Proposal writing requires short, specific communication of complicated ideas

Focus on Impact
Funders increasingly seek proposals with strong potential outcomes, rather than simply sound science

Source: Federal Demonstration Partnerships *Faculty Workload Survey* (2012); EAB interviews and analysis.

Prioritize the Most In-Demand Service Level

Disciplines and Faculty Determine Service Needs

Self-Service

Description

Services that faculty can obtain independently, at their leisure, and as needed

Examples

- Submission videos
- Writing guides
- Templated scripting

Prioritize if…

- Small number of active, self-sufficient researchers
- Large number of new, research-interested hires
- Primary funders have similar request processes

Individual Service

Description

Services that faculty can request from central research and unit-based support staff

Examples

- Pre-proposal reviews
- Peer-to-peer coaching
- ESL writing discussion

Prioritize if…

- Breaking into a new terrain or discipline
- Looking to grow in specific disciplines or with certain agencies
- Large number of ESL faculty

Group Service

Description

Services that faculty can access in cohorts through central or external entities

Examples

- Funding forecasts
- Discipline-specific trainings
- Large proposal support

Prioritize if…

- Pursuing large-scale, multidisciplinary grants
- Promoting interdisciplinary research
- Experiencing persistent lull in overall research funding

Source: EAB interviews and analysis.

An Issue of Focus Rather than Resources

Honing Existing Services to Tackle the Larger Problem

Source of Services and How to Maximize Impact

	Tenure-Level Faculty require differing types of support based on career level	Discipline Many disciplines have format requirements and linguistic styles that require differing services
1 Central Office Pre-award and research development officers serve as best front-line general proposal support	**Tenure-Track and Newly Tenured** Mid-Career Late-Career	STEM **Non-STEM** **Multidisciplinary**
2 Unit-Level More-tenured researchers and administrative content experts can offer greater discipline-specific support	Tenure-Track and Newly Tenured **Mid-Career** **Late-Career**	**STEM** Non-STEM Multidisciplinary
3 Outside the University Proposal writing and thematic support services available for hire; focused on late career faculty in competitive disciplines	Tenure-Track and Newly Tenured Mid-Career **Late-Career**	STEM Non-STEM **Multidisciplinary**

Source: EAB interviews and analysis.

Five Stages of Responding to Reviewer Feedback

Supportive Framework is Important, but Missing the Broader Lessons

1

Must be Another Dr. Barnhart…
(Denial)

2

What Do They Know?!
(Anger)

3

I Only Need One Postdoc, Right?
(Bargaining)

4

Maybe I Should Just Teach…
(Depression)

5

Fine, I'll Resubmit.
(Acceptance)

Response

Give them time and space. This is not the time for logical responses, but seek to minimize the damage of emotional responses.

Response

Begin to help separate actual improvement opportunities from perceived shortcomings.

Response

Ensure reviewer feedback is addressed and resubmissions are punctual.

What's Missing?

- No one ever asks researchers to share feedback
- Feedback is never centrally collected in a way that can benefit others

Source: Kübler-Ross, Elisabeth *On Death and Dying* (1969); EAB interviews and analysis.

Like Herding Angry, Disappointed Cats

Reviewer Feedback Is Sensitive and Personal, Making it Tougher to Collect

Why Don't More Schools Do This?

Lack of Process/Tools to collect, store, and analyze feedback

Lack of Buy-In on feedback collection and analysis value from unit-level administrators

Lack of Trust among PIs that sharing feedback will not harm them professionally

Excel/SharePoint

Pros

Inexpensive, easily accessible, universally used

Cons

Labor-intensive, insecure, version control problems

ERA Tool

Pros

Easily accessible, central and unit use, more secure

Cons

Expensive, limited analytical capabilities, tied to grants not themes

CRM Tool

Pros

Central and unit use, more secure, good analytical capabilities, can tie to themes

Cons

Expensive modules/licenses, upfront work to customize database

Source: EAB interviews and analysis.

Leveraging Your Fully-Loaded Feedback Analysis

Collected Feedback Only as Useful as What You Do With It

Applying Lessons from Feedback at Every Level

Improving Individuals

Coach With Peers

Opportunity Size

Example

Contact prominent researchers in fields where recent faculty proposals have been unsuccessful to provide individual coaching

Improving Cohorts

Tailor Trainings

Opportunity Size

Example

Adapt department-level and college-level grant writing trainings to focus on common feedback themes from rejected/resubmitted proposals

Improving the Institution

Identify Infrastructural Gaps

Opportunity Size

Example

Monitor opportunities for university investments that improve success rates

Source: EAB interviews and analysis.

Shifting Burden

1. Streamlining Administrative Processes

1) PI Journey Map
2) Org Model Depolarization
3) Functional Responsibility Matrix
4) Software Vendor Evaluation Checklist
5) Shared Accountability Dashboards

2. Cultivating Faculty-Focused Support Services

6) Customer-Centric Hiring Requirements
7) Multidimensional Performance Evaluation
8) Professional Development Curriculum
9) Career Ladders and Progression Paths
10) Structured Administrator-PI Engagements

Reducing Burden

3. Increasing Proposal Success Rates

11) Tailored Funding Broker
12) Full-Service Proposal Development
13) Systematized Feedback Capture

4. Wrangling Compliance

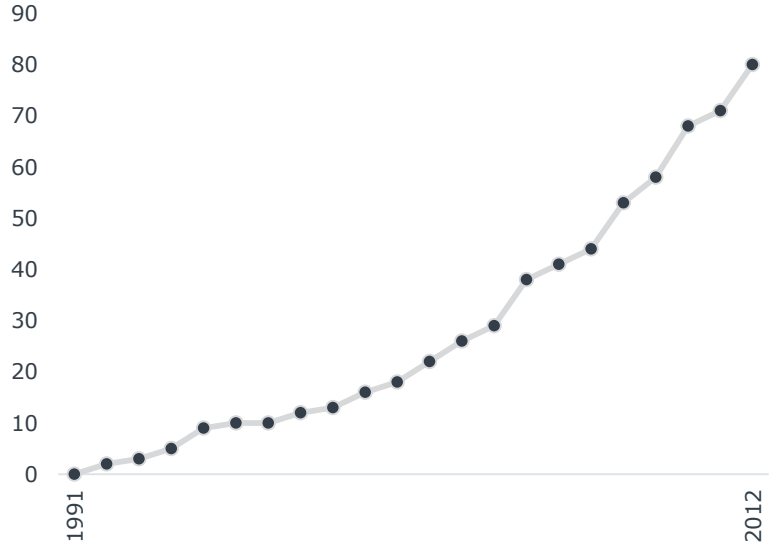
14) Compliance Procedure Complexity Audit
15) Pre-Scripted Compliance Language
16) Compliance Demonstration Pilot

Growing Regulatory Burden a Reality

Significant Increase in Rules and Government Enforcement

An Escalating Number of Rules to Follow…

Cumulative Number of New Regulations or Modifications of Existing Rules, 1991-2012



…And an Expanding Scope of Oversight

$60B

Federal budget outlay for regulatory personnel and expenses, up from $20B in 1990

2M+

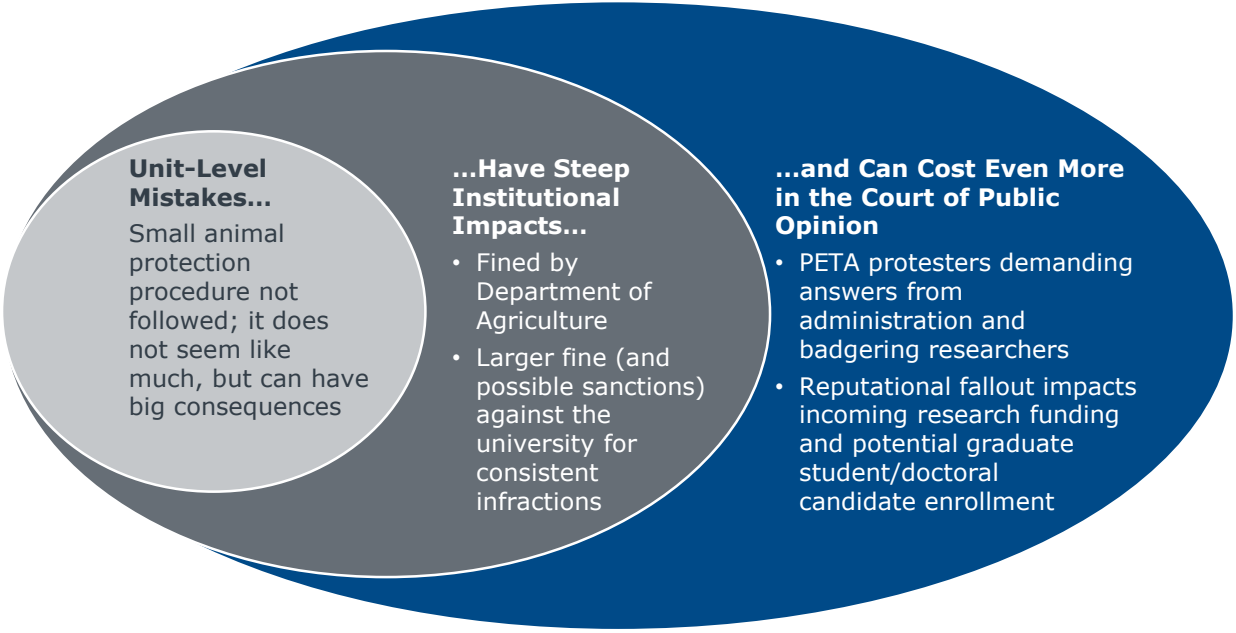
Number of pages added to the Federal Register since 1990

Source: FASEB Sustaining Discovery in Biological and Medical Sciences —analysis of COGR data (2015); Weidenbaum Center, Washington University and the George Washington University Regulatory Studies Center—derived from the Budget of the United States Government and related documents, (FY1990-FY2018).

One Little Mistake, Big Risk Potential

Pushing Back Against the "Be More Like the Private Sector" Mantra

Broader Impact of Small Mistakes



Source: EAB interviews and analysis.

An Effort Reduction Approach to Research Risk

How to Decrease Regulatory Work on Faculty While Remaining Compliant

Old Rules

Scaling Back Over-Compliant Procedures

As institutions attempt to keep pace with ever-changing regulations, some departments, labs, and centers adopt enforcement standards on their own that over estimate the legal requirements.

Tactic #14: Compliance Procedure Complexity Audit

Identify, stymie, and reverse the flow of self-imposed rules to reduce compliance burden

Automating Compliance Requirement Discovery

While the number of regulations continues to grow, most institutions have struggled to improve internal processes by which PIs secure sign-off for their work.

Tactic #15: Pre-Scripted Compliance Language

Adopt new technologies and tools that automate compliance sign-offs and scripting to balance administrative workload

New Rules

Reducing Cost and Risk of New Regulation Compliance

Universities spend an inordinate amount of time and money crafting policies to comply with new rules and adjusting procedures to match regulation changes, all at the risk of their final process failing to achieve compliance.

Tactic #16: Compliance Demonstration Pilot

Leverage professional associations and peer groups to source compliance ideas, pilot processes, and share findings to help decrease the cost and risk of complying with new rules

Equal Under the Law, Unequal Burden for Faculty

One-Size-Fits-All Risk Management Approach Insufficient to Support PIs

Areas of Administrative Burden

Number of Respondents Who Ranked Compliance Area in Top Three Most Burdensome

n=1,245

1) IACUC: Institutional Animal Care and Use Committee
2) IRB: Institutional Review Board

Source: FASEB Findings of the FASBET Survey on Administrative Burden (2013).

Sometimes Burden Lies Beneath the Rules

Audit Policies and Processes to Weed Out Undue Compliance Burden

Policy Audit

Step 1

Ensure Baseline Compliance

- Do your policies match most current standards?
- Do compliance stakeholders approve of updated language?
- Are all digital and physical policies up-to-date?

Procedure Audit

Step 2

Simplify Enforcement to Baseline Standard

- Are only the minimum legal standards applied?
- Do PIs and research administrators understand when to apply higher standards?
- Have duplicative processes been eliminated?

Audit Requirements

Most Up-to-Date Standards

Collect all current regulation language related to research compliance
Source: COGR, AAAS

Stakeholder Input

Solicit feedback from PIs and research admin staff about most painful processes
Source: FDP, internal surveys

Risk-Appetite Definition

Consult university executive leadership to determine palatable level of research risk
Source: Compliance accrediting groups, peer networks

Source: EAB interviews and analysis.

What to Keep, Adjust, and Review

A Post-Audit Framework for Balancing Compliance With Burden

Three Categories of Compliance Policies

Fully Compliant, Minimally Burdensome

Requires: No Changes

However, compliance staff should monitor rule changes to ensure approach remains balanced.

Example: Conflict of Interest (COI)

At *University A,* the Compliance Audit revealed that COI policies were in line with legal requirements without placing undue burden on PIs or staff.

Overly Compliant, Somewhat Burdensome

Requires: Procedure Changes

Likely require adherence to the most advanced standards; compliance staff should review the minimum required legal standards and realign processes to the bare minimum obligations.

Example: IACUC

At *University B,* many departments were still applying USDA standards to non-USDA protected species, which created extensive approval and review processes that were not legally required.

Lacking Final Rules, Seeking Direction

Requires: Policy and Procedure Changes

There are several active compliance topics without final resolutions. In these instances, institutions can model how different iterations could change administrative workloads and processes.

Example: Common Rule

Without a final rule to enact, *University C* has identified areas where they are likely to retain old IRB practices no longer required under the new rule (e.g., certifications, certain exemption sign-offs).

Source: EAB interviews and analysis.

Seek and Destroy Unnecessary Effort

Course-Correcting in Recognized Areas of Overburden

Common Areas of Overburden and Reduction Efforts

IACUC

- Lower default level of review
- Establish ranges of post-op review times
- Reduce non-health and safety required details
- Adopt procedure libraries for common practices

IRB

- Arrange reviews by risk level
- Tailor training requirements to only those necessary for proposed research at hand
- Consider extended approval periods for non-federal research

Lab Safety

- Develop lab-specific policies and procedures
- Employ functional training requirements
- Prioritize on-the-job training opportunities

Conflict of Interest

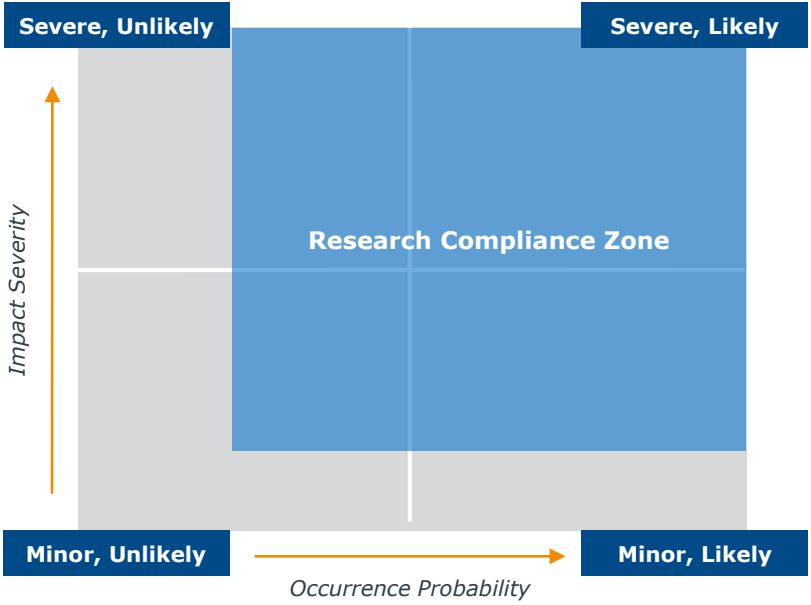
- Institute automated financial conflict reviews in reporting system
- Create levels of review and prioritize based on severity of risk

Source: COGR Administrative Burden Checklist; EAB interviews and analysis.

Worst Case Scenario Planning Cripples Research

Risk-Aversion Does More Process Harm Than Protective Good

What Risk Management Sees…



…And How That Translates For Researchers

- More pre-award legal language required
- Longer sign-off processes and queues
- Greater time spent on post-award reporting

Source: EAB interviews and analysis.

Enhancing Risk Discovery, Reducing Burden

Empowering PIs to Manage Data Compliance With Self-Service Tools

PennState

Screening for Types of Restricted Data

- Controlled Unclassified Data
- Gramm-Leach Bliley Act
- Contractual Restrictions
- PCI/FISMA/ITAR/ Export Control
- FERPA
- Intermediate and Educational Data
- PII/HIPAA
- Attorney/Client Privileged
- Pre-Published Data

Case in Brief: Pennsylvania State University

- Public, Doctoral University: Highest Research Activity located in State College, Pennsylvania
- $790M+ in research expenditures in FY2015
- Research and IT leadership recognized potential compliance problems if investigators fail to self-identify projects that include sensitive or restricted data
- IT office developed a self-service screening tool to help PIs know whether their project requires further intervention from the IT security team based on the data sources
- Tool then generates pre-approved legal language that investigators can copy and paste into their grant proposals

Source: HERD Survey Fiscal Year 2015; Pennsylvania State University's Information Classification Decision Tool (http://security.psu.edu/info-classification-decision-tool/); EAB interviews and analysis.

Immediate Answers to Complicated Questions

Yes/No Tool Eliminates Need for IT Review of Each Proposal

Sample Responses to Diagnostic Questions

Complex/ restricted projects escalated for IT review

2. Is your data controlled by the following regulations: PCI-DSS (Payment Card Industry – Data Security Standard), FISMA (The Federal Information Security Management Act), ITAR (International Traffic in Arms Regulations), EAR (Export Administration Regulations), or other Export Control regulations?

Yes | No

Data Classification: RESTRICTED

Your data may be classified as Restricted, depending on the contractual obligations. Specific examples of Restricted Data include: PCI-DSS (Payment Card Industry – Data Security Standard) complaint information, Export Controlled data such as ITAR (International Traffic in Arms Regulations) or EAR (Export Administration Regulations), and FISMA (The Federal Information Security Management Act) controlled data.

Most information in this category will require handling standards that are unique to the law, regulation, or contract that is applicable.

Consult with OIS for guidance on how to handle this information. If you have any questions please contact the Office of Information Security (OIS) at security@psu.edu.

Simple projects referred to policy

9. Does your data contain publicly available information, directory information, information made freely available by any public resource, or other already published data?

Yes | No

Data Classification: LOW

Instructions for handling data in this risk classification can be found in the Office of Information Security (OIS) maintained security standards as governed by Penn State Policy AD-95. If you have any questions please contact the Office of Information Security (OIS) at security@psu.edu.

Source: Pennsylvania State University's Information Classification Decision Tool (http://security.psu.edu/info-classification-decision-tool/); EAB interviews and analysis.

Jumping the Legal Language Sign-Off Queue

Pre-Loaded Scripting Allows for Quicker Proposal Submission

An Audit Disguised as a Survey…

Research Data Capture

- Serves as a means for information security staff to monitor the types of data involved in current research projects
- Gauges future resource needs based on changing agency requirements and investigator interests

…Yields Templatized Legal Language for How the University Complies with Data Standards

Pre-Scripted Data Security Language

- Auto-generates language about how the university can meet data security requirements if the proposal is approved
- Scripts pre-approved language from legal and compliance teams so PIs do not need to wait for sign-off before moving to the next stage of proposal submission

A Personalized Data Security Plan

- Produces a data management plan for faculty to follow if they win the grant
- Plans are pre-approved by information security staff so PIs do not need to re-engage IT after their grants are awarded

Source: EAB interviews and analysis.

The "New Rule" Fire Drill Is Getting Old

From Total Freak Out to Passive Prayer, Coping Mechanisms Ineffective

The Three Reactions to a New Regulation…

"Seriously, who even writes these things?!"

"Ha! This will never become an actual rule...right?"

"Ugh, fine, let's get to work. Where's the general counsel?"

…And the Same Process We All Follow

Review Regulation, Agree on New Campus Policy/Adaptation

- Institutions doing this at the same time with little coordination
- Agencies offer little to no support in streamlining efforts

Craft New Procedure/ Procedural Changes, Institute Test Cases

- Instituting new procedures is risky and can be expensive
- Selecting pilot spaces is equal parts practical and political

Draft Full-Campus Implementation Plan, Tier Unit-Level Rollout

- May require several iterations before procedure fits
- Time to implementation may not match required deadline

Source: EAB interviews and analysis.

Power in Names and Numbers

Leveraging Peer Groups to Reduce Cost and Risk of New Rules

Agree on the Problem

- Members select the most challenging regulation
- Members determine if the challenge is experienced similarly across campuses

Agree on Direction of Solutions

- Members discuss current practices for addressing the rule
- Members determine that existing solutions are insufficient, and new solutions are needed

Volunteer Pilots for Solutions

- Members discuss initial ideas for new solutions
- Those universities already considering/undergoing changes volunteer to pilot solutions and report back to the group

Case in Brief: The Big Ten Academic Alliance
(Formerly Committee on Institutional Cooperation)

- 14 research universities (13 public, 1 private)
- 13 universities are members of the AAU (1 non-member was formerly an AAU member)
- Chief Research Officers meet regularly to discuss challenges facing the research enterprise, including compliance topics
- Given the high risk and cost of complying with new federal rules, member institutions create pilot programs or jointly consult outside sources to align regulatory approaches

Source: Big 10 Academic Alliance website; EAB interviews and analysis.

Open Questions on Research Compliance

Three Trends To Watch Across the Next Year (or Three)

1

Alliances and Advocacy

Legal Coalitions

Is system-level (or outsourced) legal compliance the way to reduce burden, costs, and culpability?

A March to Reduce Regulation?

With expanding scopes and various challenges, what can we expect from our regulatory partners in Washington DC?

- **Where can we prioritize higher-level legal oversight?**
- **How can we get the most from our advocacy partnerships?**

2

Full-Process Software Tools

Gold Standard Compliance Modules

As vendors evolve (and emerge) to capture regulatory processes, which actually work best?

System Integration

As we seek out the best vendors, how well will they integrate with existing ERAs and financial reporting systems?

- **What vendors are capturing market share, and how satisfied are their users?**
- **Should we expect a single vendor or one for each process?**

3

Red Tape Cutter-in-Chief?

Taking the White House Literally

How much faith can we put into campaign promises of dramatic regulatory reduction?

Rolling Back Enforcement

Should we expect this administration to exercise leniency in the enforcement of rules, rather than aggressively remove rules from the books?

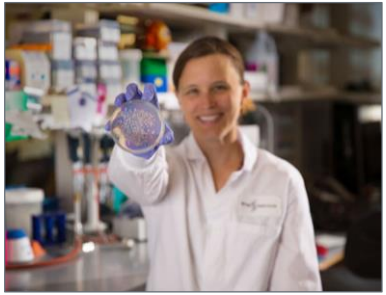
- **What rules are on the chopping block?**
- **What potential new rules may stem from non-research related policy priorities?**

Source: EAB interviews and analysis.

The Faces of Research

And Why We Must Remove Administrative Barriers

HARVARD gazette



Laura Certain, MD, PhD
Instructor, Massachusetts General Hospital
Clinical Fellow, Wyss Institute, Harvard Medical School

"Assumptions of how antibiotics work may be incorrect: Bacteria with synthetic genetic 'switches' show antibiotics work differently than thought" *Harvard Gazette. 2017.*

"Using Engineered Bacteria to Characterize Infection Dynamics and Antibiotic Effects In Vivo" *Cell Host Microbe*. 2017

MIT CAMPAIGN FOR A BETTER WORLD

Sara Seager, PhD
Professor of Physics and Planetary Science, MIT

"The Woman Who Might Find Us Another Earth"
- New York Times (2016)

National Academy of Sciences Member (2015)

MacArthur Fellow (2013)

Time Magazine: 25 Most Influential in Space (2012)

Sources: MIT, "The Indiana Jones of Astrophysics,"; "Assumptions of how antibiotics work may be incorrect," *Harvard Gazette.*

Making the Most of Your Membership

Research Administration Services and Resources

Services

Facilitated Onsite Presentations

Our experts visit campuses to lead sessions highlighting key insights for senior leaders and helping internal teams select the most relevant practices and next steps

Research Strategic Plan Review

Receive a personalized evaluation of your strategic plan along with feedback and recommendations

Schedule an Expert Phone Consultation

Let us be your thought partner in strategizing about your research administration approach

Ask EAB

Send us your institution-specific questions. Our team will provide you with relevant practices, resources, and next steps

Resources

Electronic Research Administration Systems: An Overview of the ERA Market and Vendor Evaluation Process

Consult this updated whitepaper to navigate the decision process when you're in the market for a new Electronic Research Administrations (ERA)

Roles and Responsibility Matrix Library and Template (excel)

Use this tool to carefully delineate research administration duties. It includes two components: 1) a matrix library and 2) a matrix template

Compendium of Research Administration Metrics

Select research activity and productivity metrics to collect and analyze that align with the research office's strategic initiatives

Peer-to-Peer Compliance Consultations

Discuss compliance challenge areas with experts from across the membership; we handle the logistics

Compliance Policy Warehouse (Coming soon)

Consult archived regulatory policies from peer institutions to help craft new rules or change old rules

Source: EAB interviews and analysis.