2022 Administrative Committee on Research (ACOR) Fellows Report

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ACOR Fellows' Unit Representation

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Offices Visited

Office of Research Information Systems
Office of Technology Management
Applied Research Laboratory
Office of Sponsored Programs
Office of Research Protections
College of Health and Human Development
College of Liberal Arts
Office of Research Accounting
Office of Research Affairs, College of Medicine

Executive Summary

The 2022 ACOR Fellows are a well-rounded group in terms of research administration expertise and diverse Penn State research experiences. We were also uniquely positioned far enough into the global pandemic to have identified some lessons learned, but also far enough into the

Great Resignation to understand that the way we do business has to be adaptive. As such, we quickly take a systematic approach to identifying the information we were hoping to gain and a collaborative attitude towards identifying opportunities for the University. In our key findings, we strive to identify creative and data-informed ideas for how to continue growing the research enterprise in line with Penn State's already well-defined strategic goals and values.

After reviewing the University's Strategic Plan[1] and the recommendations of past ACOR Fellows[2], **we recommend a cultural shift to refocus research administration around three core themes:**

1. **Advancing Science**
2. **Managing Change**
3. **Capacity Building**

The areas of improvement indicated were not unique to any one unit within Penn State, nor are they inconsistent with struggles identified by academic institutions across the country, but the opportunity to address them innovatively and collaboratively will require an openness to change, and the collective efforts of interdisciplinary teams such as the ACOR Fellows. Our recommendations are centered around providing an already motivated and hard-working workforce with the capacity to be truly excellent. To this end, **the below list captures our strongest recommendation points.** There are likely numerous quick wins within each of these high level categories, and future groups of ACOR fellows may want to choose one or two of these themes to focus their visits around. These points are detailed in the Key Recommendations section of this report and are informed by our key findings, previous ACOR Fellows reports, and national challenges faced by research universities.

1. Visualize the research project lifecycle to identify departmental overlap and system touchpoints.
2. Repurpose the unit overview content presented to the Fellows for use in an on-boarding and training program so that the ACOR Fellows Program can focus on higher level change management and process improvement initiatives.
3. Develop a strategic center of excellence/coordinating center within OSVPR for capacity building, coordination, change implementation, project management, and education
4. Charge a working group for the planning and implementation of a single proposal intake request system.
5. Adopt a project management/workflow management/task management system within research administration.
6. Provide advocacy for research administrators and project managers with human resources regarding commensurate compensation required for the changing competencies necessary for successful research administration and management.
7. Invest in the research administration and management professional workforce for the successful running of research projects and programs and reduction of faculty burden.
8. Develop, share, and apply Career Arcs/Career Progression pathways for research administrative professionals, also including project managers.

Dedicating staff to education, communication, and change management, from a systems and documentation perspective, allows specialized research administration staff to move projects through workflow processes while ensuring that the quality of training and information is not sacrificed. Fully resourcing individual units with staff dedicated to adapting to increasingly complex research also allows leaders increased availability for inter-department collaborations that more clearly define decision owners and decrease scope creep and duplication of efforts.

We were surprised to realize how little we knew about each other's departments and the volume of work being processed by each group, and as such identified a need for a clear understanding of the touch points and resources between research administration units. The following report identifies common themes and maps local findings and recommendations to national trends observed by American research institutions. We recommend that the report be posted in its entirety in hopes that its content may be useful for any department assessing their role in the larger research enterprise. Furthermore, we suggest that a member (or members) of this group of fellows be available to next year's cohort to facilitate continuous understanding and implementation of the recommendations herein.

Introduction & Background

The modern day American research university is not immune to rapid technological advancements and increased accessibility to large datasets that are used for research. We can continue to expect that the change that research universities have faced in the past two decades will only continue to accelerate. In fact, a report published in 2012 by The Research Universities Futures Consortium[3] demonstrates that change is inevitable and research universities have an opportunity to explore how they remain flexible and integrate necessary changes into existing operational infrastructures to remain competitive.

In our discussions, we identified the underlying themes of change management and capacity building as foundational needs required for the advancement of Penn State's commitment to research and scientific pursuits. Using this lens as a starting point, we leveraged the framework developed by the Research Universities Futures Consortium to demonstrate the continued relevance of key challenges facing research institutions and the need to consider change adoption and integration into existing infrastructures at Penn State.

Report Foundational Themes

Advancing Science

As the ACOR Fellows visited the various units on our research administration tour, the University's values of teamwork and excellence were well represented. The commitment to supporting each other and being experts in the subject matter being discussed was consistent across the groups visited, and the benefits of the ACOR fellows program was apparent. While this year's group of fellows asked questions both big and small, our discussions continuously

returned to the steps these various stakeholders could take to advance science and the steps we, as administrative units within the University, can take to refocus on that core theme. Penn State's strategic plan uses the word "research" 62 times, the University's vision starts by stating "Penn State will be a leader in research…", and high level planning often focuses on how we can continue to expand beyond our current one billion dollar research enterprise. It is easy to lose sight of the fact that a one billion dollar research enterprise is contributing meaningful, and ever-changing, scientific solutions and societal and economic value to the world when individuals are focused on the minutiae of managing systems, processing funds, and conducting compliance reviews, but ultimately it is why we all do the work. Because the goal of science is to continue to ask questions in an effort to understand the changing world around us, Penn State needs a research administration workforce that is prepared to adapt and improve alongside the huge breadth of expertise our faculty hold across the commonwealth. Penn State's commitment to being a leader in research, and therefore advancing science, must be at the foundation of any meaningful change for this group.

Managing Change

While a commitment to science should be the foundation of our research administration processes, change in those processes should be considered a constant. The strategic plan also emphasizes that "the University is committed to empowering resilience as a unifying concept" and "reinforce[s] a concept of organizational excellence." In order to maintain our current level of research expenditures, and continue to grow beyond the one billion dollar mark, our administrators need to have the ability to be nimble as regulations, institutional requirements, federal reporting, and the complexity of research protocols expand.. The departments that we visited demonstrated competence in their areas of expertise; however, managing change, and educating internally and externally about that change, often falls into the category of "other duties as assigned" rather than a prioritized component of the research program. As is common across the University, and the country, many groups are operating at a staffing deficit right now. We encourage those currently hiring to use this time as an opportunity to assess their needs and think creatively about the positions they need filled, which is admittedly hard when a team is understaffed and therefore short on brainstorming time. Hiring new staff, or redefining the roles of existing staff, with a focus on assessing opportunities for flexibility and focusing on problem solving as a job function is essential. Capability to support teammates during time off and/or position vacancies should be the expectation rather than the exception. Recent reorganization in the Office for Research Protection has begun to demonstrate where hiring not only more staff, but the right staff, can make real differences for our researchers, and similar shifts in other areas are starting to take hold. In addition to expanding our research administration staff to be able to simply process the increased work that comes with additional research, we must invest in individuals who are specifically tasked to educate on the requirements, manage the inevitable and ongoing changes, and facilitate efficient processes by building better communication and understanding both within and between units.

Capacity Building

As the ACOR fellows looked for themes across the units, the issue we identified was not a lack of willingness to contribute, an unawareness of the ever changing research atmosphere, or the absence of the expertise needed to achieve the university's goals. The common issue we identified is the capacity to actually do those things. Over the last several years the environment that many groups are working in has changed due to the impacts of the larger number and interdisciplinary nature of proposals being processed, a new financial system, and workforce changes as the result of the pandemic. The need for more capacity seems to be a major overarching theme for many groups and has presented itself in a variety of ways:

- Proposal workflow perspective:
    - Many groups are in a position where they feel like they are just trying to keep their heads above water with day-to-day work.
    - Existing capacity is taken up by last-minute proposals, which cannot be prevented.
    - The variety of sponsor proposal requirements and workflows often require specialized staff to process.
- Staffing perspective:
    - Staff turnover often leaves groups with gaps in knowledge.
    - Without clear process mapping, it is often difficult to close these gaps because it's unclear what relationships need to be maintained and/or developed.
    - Recovery by re-staffing of positions takes time due to the hiring process and long training periods.
    - As research expenditures grow, staffing levels need to grow in conjunction with the increased work and beyond the backfilling of vacancies.
- Change/Communication perspective:
    - A theme seen with many of the departments was that they had a limited capacity to take in and adapt to change while maintaining expected timelines and deadline-driven work.
    - There are a variety of sources of change beyond the institution, such as requirements from sponsors and government agencies.
    - A wealth of information is communicated to units to perform their work via email and listserv and it is difficult to integrate all of the changes and keep track of where they have been communicated.

Some groups have been successful in developing new efficiencies to build more capacity into their daily workflows by:

- Developing strong/healthy team environments.
- Establishing good relationships with other units to share knowledge and experiences.
- Cross-training staff to be able to back each other up.
- Developing their own proposal intake and tracking systems to fill in the gaps of central systems

- Successfully implementing internal hard deadlines for proposal submission that match units' normal capacity.

Without a strategic focus on developing more capacity within units overall, they will at best continue to just be keeping their heads above water.

Key Findings

We had few comments and no serious concerns about any one specific unit. Our assessment was that every unit is working at the top of their current capacity; however, they feel they are falling short in meeting demand, and are often unable to address critical work that is often left as "extra" or "when we have time" work such as training, strategic planning, and reporting. We assessed that there is a need for not only increased staffing but also reorganization and creative thinking around the research administration system as a whole and how work gets done. Particularly thinking through how do the research administration units operate as a whole, who threads the needle between all units regarding the overall process of research administration, and how do we leverage project managers on researcher teams to move research projects forward. With increasing technological advancements, highly collaborative science, and complex federal reporting and compliance requirements we need to take a pause to think strategically about how things need to be different to advance Penn State's scientific portfolio to $2 billion. The below list of discrete findings provides insights into the current functioning of research administration today.

1. A common theme we heard was "to adequately administer a 1 billion dollar research enterprise we need the resources."
2. Most units self-identified that they are struggling with capacity and resource issues. This was additionally evidenced by the number of currently vacant positions within each unit.
3. There is still much pain and frustration regarding the SIMBA implementation. Despite this, staff keep their spirits up. The alternative is they leave.
4. Units continue to adapt their financial workflows to our new financial system and previous recommendations made by ACOR Fellows should continue, particularly recommendations 29,30,31, and 32 within the Appendix A table. Robust Training should be considered as training that understands research workflows (grants and contracts administration).
5. Most units had thought through and planned for areas such as career progression of staff, succession planning, and on-boarding training, although they mentioned that they lacked sufficient resources to create and/or update this documentation.
6. There were several comments about websites and the need to provide information more clearly to researchers and their project teams.
7. Researchers don't know what they don't know, which was exemplified by one comment that "researchers should be aware" about a specific process when asked about how information is communicated. This seemed to be in place of a communication strategy to relay information to researchers in a systematic way. While there are some centralized listservs, it is difficult to identify ways to reach specific target audiences.

8. Many units are managing more work than we initially thought. This work is not only large in volume but is time consuming, technical, and complex in nature.

9. The interdisciplinary nature of research administration work requires immense coordination and collaboration across units. Significant time costs exist due in part to the limit to access of information within a specific unit where research often occurs across multiple units. People do not have the information they need to accomplish their work.

10. There are overlapping systems developed by individual units that could be consolidated and streamlined. An example is the proposal intake request form. Multiple versions of this form exist in various systems in different units. When asked, multiple units thought consolidating these systems would make sense.

11. Many workarounds are being used to supplement gaps in information systems. These workarounds often include manual tracking in static excel sheets, email, and informal meetings. This "invisible" work is generating value, but is difficult to detect as it is not captured in any one system.

12. High-value Work is occurring through informal networks outside of hierarchical structures. There may not be a clear perspective of how work actually gets done.

13. Double data entry is happening. Several units expressed exasperation around the need for double data entry which is overly time consuming.

14. Almost all units were receptive to the use of a project management / task management/ workflow management tool for managing their work.

15. Knowledge transfer is a key concern for many of the units. This is a risk especially when there are deep knowledge holders. It was unclear to us overall how knowledge is transferred and maintained within and between each of the units.

16. Remote work and/or hybrid work has been appreciated by the staff and is working well. Overall the units mentioned that the transition to remote work was more or less smooth and that having a flexible work environment has been beneficial. For researcher-facing/customer service oriented units: they mentioned that faculty prefer meeting remotely as it is easier to walk through forms or documents via a shared screen while using Zoom or Teams.

17. ACOR Fellows Program Specific Findings
    a. It was mentioned at least by two offices that we were the first cohort group to ask standardized questions (see Appendix B) to each presentation group. Some groups mentioned that having a list of standard questions helped to inform their presentation to us and provided them some focus.
    b. Similar Recommendations have been made by more than one ACOR Fellows Cohort. It was unclear to us how decisions are made about whether or not a recommendation will be implemented, how to determine if a recommendation has been implemented, and who is responsible/accountable to track recommendations / change requests. For example the recommendation of implementing a "Research Award Management System" has been suggested by three previous cohorts.
    c. The office overview information presented by each unit would be useful to the overall Research Administrator and Research Project Manager workforce, especially during on-boarding. The fundamental information about what each

research administration unit does, cares about, and their role in the system as a whole is critical for success in one's role when their job is to move research forward.

Key Recommendations

After identifying both the foundational themes and our key findings, our recommendations fell into two categories. Systematic approaches that the ACOR Fellows program can take to contribute to the change management needs identified, and overarching recommendations for research administration as a whole.

ACOR Fellows Program Recommendations

Participation in the Fellows' program has proven to be beneficial for those that have passed through the program. With the aim of identifying opportunities for expanded impact of the Fellows' program, we considered changes that could be made to the program. These recommendations are listed in Appendix A - Table of ACOR Fellows Recommendations. We describe these recommendations at a high-level below. Overall, we believe the following recommendations would add additional value to the program.

We believe there is value in having access to information from previously developed reports. This information can be used to inform areas that may be of strategic priority and of use for the ACOR Fellows to focus on during the program to aid the ACOR Executive Committee in strategic decision making and planning. With this goal in mind, we highlight two key recommendations for the ACOR Fellows Program:

1. Consider what the overall utility of the ACOR Fellows Program could be. What information would the Fellows need to serve strategic utility? This can inform the overall program and the format that provides the most value to the University. For example, if content developed for the program was repurposed for on-boarding training for new research professionals (Research Administrators, Project Managers, Research Technologists, etc.) would we be able to expand our impact and address key knowledge gaps and better support faculty researchers?
2. Consider developing or communicating the change adoption process within Research Administration. Who do requests for change go to? How are decisions made about those change requests and how are they prioritized? Having access to this information will increase awareness of work that is planned or in progress, and how it interconnects and aligns with various units and groups.

Research Administration Recommendations

In addition to identifying foundational themes across this year's ACOR Fellows visits, we assessed past Fellows' recommendations to identify new areas for consideration while keeping

track of ongoing efforts and ideas from previous groups. Through our analysis of prior reports we generated a table of all prior recommendations (Appendix A), and also added the recommendations from our cohort. Six categories emerged through this process:

1. ACOR Fellows Program
2. Research Administration Information Systems and Data
3. Financial Workflow Optimization
4. Research Administration Staffing
5. Research Administration Training and Workforce Development
6. Cross-Unit Coordination and Collaboration

To demonstrate the strategic value of our recommendations for maintaining the health and well-being of the research enterprise at Penn State, we mapped our internal categories to the six Core Challenges (listed below) that American research universities face, as outlined by The Research Universities Futures Consortium in their 2012 report "The Current Health and Future Well-Being of the American Research University."[3] This mapping can be found in Table 1.

National Research Administration Core Challenges
1. Hyper-competition and Complexity
2. Compliance and Indirect Cost Recovery
3. Research Quality and Impact
4. Planning and Decision Support
5. Translating the Value of the Research University
6. Fragility of Research Administration and Leadership

Table 1. National Research Administration Challenges and ACOR Fellows Recommendations Mapping	
Futures Consortium Core Challenges	**ACOR Fellows Themes Mapping**
Hyper-competition and complexity	Cross-Unit Coordination and Collaboration
Compliance and Indirect Cost Recovery	Research Information Systems and Data, Financial Workflow Optimization
Research Quality and Impact	Research Information Systems and Data, Financial Workflow Optimization
Planning and Decision Support	Research Information Systems and Data, ACOR Fellows Program, Cross-Unit Coordination and Collaboration, Financial Workflow Optimization
Translating the Value of the Research University	Research Information Systems and Data

Fragility of Research Administration and Leadership	Research Administration Workforce Training and Development, Research Administration Staffing, Cross-Unit Coordination and Collaboration , ACOR Fellows Program

Mapping ACOR Fellows Themes to the Futures Consortium Core Challenges highlights the common thread that information systems, data, and cross-unit coordination and collaboration are critical areas of focus. Building capacity for change to advance science cannot be accomplished if we are working individually, nor without trustworthy data. For effective research administration it is imperative that we collaborate to move our research mission forward.

Challenge: Hyper-Competition and Complexity

This theme is best defined as scarcity of resources and increased competition. This includes competition institution by institution, research vs. teaching and learning, and unit vs unit. We recommend that units within research and across the university collaborate to accomplish goals. This includes the standardization of key processes and procedures that are common across units. Throughout the ACOR Fellows program we observed that each office was a content expert in their respective area, however, what was lacking is a single unit or group that understood the entire Research Enterprise as a whole at an operational level.

Recommendation Categories

Cross-Unit Coordination and Collaboration

Recommended Actions

1. Develop a strategic center of excellence/coordinating center within OSVPR for capacity building, coordination, data analytics, reporting, change implementation, and project management. This unit would complement existing units and would amplify the expertise and value that existing units bring to the University. This unit would coordinate with university strategic planning committees. This group's work would be in alignment with university strategic objectives outlined in the University strategic plan.
(Combining/including previous recommendation #26, #48, #49)

Anticipated Outcomes
1. a) The development of a center that would provide capacity for existing talent to focus on their content expertise (e.g., accounting, negotiation, contract review, research protections, information security, etc.) while the coordinating center is focused on change adoption and implementation, project management, analytics, reporting, and workforce development and training across UP, COM, ARL, and the Commonwealth campuses
b) Increased capacity for coordination, collaboration, and communication about research and to researchers and their project teams.
c) Reduced administrator and faculty burden

Challenge: Compliance and Indirect Cost Recovery

This challenge area is best summarized as the cost of doing research. The work of research is not fully recoverable from sponsors. At the same time, reporting, accountability, and compliance requirements have increased. With these increasing requirements we need to understand where efficiencies with positive impacts can be made.

Recommendation Categories

Research Information Systems and Data, Financial Workflow Optimization

Recommended Actions
1. Charge a committee or task force with the planning and implementation of a single research proposal intake system
2. Build capacity for frequently changing policies. This could be the strategic unit mentioned in recommendation 1 under the "Hyper-Competition and Complexity" Challenge. This unit would be charged with assessing change, analyzing change integration within units, and ensuring change adoption success (are people accepting the change and is it working?).
3. Adopt a project management / workflow / task management tool for use within research and integration with other research information systems (e.g., SIMS, CATS)

Anticipated Outcomes
1. Identification of multiple project teams that are approaching the same solicitation to increase interdisciplinary collaboration and reduce redundant work by grants and contracts professionals
2. Increased capacity for change integration and adoption. Reduced faculty and administrator burden. Reduced risk and time costs related to outdated information and systems. Increased efficiency in system updates and integration.
3. Increased efficiency in managing work post-award. Links inputs from pre-award to post-award implementation. Enhanced operational workflow reporting capability (what is the status of this negotiation?). Increased transparency and communication between research administration, research project managers, and researchers. Reduction of risk and increases in accurate spending.

Challenge: Research Quality and Impact

The current national federal research incentivization structure prioritizes quantity vs. quality. In other words, research performance is measured by size (dollar amount) rather than productivity, quality, or impact[3]. As such, there has been a lack of prioritization of broadly shared standards and definitions related to research information management, tracking, and performance outside of expenditures. This creates challenges in establishing meaningful research performance metrics within and between institutions. There is growing support for a realignment of the

rewards systems of research,[4,5] however challenges with measuring the success of research and reporting research outputs continue to exist.

Recommendation Categories

Research Information Systems and Data, Financial Workflow Optimization

Recommended Actions
1. Convene a Research Computing and Cyberinfrastructure (RCCI) working group around research metrics and how success in research is measured.
2. Map the existing data ecosystem for reporting on research including where the data exist, how to get access, and pain points.
3. Continue implementing previous recommendations related to SIMBA

Anticipated Outcomes
1. A report from key faculty stakeholders about new and expanded ways of thinking about how to measure research's impacts and the value of research universities. This information can inform strategic decision making about what data we collect to communicate about the value of research.
2. Information for strategic decision making and consideration of stop-gap systems to put into place to relieve the time costs associated with generating reports that exist across multiple information systems with various data owners.

Challenge: Planning and Decision Support

There is a growing need to gather and analyze the information (data) about research. Research information systems have not evolved to meet this demand. Research performance data has historically not been prioritized due to concerns of validity and how it will be used to inform resource allocation decisions. We recognize the need for better information about research for strategic, performance, and operational excellence. We provide the following recommendations to address these challenges.

Recommendation Categories

Research Information Systems and Data, ACOR Fellows Program, Cross-Unit Coordination and Collaboration, Financial Workflow Optimization

Recommended Action
1. Increase visibility of Unit Strategic Plans and their alignment with the overall University Strategic Plan
2. Develop a comprehensive strategy for research administration data. This strategic document should describe the current data ecosystem, what gaps exist, and what is needed to meet the demands of an evolving research administration and reporting and compliance landscape.
3. Build capacity with regards to data analytics and reporting (e.g., within each research administration unit, or a core unit within OSVPR dedicated to reporting. Examples of

similar units at Penn State are Student Affairs Research and Assessment and the Office of Assessment Planning and Institutional Research).

Anticipated Outcomes
1. Employees who know how their work aligns with, and contributes to company objectives, are 2x as motivated, however only 26% of employees have this clarity.[6] Access to unit strategic plans will aid employees in aligning their work to overall objectives and key priorities. This in-turn will result in increased efficiencies, reduced confusion, and enhanced collaboration
2. Contextualizes information sources and availability. Provides clarity of what data we do and do not have and challenges associated with data access and report generation. This in turn will aid in strategic decision making about information systems and reporting capabilities.
3. Increased analytic and reporting capabilities, more efficient reporting, increased utilization of expertise in domain specific areas, increased trustworthiness of reports, increased efficiency across units.

Challenge: Translating the Value of the Research University

A successful research enterprise requires appreciation of the scientific process from all administrative units within an institution. At current there is lack of insight into the difficulties, cost, and complexities involved with research administration. The nature of research is complex and dynamic.[7] To sustain, never mind grow our research enterprise, we need at a minimum buy-in and general appreciation of the scientific process from all administrative units (Human Resources, Procurement, Information Security, Enterprise IT, etc.). Additionally, we need to articulate the value scientific research generates including societal and economic impacts and advancements in innovation and technology. To do so, reliable and valid information is required.

Recommendation Categories

Research Information Systems and Data

Recommended Actions
1. Visualize the research project lifecycle and various system touchpoints through the perspective of research project teams
2. Build capacity for data-informed decision making, analytic reporting, and science communication. This includes systems and people.

Anticipated Outcomes
1. Increased awareness of how each administrative unit interacts with research projects and relevant system inputs and outputs to inform information collection for reporting purposes
2. Increased translation of the value of research universities. Time efficiencies in gathering information required for reports generation. Reduced frustration. Increased staff retention.

Challenge: Fragility of Research Administration and Leadership

The complexity and challenges associated with research administration are not well understood by those outside of the research community. For reliable, efficient, and effective research administration and conduct of research, the staffing requirements and requisite competencies need to be understood by University stakeholders and leadership. Accordingly, the professionalization of research administration and research project staff is of critical importance as we see research professional staff leaving academia for industry and fail to excite future generations of scholars to work within the higher education research community.

Recommendation Categories

Research Administration Workforce Training and Development, Research Administration Staffing, Cross-Unit Coordination and Collaboration, ACOR Fellows Program

Recommended Actions
1. Reorganize/Repurpose the ACOR Fellows program with two arms:
    a. Presentation content can be repurposed for virtual on-boarding and training for any employee working within the research enterprise (what each office does, their goals, and their mission, when to reach out). Provide this information in digital formats that are updated regularly.
    b. Evaluative function including review of prior recommendations and current challenges that are then escalated to the center of excellence for prioritization and implementation.
2. Identify and/or obtain resources to develop and maintain centralized and high-quality documentation about key services and resources within the research enterprise (e.g., Research Administrator Directory, standard practices of a proposal and award generalist, etc.). Content should be accessible, dynamic, easy to locate (searchable on the internet), and written from multiple user perspectives (e.g., proposal and award generalist, director of grants and contracts, research project managers, information technology professionals, researchers)
3. Advocacy to human resources regarding the complex and technical nature of research administration and research project management as compared to other similar roles that do not support research.
4. Develop, share, and enforce Career Arcs / Career Progression pathways and make this information publicly available in an accessible and easy to find location (e.g., SharePoint)

Anticipated Outcomes
1. Reduced time in on-boarding, greater awareness of resources and contacts, increased understanding of the goals and mission of each unit within research administration, increased effectiveness in direct support to faculty and reduced time in identifying key resources to accomplish necessary work. Identified bidirectional communication pathway for workforce needs and challenges.

2. Increased awareness of resources and services that are available. Shared workflows and interdependent work. Reduced administrator and faculty burden.
3. Increased awareness of the complex and dynamic nature of scientific research for job profiles consistent with the current demands of and competencies required to successfully administer and manage research.
4. Increased clarity on career trajectories and skills/characteristics required for progression. This in turn will result in enhanced employee recruitment and retention.

Conclusion

We acknowledge that the concepts offered in this report are big - cultural shifts, increased workforce, and assessment of whole systems and workflows; however, we strongly recommend each unit accurately assess their capacity to fully meet the requirements of their charge within research administration. This assessment should not be focused on whether they can get the work done through long employee hours and system workarounds, but rather, it should be based on reasonable expectations of staffing fluctuations, workflow overlaps and touch points between units, reduction of both researcher and research administration burden, and maximizing flexibility wherever possible. While developing a center for excellence may be a long-term plan, short-term goals may be focused on roadmapping how researchers learn the processes associated with conducting research at Penn State and who the key contacts are once they identify their questions. Dedicating staff to condensing, synthesizing and communicating the information provided to the ACOR fellows in digestible, high-level modules that can be regularly maintained could be an excellent example of increasing capacity to manage ongoing change that would certainly contribute to making it easier for researchers to get through the required administrative and compliance processes efficiently so that they can get down to the business of advancing science, and in turn expanding Penn State's research enterprise.

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Appendix A - Table of ACOR Fellows Program Cohort Recommendations

We analyzed the publicly available ACOR Fellows Executive Reports from 2017 through 2021. The below table represents historical recommendations. We have mapped our recommendations onto these categories to aid in decision making around how recommendations are prioritized for implementation. Red text indicates both new recommendations from the 2022 ACOR Fellows and recommendations previously made by other cohorts that we also support.

ID #	Recommendation	2017	2018	2019	2021	2022	Times Recommended	Implemented
	ACOR Fellows Program							
1	Allow participate remotely (ZOOM)	1			1		2	X
2	Assign a chairperson for the group	1					1	
3	Limit sessions to 3.5 hours	1			1	1	3	
4	Some offices might benefit from scheduling 2 sessions				1		1	
5	Allow 0.5 hour discussion after visits	1	1		1	1	4	
6	Snow day/Makeup Day		1				1	
7	Midday session with Lunch and afternoon session		1				1	
8	Provide list of implemented suggestions		1				1	
9	Prevent repetition of visiting the same colleges		1	1			2	

#	Recommendation						Total	
10	Include 1:1 session between unit staff and fellows			1			1	
11	Add new venues to the list of visited offices, like SIMBA Team and SIMBA Task Fore			1	1		2	
12	Each office should take a more instructional approach of the fellows' sessions			1		1	2	
13	Each hosting unit should provide any prepared slide in advance				1		1	
14	Each office should solicit questions in advance from Fellows			1			1	
15	Select units to visit that are not the fellow's home units			1			1	
16	Schedule more time at the fellow's first meeting to facilitate discussion on current job responsibilities and the fellows' hope for their engagement in the program			1			1	
17	Rotate visits among large and smaller college research offices ; select dissimilar units to pair together			1			1	
18	More structure to each visit: have each visit structured the same way			1			1	
19	Utilize the experience and insight of ACOR fellows			1			1	
20	Hosting units should limit their topics that are relevant to Fellows				1		1	

#	Item						Total	
61	Re-consider the overall utility of the ACOR Fellows Program, can the program serve additional strategic value as an on-boarding training? (same as #12)					1	1	
62	Develop and communicate the change adoption process on these change requests. Process to escalate to the center of excellence for prioritization and implementation.					1	1	
63	Presentations re-purposed for virtual on-boarding and training for all RAs and Research Project Staff					1	1	
	Research Administration Information Systems							
21	Research Award Management system	1	1		1	1	4	
22	Develop mutually beneficial RA resources		1				1	
23	IAF status tracking system		1				1	
24	Logging Risk Management into SIMS		1				1	
25	Standardized RA procedures, guidance				1		1	
26	VPR should review and evaluate various individual systems developed by Colleges and Units to identify if any of them could be deployed to the whole university (same as Research Award Management system)				1	1	2	
64	Charge a committee or task force with the planning and implementation of a single research proposal intake system					1	1	

	Financial Workflow Optimization							
27	**More efficient financial system**		1				1	X
28	**Use SIMBA for Subaward Closeout**		1				1	
29	**Reevaluating and restructuring SIMBA resources**				1	1	1	
30	**SIMBA Help Desk**				1	1	1	X
31	**More robust SIMBA training**				1	1	1	
32	**Dedicated support is needed for SIMBA enhancements, and those should be based on the entire University RA needs**				1	1	1	
33	**SIMBA Task Force should identify the need for staffing increase in college level RA offices**				1		1	X
	Research Administration Staffing							
34	**Evaluate staffing and workload inequities**	1	1			1	3	
35	**Benchmarking with other institutions to identify where staff increase would be most valuable**		1				1	
36	**RA Floater position**	1	1	1			3	X
37	**Succession planning to prevent turnover**		1				1	
38	**Complete RA Compensation Modernization Initiative**				1	1	2	

#		C1	C2	C3	C4	C5		
39	**HR processes should be reevaluated and streamlined to fit the rapidly revolving job market**				1		1	
40	**Leverage the success observed during the COVID remote working - and allow flexibility going forward**				1		1	X
65	**Develop, share, and enforce Career Arcs / Career Progression pathways and make this information publicly available in an accessible and easy to find location**					1	1	
	Research Administration Training and Workforce Development							
41	**Quarterly networking event**	1					1	X
42	**Reinstate RAWG**	1					1	X
43	**Educating new faculty about RA processes, procedures, and resources, including Co-PI, project staff**		1		1		2	
44	**Faculty New Hire Checklist**		1				1	
45	**RA advance degree, certificate program (beyond ACES)**		1				1	
46	**Manageable training opportunities for RA, more content specific training, use storytelling training methods, Offer City Training**		1				1	
47	**Low risk subaward processes in the College level**		1				1	

#	Item						Total	
48	**Hire an RA educator – RA training and develop RA educational materials,**			1		1	2	
49	**Start an RA education focus group to identify existing resources, ongoing needs, and educational gaps**			1		1	2	
50	**Standardized on-boarding procedure for RAs and research community**				1		1	
	RA Collaboration							
51	**Add Research Concierge to OSP/SIRO**		1	1			2	
52	**Research Help Desk**		1	1			2	
53	**Research Admin Fair and Open House**		1				1	
54	**Charge an RA task force – find and disseminate best practices**			1	1		2	
55	**Update ACOR listserv,**			1			1	X
56	**Innovative ways of sharing RA practices: internal RA toolbox**			1			1	
57	**Sharing innovative RA practices occurring in other colleges/units, ACOR catalog of frequently used sites**			1	1	1	3	
58	**Standardize RA operating procedures**				1		1	
59	**Encourage more interaction and collaboration with Commonwealth Campuses and College of Medicine**				1		1	

#	Recommendation							
60	Create standard working groups or increase visibility of already existing ones to support specific job roles.				1		1	X
66	Develop a strategic center of excellence/coordinating center within OSVPR for capacity building, coordination, data management, data analytics, data reporting, change implementation, project management, and performance metrics development.					1	1	
67	Visualize the research project lifecycle and various system touchpoints through the perspective of research project teams					1	1	
	Total Recommendations Implemented							**10**

Appendix B - 2022 ACOR Fellows Program Standard Questions

Standardized questions were sent to each presenting office. Standard questions were asked to aid in across group comparison for the development of the 2022 Fellow Report. Overall we found that offices were facing similar challenges, and the primary themes of advancing science, managing change, and capacity building emerged.

1. What are your departmental wins/strengths?
2. What are areas you know you need to improve?
   a. What complaints do you receive? What do you do about them?
   b. What could the University do that would most help you in executing your units mission?
3. How do you prioritize work within your unit?
4. People Power
   a. Is your unit staffed to successfully plan and implement necessary work initiatives?
5. Staff training/development:
   a. How do you onboard new staff? How do you manage knowledge transfer?
   b. How do staff to advance (advancement pipeline) professionally through your area?
   c. Would you be supported by a university initiative towards career pathing/creation of more shared work flows?
6. How has the remote work environment impacted your ability to hire, train, promote, and retain staff?
7. How has remote work impacted your workflow and work processes