Final Report of the Sponsored Programs Task Force for Research Administration and Support Services
September 30, 2024

Background:

Extramural research funding is essential to advance the NC State Vision, which is to be "*increasingly recognized nationally and internationally for its innovation in education, research, scholarship and engagement that solves the world's most critical challenges*." As a preeminent public research university, Principal Investigators (PIs) write proposals for extramural funding that are submitted by and awarded to the university and manage them in collaboration with staff, research administration, students, and others to contribute to this ambitious vision.

To solve the world's most critical challenges, both high quality and quantity of extramurally funded research programs are needed. Moreover, characteristics of extramural funding are one aspect that influences national and international recognition which, in turn, influences other aspects of the vision (e.g. the quality of NC State students, faculty, and staff recruits). In this way, the interrelatedness of excellence of NC State's education, research, scholarship, and engagement missions is clear. To be excellent in one of these areas, we must be excellent in all these areas.

The importance of research is further evidenced in these five of seven goals of the NC State Strategic Plan:

- Goal 2: Ensure preeminence in research, scholarship, innovation and collaboration.
- Goal 3: Expand and advance our engagement with and service to North Carolina and beyond, defining the standard for a 21st-century land-grant university.
- Goal 5: Improve university effectiveness through transformative technologies, cutting-edge processes and actionable data.
- Goal 6: Lead in developing innovative partnerships, entrepreneurial thinking and applied problem-solving.
- Goal 7: Elevate the national and global reputation and visibility of NC State.

Universities receive extramural funding through gifts, characterized as voluntary donations without reciprocal obligations, or as sponsored programs, characterized by a defined scope of work or obligations to satisfy the sponsor's expectations. In addition to a defined scope of work, sponsored projects have a budget and terms and conditions addressing topics (e.g., intellectual property, publications, reporting). "Sponsored Programs" broadly encompasses the management of such agreements and defines the scope of this Task Force.

Over the past decade, NC State has excelled at enhancing its research activity. While many different measures of quantity and quality of research activity can be evaluated, three important parameters that relate directly to the volume of research activity include the amount ($) of: (1) extramural funding proposed, (2) awarded, and (3) expended. The values of these three parameters are plotted over time in Figure 1. **Over the past ten years, NC State has seen increases of 35% in research expenditures, 68% in sponsored program awards, and 129% in the value of proposals being submitted**. While these are significant increases, it is important to note that the recent accelerated growth in sponsored program awards (from $409M in 2022 to $517M in 2024) and the highest growth in proposals (from $1.5B in 2022 to $2.5B in 2024) foreshadow future near-term increases in awards and expenditures. These future needs should be forecasted and resources allocated to plan for future growth, even beyond satisfying the needs of the present (as elaborated in Issue #2 below).

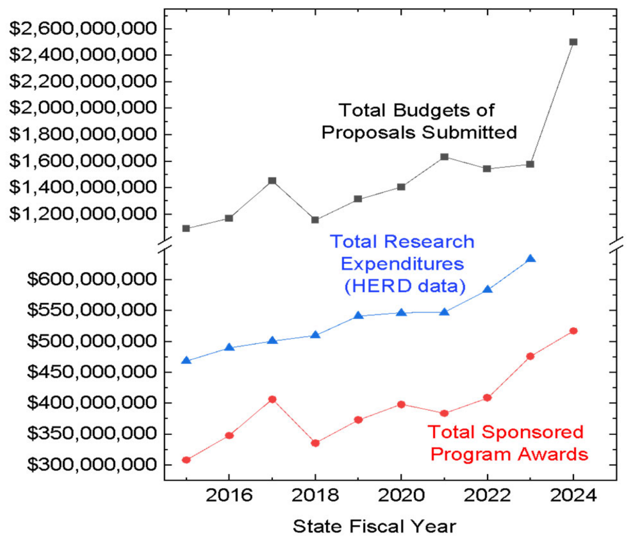

Figure 1. Total budgets of proposals submitted, sponsored program awards, and overall university research expenditures by state fiscal year. For research expenditures, HERD Survey data is provided, which includes data beyond ledger 5 accounts. The large increase in proposals in state FY24 is dominantly attributed to growth in the College of Engineering.

The efficient and effective management of sponsored programs is essential to the individual projects' success and to advance the overall NC State mission and vision. Structures for sponsored program management at research institutions are broadly classified along a spectrum between centralized and decentralized. In a purely centralized structure, all administrators and offices responsible for managing the lifecycle of a sponsored program would be organized under a single, central Sponsored Programs Office (SPO) including activities such as proposal development and submission, award negotiation and acceptance, monitoring and reconciliation, invoicing sponsors, and close-out. Some advantages of centralization include clear assignment of authority and responsibility, consistent managerial control, and overall consistency in processes. Examples of universities operating a predominantly centralized structure include Purdue, Virginia Tech, UT-Knoxville, and Howard University. In contrast, decentralized sponsored program management structures delegate responsibility for certain tasks to other units not directly controlled by a central SPO (e.g., colleges, departments). Examples of universities operating decentralized structures (to various extents) include Penn State, Harvard, Cornell, and Georgia Tech.

The NC State sponsored programs management structure is highly decentralized with sponsored programs management responsibilities distributed across the Office of Research and Innovation (ORI), Office of Finance and Administration (OFA), and College Research Offices (CROs). In some colleges, certain responsibilities are further delegated to academic departments, creating additional decentralization complexity. For example, the College of Engineering (COE) and College of Agriculture and Life Sciences (CALS) further delegate certain pre- and post-award responsibilities to individual departmental research administrators, whereas the College of Science (COS) and College of Education (CED) retain research administration tasks at the College level.

At NC State, sponsored programs management responsibilities are decentralized at the university-wide level and further decentralized within some colleges. At the university level, within OFA, the Office of Contracts and Grants (C&G) is responsible for post-award financial management, while within ORI, the Office of Sponsored Programs and Regulatory Compliance Services (SPARCS) contributes to sponsored programs management, primarily at award-stage but to some extent throughout many other steps of the research lifecycle. SPARCS has two teams that perform complementary activities, Sponsored Programs and Research Compliance, both of which interact continuously with research administrators in departments, colleges, and other university-level offices. We note that, in NC State's decentralized system, SPARCS contributes to sponsored programs management but does not exercise control or authority over the entirety of the pre-award to post-award process.

Some advantages of decentralization include more personalized support for PIs, discipline specialists in staffing, and a better understanding of resource needs and post-award spending. However, some challenges that are elaborated upon later, can include process inefficiencies and potentially competing or unclear responsibilities and inconsistency in the research management process. In a decentralized system, communications and hand-offs across units, which are enabled by multiple systems, must be effective and efficient. Moreover, authority over all aspects of administration needs to be well understood across the institution for it to operate effectively.

In NC State's decentralized system, the typical life cycle of a sponsored program can be visualized as a timeline and is represented graphically in Figure 2. There are multiple stages of an award's life, starting with the PI's intent to submit and ending with project close-out. In Figure

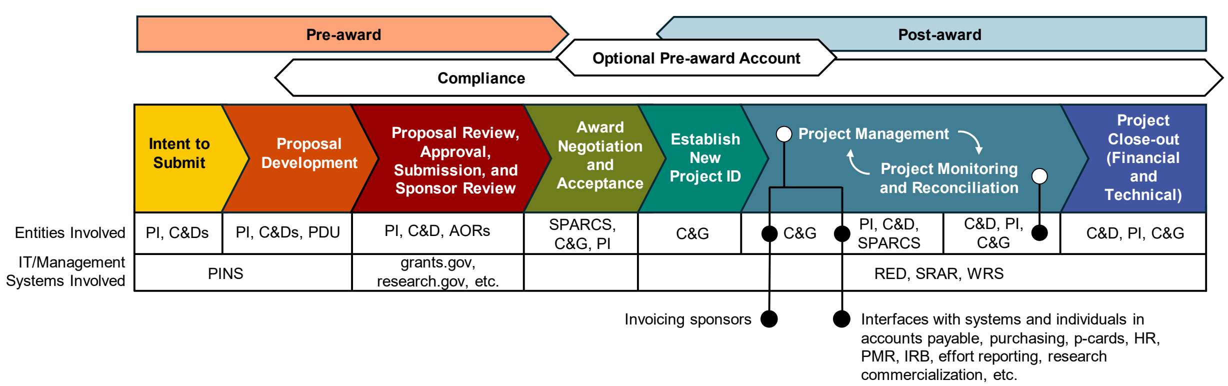

Figure 2. Summary of sponsored project lifecycle at NC State and the Information Technology (IT)/Management systems and entities involved at different stages (AOR, Authorized Organizational Representative; C&D, Colleges and/or Departments, as relevant locally in NC State's decentralized structure; C&G, Contracts and Grants; HR, Human Resources; IRB, Institutional Review Board; PDU, Proposal Development Unit; RED, Research Enterprise Data; SPARCS, Sponsored Programs and Regulatory Compliance Services; SRAR, Sponsored Research Activity Reporting; WRS, Wolfpack Reporting System; PMR, Project Modification Request).

2, the specific offices or individuals that are responsible at each stage are identified. In some stages of the process, there are multiple entities operating collaboratively. For example, Award Negotiation and Acceptance is primarily undertaken by SPARCS, C&G, and the PI, although often many other offices are often needed to contribute (as elaborated in Issue #4 below). As another example, the Project Management step requires even more collaborative entities and extends into the systems examined in the Task Force on Research Implementation. Finally, project reconciliation is an important, regularly recurring process by which Research Administrators and PIs verify the accuracy of financial transactions and expenditures (including whether they are allowable, allocable, consistent, and reasonable) and plan for future spending. Project reconciliation is typically expected at research universities on a monthly or quarterly basis.

Process:

The Task Force on Sponsored Programs met with several experts and groups over a period of approximately two months, to diagnose underlying, systemic issues and inform proposed pilot projects. The Task Force or the Task Force Co-chairs met with: the Research Leadership Academy (RLA), the Research Operations Council (ROC), the University Research Committee (URC), the Research Support Council (RSC) Executive Committee, a smaller group of the RSC Executive Committee that were identified as "Expert Advisors" in the Chancellor's charge letter (Missy Thomas and Pat Hayes), SPARCS (Sherrie Settle, Marissa Clarkson, Kevin Shroeder, Mary Millsaps), the OFA Finance Division (Dana Harris, Justo Torres, Sharon Loosman, and Kimberly Kelley) and Human Resources (Tim Danielson, David Perryman, Margaret Erickson, and Jenny St. Jean), and Internal Audit (Cecile Hinson). As input into the process, the group also used information from the RLA letter to the Chancellor (undated, but in the time period of January 2024), a Report on the State of Research Administration in the College of Engineering dated March 22, 2024, the Research Support Council Executive Committee memo to Alyson Wilson dated May 1, 2024, and feedback from a faculty survey administered by Sandra Yuter and received July 9, 2024. The initiative's website (https://research.ncsu.edu/about/research-task-force/) also directed individuals with input to contact their University Research Committee (URC) or Staff Senate representative, or email rass-feedback@ncsu.edu. Input received through these various groups and channels was from a broad range of perspectives, including from both faculty and staff, and from many different units at NC State. All input received via these channels was considered by the Task Force. The Task Force desired to engage the Faculty Senate, but the timing of the Chancellor's charge, which was over the summer period, did not permit such engagement.

In response to the Chancellor's charge, the Task Force: i) identified the most pressing issues impacting sponsored programs management at NC State, and ii) made actionable recommendations for pilot projects that could be implemented in FY25. **It is emphasized that the proposed pilot projects are not complete solutions to the most pressing issues but are appropriately scoped projects that could be implemented quickly.** This report complements those proposed pilot projects by also identifying five underlying systemic issues that require further consideration by stakeholders and higher-level administration.

FIVE MOST PRESSING ISSUES:

Issue 1. NC State's decentralized structure for sponsored programs management challenges the efficiency and effectiveness of the conduct of research.

In NC State's decentralized management structure for sponsored programs, various functions and responsibilities are distributed across multiple units, as introduced earlier. At NC State, much research administration is typically performed within the colleges and some colleges choose to delegate that responsibility further to departments. While decentralized structures have certain advantages (e.g. more personalized and local service for PIs), they present many challenges, which are associated with shared responsibilities. Shared responsibility leads to inefficiencies and often inaccuracies due to a number of factors (e.g., hand-offs across units, increased communication requirements, required collaboration across units to address issues where responsibility or authority is unclear, and potentially competing, inconsistent, or unclear responsibilities across multiple units).

Signature delegation provides a structural example. For proposal submission and many other official actions in sponsored programs management, signature delegation flows from the Chancellor, through the Vice Chancellor for Research, to the Associate Vice Chancellor (AVCR) for SPARCS per Policy Rule and Regulation (PRR) REG 01.20.02. Further, to enable NC State's decentralized structure to function, by convention, proposal signature authority has been delegated to colleges and certain other units, as described in a Standard Operating Procedure (SOP) that is maintained by SPARCS. Importantly, although authority for certain actions is delegated, the AVCR remains accountable to the sponsor. This structure introduces several issues, including:

- While a PRR and SOP detail some aspects of the delegated authority, they do not cover all actions and decisions required in management, meaning that communications involving multiple parties are often required to determine who has authority, which decreases efficiency.
- Neither the VCR nor AVCR is connected to the delegated signatories in any supervisory or official advisory capacity, limiting the control over their responsibilities and priorities even though accountability to the sponsor remains with the AVCR.
- Delegated responsibility to a college signatory cannot be reassigned to or assumed by the PI, meaning that college policies for late or "rush" proposal submissions cannot (but sometimes do) claim that the PI takes responsibilities for errors when, in truth, accountability for errors remains with the AVCR.
- As a single entry portal is needed for external sponsors to communicate with the university on topics related to sponsored programs, the sps@ncsu.edu becomes a mail carrier for forwarding requests to those who are responsible for various actions, an inefficient process in an email system that is not designed as a ticketing system.

One (of many) practical examples of how decentralization of authority has challenged the conduct of research is the process of onboarding students for Research Experiences for

Undergraduate (REU) programs. For many years, it was frustrating for REU program managers and PIs and their local research offices to complete the onboarding process for REUs because the requirements from various offices were unclear and not integrated. There was competing information and requirements to work across multiple units when bringing in students from other universities to perform research for NC State that, e.g., can generate IP, have safety concerns, involve payment as hourly employees or through stipend payments, and involve on-campus housing. Because there was no clear single individual who was responsible or accountable for execution of this process, it was only solved by someone who had no authority or responsibility for REU taking it upon themselves to pull together the disparate units to outline a clear process for onboarding REU students.[1] The process involves 7 offices: ORI Research Operations, Human Resources, OFA Procurement and Business Services, OFA Accounts Payable, OFA Contracts & Grants, Enrollment Management and Services, and ORI Research Compliance. From a PI and program manager perspective, the outlined process is helpful for understanding responsibilities, though it also demonstrates inefficiencies by necessitating navigation and collaboration with all these various units. From the perspective of delegated authority and decentralization, it is emphasized that there was no clear individual who was responsible or accountable for the REU programs, and the solution required a spontaneous volunteer who was not responsible and grassroots working group that took on additional responsibility and burden.

The REU example is just one of many issues that arise regularly within sponsored programs management that are examples of the challenges presented by decentralization.

Issue 2. Personnel to support research administration has not kept pace with increases in proposals and awards.

The management of sponsored programs is carried out by professional Research Administrators, defined here as staff members who, "*support the development, review, implementation, and management of a sponsored project … [and] engage in all aspects of sponsored programs administration … [that] includes everything from preparing and submitting proposals to award negotiation and acceptance through programmatic and financial compliance*".[2] Examples of Research Administrator titles include Negotiators, Business Officers, Fiscal Managers, Compliance Officers, among others. Research Administrators have their own professional societies and credentialing bodies with a nationally competitive job market.

As introduced in Figure 1, the number of proposal submissions and awards has been steadily increasing over the past decade. The success at proposing and winning sponsored program awards has put an unsustainable amount of pressure on sponsored programs management structures at NC State and Research Administrators themselves, in part because the count of Research Administrators at NC State has not increased commensurately with proposal submissions and awards. While the argument could be made that NC State has been understaffed in Research Administrators for years, such a conclusion would have to be drawn

[1] Logistics info for Undergraduate Research Experience programs, available at https://docs.google.com/document/d/17DNL4jdW_5opD0liwsT6y4hVwlDhSVWobAVD6H6QJgA/edit
[2] Research Administration: The Best Job of All, available at https://streamlyne.com/research-administration-job-titles-responsibilities/

by comparisons with peers and a more thorough understanding of the workload across the contributing units (a recommendation in Pilot Project 2). However, we can make comparisons in the pace of staffing over the past decade relative to proposals, awards, and expenditures. As one example, the count of Research Administrators in the central offices of C&G and Sponsored Programs is shown in Figure 3. Over the past ten years, the number of Research Administrators has grown by 36% in Sponsored Programs and 40% in C&G. These increases have kept pace with research expenditures (35% over the same period) but fall far behind sponsored program awards (68%) and proposals being submitted (129%). Here, we also reiterate that future needs for Research Administrators will accelerate as the large growth in value of proposals submitted (from $1.5B in 2022 to $2.5B in 2024, see Figure 1) lead to anticipated acceleration in awards and expenditures. Thus, the needs of both the present and the future must be considered.

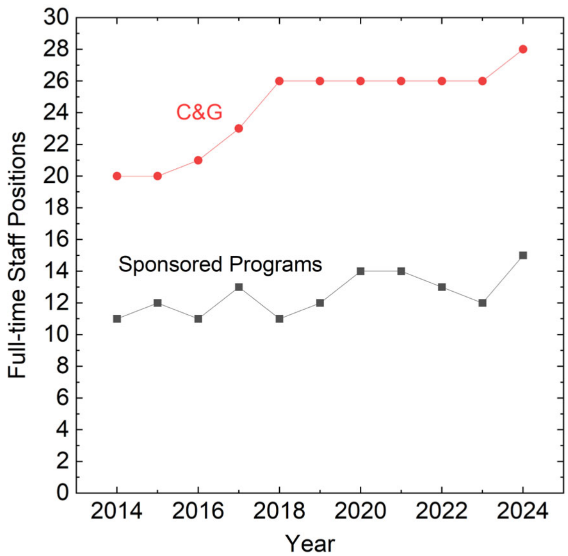

Figure 3. Count of full-time personnel supporting aspects of sponsored programs over the past decade. C&G includes fiscal managers, fiscal assistants, accounts receivable, and compliance. Sponsored Programs includes negotiators and operations team members.

There is also turnover in Research Administration positions that affects efficiency and effectiveness of the system. As one example, at the time the Task Force was charged, the Director of Sponsored Programs had just resigned from the position and, within Sponsored Programs, 2 of 3 negotiator positions were vacant on the industry negotiations team, 1 of 5 vacant on the contract and subaward team, and 1 of 8 vacant on the operations team. In parallel, 6 of the 19 positions in C&G Fiscal Manager Team were vacant. Immediately, turnover results in an increase in workloads of other Research Administrators, which results in a slowing of processing times observed by PIs. Over the longer term, the recruitment and training required to fill the open positions reduces the efficiency and effectiveness of the entire system.

The Colleges experience similar challenges. For example, COS grew its research expenditures by 28% over the past decade, yet only recently increased staffing levels to support the increase in research activity. Since the formation of the COS in 2013, the staffing levels remained relatively stagnant with the few new positions being added including the Director role in 2016, a pre-award position in 2021, and an Assistant Director in 2022. Only in FY24, after turnover in the CRO Director and the Associate Dean for Research, was the overall FTE count for sponsored program support increased in any substantial way with the addition of three post-award positions.

COE operates a decentralized structure, with certain responsibilities further delegated to academic departments. COE reports that the staffing of Research Administrators within the College itself (not including departments) are only now at levels that they should have been 10 years ago. For many years, the COE had a CRO staff of 8 positions, including the Director. Only through the recent Engineering Expansion was COE able to bring the total number of CRO staff up to 14. Staffing to support sponsored programs management was also increased in some academic departments (e.g., Computer Science, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, and Chemical and Biomolecular Engineering). Notably, recurring funding for Engineering Expansion is insufficient to completely sustain the new personnel, so other types of sources need to be identified to support the current sponsored programs management needs as well as the projected growth forecasted from the recent increase in proposals submitted (Figure 1).

Staffing of Research Administrators is supported using both State funding and the Facilities and Administrative (F&A) costs that are returned to the various contributing units. F&A, also known at some institutions as Indirect Costs (IDC), are a necessary part of conducting research and are meant to recover costs that are not directly related to the research project itself (e.g., the infrastructure that supports research, such as lab construction, maintenance, utilities, internet access, and research support services). F&A recovery is awarded by agencies and used by the university to cover common costs incurred during the everyday performance of research projects. It is emphasized that such costs are not readily assignable or allowable to a particular sponsored project and, thus, are not meant to provide funding for costs incurred by the PI to directly support the project.

There is significant background information on the calculation of F&A costs, negotiation of F&A rates with the federal government, and internal allocation of recovered F&A funds that is not discussed in this report. For the purposes of the Task Force on Sponsored Programs, however, we note that the percentage of recovered F&A that is returned to units who support sponsored programs management (e.g., colleges) has been consistently decreasing over many years. For example, over the past decade from FY14 to FY24, while the total F&A generated across the university increased from $47M to $78M (an increase of 66%), the F&A funding returned to colleges/2 digit OUCs (through the "college share") decreased from 27% in FY14 to 20% in FY24 (calculated as a percentage of prior year F&A revenue university total). While the argument could be made that some of the decreases could follow the centralization of services, these decreases counter the increases seen in the growth and needs to support research and, potentially, impedes the success of growing the number of Research Administrators needed to support the research enterprise. The Task Force recognizes that, even though the percentage of return has decreased, the total dollar amounts returned to colleges have been flat, although flat returns do not help to support a growing need for research administration.

The F&A returned to ORI to manage through the Strategic Research Fund (SRF) did increase from $5.7 million in FY14 (or 13.6% of FY13 F&A) to $9 million in FY24 (or 12.6% of FY23 F&A). However, the SRF is intended to support faculty, centers, core facilities, etc. and is not used on an ongoing basis to support permanently allocated Research Administrator salaries. Moreover, the Task Force notes that, even though ORI is the primary office to coordinate and represent research at NC State, there is no longer a representative from ORI in the decision-making process to allocate recovered F&A costs per REG 10.05.06. The lack of ORI representation in these decisions hinders advocacy for supporting certain research-related needs of NC State. These needs include more Research Administrators, but also important needs in other areas (e.g., research cyberinfrastructure and animal facilities and staffing).

Issue 3. Implementations of technology support systems for research administration are in progress and take time to gain efficiency and confidence.

NC State's implementation and deployment of enterprise technology support systems are currently in progress, and while the systems continue to evolve, gaining confidence in the updated workflows and data for users at all levels has not been a quick process. To manage various aspects of sponsored programs, NC State is in the process of moving from several systems it created in-house (e.g., RADAR, PINS) to a new system called RED. Implementing the RED system at the same time NC State has experienced tremendous growth in proposals and awards created challenges for Research Administrators in both the central offices and colleges. A significant challenge in its implementation is the resources needed to implement change. The same personnel that are needed to work on the project implementation are concurrently performing their regular job duties (e.g., administering the research process amid a growing amount of research proposals and awards). And, given the count of Research Administrators has not increased commensurately with proposal submissions and awards, there has been growing pressure on sponsored programs management structures and individual Research Administrators. In addition, lack of standardized, easy to access, and understandable training for users at all levels adds to frustration and a disconnect of interest with users.

Change in any environment is never quick, especially with enterprise applications and the implementation and acceptance of the new RED system is no different. The RED system and reporting capabilities will add efficiencies in the long-term, but there is an adjustment period for PIs and Research Administrators to become proficient with the updated workflows. Finding the best balance of the training, feedback and system adjustment cycles within the decentralized campus environment will help to accelerate the confidence of using the system and reports.

As we look at RED, specifically, while an adjustment period will help, there are specific stakeholders that are expected to do double (or triple) duty to provide the information that drive the system itself, create documentation and training, and continue to do the work that needs to be evaluated for volume and efficiency. Additionally, feedback is not always readily available from diverse groups due to time commitments on projects like implementation of the many modules that make up the RED system. There is a limited and dedicated pool of end users available to provide feedback, which leads to other opportunities for system improvement not becoming evident until after implementation of system updates, which may not be identified or properly reported as an issue, further alienating end users and increasing animosity in the change to the system. Providing ways to incentivise participation in focus groups and attract more diverse stakeholders may benefit feedback which would inform system change with more diverse and unique feedback, which could accelerate positive change. For instance, the addition of a tool that allows Research Administrators to access records by Project ID was added after implementation, based on community feedback, and is considered a positive change.

RED implementation and use is not the only challenging factor. As indicated, working in a decentralized sponsored programs management structure , and with a lack of certain standardization of processes, contributes to confusion when crossing colleges or units. The way an action is handled in one unit may involve a centralized unit office, working with a departmental representative, but working out who those contacts are is not clear, as titles of positions are inconsistent, so the title of one person in a department may not align with the counterpart of someone in a centralized unit, leading to communication slowdowns and inefficiencies as a departmental contact may have to coordinate communication with correct stakeholders to achieve an action that from a PIs perspective should be more clear cut and straight forward. The transfer of funds from one college to another department's funding segment with different levels of support and centralization may require additional stakeholders to provide input that slows down processes, and because each unit is slightly different, it requires 'corporate knowledge' that is lost when positions become vacant.

Issue 4. The complexity of research administration continues to increase within an under-resourced environment.

In parallel to the growth in overall research activity, the lifecycle of sponsored programs is becoming more complex. The decentralized system that is illustrated in Figure 2, which involves multiple offices, is not always able to adapt efficiently or effectively to a growing complexity of awards, e.g., the creation of a center or an interdisciplinary award vs. a simpler Simons travel grant. The requirements of sponsors are also increasing (e.g., additional forms, certifications, and reporting requirements). For example, documentation that is required for NSF proposals and projects now includes data management plans, mentoring plans for postdocs and graduate students, plans for a safe and inclusive work environment, individual development plans for scholars, and responsible and ethical conduct of research training for PIs. These additional requirements add to the administrative burden of proposal writing as well as the review and submission processes required for effectiveness including compliance.

Furthermore, with growing complexity in the requirement for sponsored programs management, there is often a need to involve offices beyond those identified in Figure 2 (e.g., the Office of Equal Opportunity, University Tax Compliance, Office of General Counsel, and the Office of Information Technology) for review and approvals. These other campus partners, whose primary mission is not research administration, may not have the background knowledge required to immediately and fully address the specific issue and, therefore, additional discussion and time is required to complete the task, slowing the processes. Finally, proposals continue to involve more complex regulatory compliance structures, meaning that SPARCS input is required prior to submission by an authorized signatory on, e.g., terms and conditions, document signatures, confirmation of representations and certifications ("reps and certs"), and further coordination with other non-research offices. These tasks require more time to complete, causing consequences such as prolonged proposal submission processes, delayed award establishment, and a growing workload of tasks by Research Administrators.

Even when there are seasoned or trained Research Administrators helping to manage the lifecycle of a sponsored project, there may be unclear technical, financial, or other reporting requirements from a sponsor. And the requirements to meet both financial & programmatic reporting may involve reporting systems where PIs, research administrators, or appropriate individuals need to access the report. There are no "how to" tutorials on campus or a list of individuals who can assist with getting access/approvals for sponsors like USDA NIFA, IPP USDA NRCS, USDA-APHIS, ezFed, etc. Often, there is also uncertainty as to who is responsible for certain reporting requirements and who submits reports (see Issue #1 above), whether it be confusion between individuals (e.g., PI vs. fiscal manager) or between units (e.g., college vs. SPARCS vs. C&G).

The above challenges are further exacerbated in a decentralized management structure as each contributing unit has various internal processes for supporting the lifecycle of an award. For example, each unit will have different processes associated with award establishment and post-award management, e.g. in payroll, graduate student appointments, and the use of interdepartmental transactions (IDTs). When crossing units, these tasks encounter different workflows and processes that delay the posting of transactions. For example, a graduate student may be located in department "A," yet be supported on a grant managed by department "B," and departments A and B operate under different Organizational Unit Codes (OUCs). Tasks to support the student's conduct of research, e.g., travel reimbursements or the purchase of supplies, likely require an IDT to be created after a transaction has been made in department A in order to reimburse department A from the source of funding in department B.

Communication to handle a transaction like the example above takes on various forms based on the unit. For example, CALS uses ServiceNow while some units rely on email. Another example involves redistributing payroll: if a researcher's salary is charged to the wrong sponsored project or funding source (even by keystroke error), it often requires investigative work of a Research Administrator searching organizational charts or sending emails to various stakeholders to identify the individual that has appropriate access to make the salary distribution change (SDC). This type of investigative work requires persistence, multiple communications and follow-up to identify the correct person. Moreover, because the individual is located in a different unit of a decentralized system, they may have competing priorities, limiting the urgency of processing requests and potentially a 90-day requirement, after which additional justifications and offices are further required. From a sponsored program management perspective, relying on such a fragmented system introduces uncertainties, ineffectiveness, and inefficiencies that potentially jeopardize individual sponsored programs and NC State's research enterprise overall. While these examples cross over into the scope of other Task Forces, the Task Force on Sponsored Programs emphasizes that these challenges in the NC State research administration structure require professionals who possess a good understanding of sponsored programs management a high level of professionalism.

Requirements for system training for platforms like RED are inconsistent or non-existent and provide differing levels of expertise and understanding across the research enterprise.

System access is not dependent on training for access to PI tools, or in some instances, Research Administrators, contributing to frustration around available information and reports. While some units incorporate some degree of training for incoming PIs and newly hired faculty, not all units provide this level of training and in some cases, there have been instances where training once existed and has since been discontinued. Assistance in some systems may come from self-trained users that may not be as effective as those who attended university level training. Often time solutions are crowd sourced with trusted on-campus contacts. These issues may not be escalated to those responsible for system enhancements, if they are not part of an established group of testers as described in Issue #3. Even through the course of this Task Force process, members of the Task Force provided feedback and learned from each other in ways that current processes haven't allowed for based on workload, time commitments, and opportunities.

While there are training resources available (e.g., as coordinated by the Director of Education and Training for ORI and C&G), the formats and information may not be as broadly accessible and understandable to those who specialize in either research administration or the conduct of research itself (e.g., graduate students, PIs). The research website currently hosts an extensive list of links and while it has a clean look, to a novice PI or research administrator, the appearance can be overwhelming. Additionally, while the information is there, it is not particularly well known as an available resource for both PIs and research administrators. This is challenging for both those that have a designated research role and those who don't.

In the non-standardized environment, an office may hire individuals who indirectly link to grant management but don't have experience and aren't made aware of the compliance of how to operate with grant funding, or know about training, like in centralized departments where all financial transactions are processed by one group regardless of state funding or grant funding. Compliance may be reliant on someone that doesn't understand what is and is not allowable and doesn't know what resources are available.

There are multiple opportunities for both researchers and research administrators in our area (or virtually) to find employment that may have more streamlined processes, more competitive compensation, and may work in a more centralized environment with clearly defined processes and support structures. The need to ensure that training is available, easily accessible, and understandable to diverse audiences is essential to both retain, and potentially attract research administrators, and create environments that are welcoming and accessible to PIs.

Issue 5. NC State lacks a method to assess, evaluate, and provide feedback to the sponsored programs management process.

It is imperative that sponsored programs management remain both compliant with applicable institutional and sponsor requirements as well as satisfactorily meet the needs of various stakeholder groups, including but not limited to PIs, senior administrators, and sponsored programs staff (including Research Administrators and other staff who interact with sponsored programs). Assessment and evaluation are used (and often required) within other academic units, e.g., departments, academic programs, and centers, as a means to ensure that the unit's activities and outputs are aligned to the needs and expectations of relevant stakeholders.

Currently, there is no robust and continuous method to provide useful assessment and evaluation of sponsored programs management at NC State. The COACHE survey is distributed only every few years (i.e., infrequently) and includes only one or two generic questions about proposal submission and research management (i.e., not comprehensive). The lack of an assessment and evaluation plan is not surprising because assessing sponsored programs management is difficult, requires time commitment of both assessor(s) and stakeholders, and brings up questions related to survey fatigue, the specific characteristics of focus groups, etc. Nevertheless, it is an appropriate and helpful exercise for any organization or process, including sponsored programs.

Mechanisms that can be used in assessment and evaluation of sponsored programs management include surveys, focus groups, metrics, self-audits, self-studies, and external evaluations.[3] The mechanisms chosen for a particular sponsored program will be unique to the characteristics and needs of the specific university. For all these mechanisms, PIs are important stakeholders to include and are likely the largest and most outspoken customer base. Other important stakeholders would include Research Administrators, Department Heads, Associate Deans for Research, etc.

The lack of a regular assessment and evaluation of sponsored program management at NC State can lead to many undesirable outcomes, e.g., growing complaints from stakeholders such as faculty and Research Administrators as well as increasing vulnerability to non-compliance issues.

[3] "Improving Efficiencies: Assessing the Sponsored Research Operation," © 2019 National Council of University Research Administrators (NCURA).

PROPOSED PILOT PROJECTS:

In response to the charge from the Chancellor to propose pilot projects that address specific issues that could be implemented immediately in Fiscal Year 2025, the following two pilot projects are recommended. By no means are these pilot projects sufficient to address all the issues identified above. However, they are projects that, if selected for implementation, could begin to address some of the consequences resulting from the issues identified above, e.g., the challenges of a decentralized approach to sponsored programs management and staffing to support the research enterprise.

PILOT PROJECT 1: STANDARDIZATION OF PROPOSAL SUBMISSION TIMELINES

The Need Motivating the Proposed Pilot Project: The efficiency in sponsored programs management needs to be increased, particularly in proposal submissions and subsequent establishment of new awards, while sustaining/enhancing the effectiveness in compliance with federal and state requirements.

Pilot Project Background: A consequence of NC State's decentralized sponsored programs management structure is that proposals are submitted under a variety of timelines and processes. Processing of proposals under the diversity of these timelines requires additional effort, slowing processing times in a system that is already stressed due to understaffing. Furthermore, proposals are often submitted under a rushed submission process ("rush"), after published internal deadlines, that significantly disrupts workflow, efficiency, and effectiveness at both the time of proposal submission as well as, if successful, the award stage.

The non-uniformity of proposal submission timelines, requirements, and processes at NC State challenges PIs and research administrators to fully understand the deliverables required at each step in the process. Although many proposals straightforwardly apply to published or known submission timelines, complexity in a proposal type or format - even when involving a single PI from a specific college - can mask clarity of the required timelines for preparation of all proposal documents for PIs and research administrators. Clarity on requirements is further challenged in proposals involving PIs from multiple units/colleges, which are important for growing interdisciplinary research, due to differing requirements of the units/colleges. The lack of uniformity and clarity across NC State reduces processing efficiencies and, thus, processing times. Finally, the amount of documentation that is required for proposals and projects continues to increase (e.g., NSF's data management plans, mentoring plans for postdocs and graduate students, plans for a safe and inclusive work environment, individual development plans for scholars, and responsible and ethical conduct of research training for PIs), adding to the administrative burden of the review and submission processes required for effectiveness including compliance.

Furthermore, the number of "rush" proposal submissions is already high (between 10%-50% in any given unit). For example, over the past year in COS, 20% of the proposals and 52%

of other pre-award items were submitted to the CRO with less than 5 days of notice. Furthermore, the number and fraction of “rush” proposals is increasing with time. Over the past three fiscal years, COE experienced increases in rush proposal processing from 10% to 22%. It is abundantly clear from speaking with sponsored programs stakeholders that the "rush" processes for proposal submission: (i) disrupt normal workflows for proposal processing, reducing efficiencies in processing proposals submitted under normal deadlines, and (ii) significantly reduces the time allowable for a thorough review of terms and conditions and proposal details by research administration professionals, which (iii) can result in the awards received under rush processing to require additional changes to the award or re-negotiation with the sponsor and (iv) reductions in overall proposal and award system process efficiencies that are observed by PIs, especially the perception that proposals submitted under normal timelines are not acted upon until close to sponsor deadlines. Moreover, (v), the allowance of proposals submitted under rush conditions and the lack of a maximum capacity of rush proposals inadvertently encourages PIs to submit proposals under rush conditions, which continues to exacerbate the situation. While “rushed” submissions comprise perhaps the most obvious strain on research administrators, there are also many other aspects of the sponsored programs lifecycle (e.g., annual reporting) that routinely undergo “rushed” timelines and similarly stress sponsored program staff with potentially serious consequences (e.g., compliance).

The idea of a "rush" request has further infiltrated post-award management (e.g., in C&G) in areas related to project establishment, invoicing, close-out, etc. The urgency is often driven by discussions between PIs and funding agencies (e.g., program managers) at the beginning of a project, oftentimes before a project account or pre-award account is established, and for requests that are outside the terms of the agreement (e.g., requesting special invoicing). Additionally, during the close-out process, some agencies only pay invoices for expended funds after the university and PI satisfy final requirements (e.g., technical reports, invention statements, and property reports). If final requirements are not satisfied, then urgency or rush requests are necessitated to satisfy such requirements before certain consequences occur, e.g., de-obligation of funding by the agency or even threats of preventing future proposal submissions to that agency (a recent example is from UCSD[4]). The consequences of urgent or rush requests in post-award are similar to those experienced in pre-award, e.g., disrupting normal workflows and reducing overall process efficiencies.

Pilot Project Approach:

1. Create and enforce **standardized proposal submission timelines** across NC State’s decentralized sponsored programs systems by collaborating across ORI, colleges, and Departments where applicable
2. **Reduce the percentage of proposals submitted that do not comply with the regular submission timeline (e.g., <5%)** from each college in the short term (and less in the long term) by requiring the Dean or their designee (e.g., Associate Dean for Research)

[4] https://www.chronicle.com/article/one-scientist-didnt-turn-in-his-grant-reports-now-federal-agencies-are-withholding-grants-for-an-entire-university

to approve each proposal submitted under rush and end-of-year tracking to monitor conformance

3. Produce **clear documentation and training materials** that describe the overall proposal submission timeline requirements for PIs and Research Administrators, and invest in **standardized research administrator training** to provide a common knowledge base and appropriate capacity around the processes, timelines, and coordination (“rhythm”) across campus that is required for efficient and effective proposal handling

Pilot Project Benefit and Metrics: It is expected that implementation of this pilot project will result in increased efficiencies in proposal processing times and establishing new awards as well as increased effectiveness in execution and compliance with requirements and regulations, the latter especially for proposals submitted under “rush.” Such increases in effectiveness and efficiency should lead to increased satisfaction by stakeholders (e.g. by PIs, sponsors, Research Administrators, and general administration). While the COACHE faculty survey addresses general questions related to Goal 2 of the Strategic Plan (Ensure preeminence in research, scholarship, innovation and collaboration), the questions are not sufficiently specific to evaluate this pilot project. Certain metrics in SPARCS and C&G may be able to quantify aspects of this improvement (e.g., normalized proposal queue sizes by research administrator, proposal and award processing times, and times required for post-award account establishment). Quantification of PI satisfaction would be more difficult as there are not currently metrics in place to assess customer satisfaction of the sponsored research enterprise in a robust and continuous way, which is a related challenge discussed earlier as one of the major issues. Research Administrator satisfaction would be equally hard to measure; however, benefiting from reduced instances of “rush” proposals allow for the possibility of higher staff satisfaction that could be measured in retention and overall job satisfaction as “rush” proposals require pivots and changes that slow down all awards processing at the proposal stage.

Pilot Project Implementation: Implementation of standardized proposal submission timelines would need to be mandated by university leadership, coordinated across ORI, colleges, and the Departments who offer sponsored programs support, and self-enforced by the submitting units, e.g. colleges and ORI. In parallel to the Task Force identification of this proposed pilot project, the Office of Sponsored Programs was preparing a new policy on timeline requirements for proposals that require their involvement. It is recommended to start with the Sponsored Programs draft policy and collaborate with colleges and departments to create a more comprehensive policy that includes unified requirements across NC State. Since some proposals are submitted by Sponsored Programs and others by Authorized Organizational Representatives (AORs) in the colleges, a standardized timeline will need to account for these and other nuances. The coordination required across colleges and ORI could be facilitated by an internal or external consultant or a designated employee.

Constraining the number of rush proposal submissions to a certain percentage, e.g. <5%, would also need to be mandated by university leadership, implemented at the college/unit level, possibly involve new processes for securing the approval of a dean or designee, and audited for compliance by unit at the end of each fiscal year. Importantly, it is noted that the consequences of excessive rush proposals (including but not limited to decreased system efficiencies for proposals submitted under normal timelines) may need to be illuminated to PIs.

The production of clear documentation and training materials and central research administrator training could be coordinated by Research Operations and Communications in ORI.

PILOT PROJECT 2: STRENGTHEN RESEARCH ADMINISTRATOR WORKFORCE

The Need Motivating the Proposed Pilot Project: **Motivating Pilot Project**: To reevaluate, restructure if necessary, and reinforce research administration positions to increase retention and career progression of Research Administrators, and agility to respond to emerging needs and growth in sponsored research

Pilot Project Background: The number of Research Administrator positions have not grown commensurately with the large growth in research awards and expenditures, which has strained the research enterprise over the past several years. This fact is evidenced both by data presented earlier in this report and through significant feedback from stakeholders to the Task Force. In parallel, a lack of concerted effort at promoting professionalization and career progression for Research Administrators limits efficient execution.

As discussed earlier, NC State's sponsored programs management structure is highly decentralized, with Research Administrator responsibilities distributed across central offices, colleges, departments, centers, programs and even individual labs with robust external funding programs. Each college determines the level of support it provides to its researchers and the associated administrative structure. Decentralized models introduce many inefficiencies. In the present context, decentralization contributes to inconsistency that challenges faculty and staff to understand individual roles and responsibilities, making it difficult to successfully maneuver within the research enterprise. In addition, the lack of a common structure makes it more difficult for staff to perceive career trajectories and succeed in career progression.

Positions at NC State are governed by state legislation and separated between positions that are either Subject to the Human Resources Act (SHRA) or Exempt Professional Staff (EPS)/Exempt from the Human Resources Act (EHRA). SHRA positions follow career bands from the Office of State Human Resources (OSHR) that broadly represent myriad positions at NC State. EPS/EHRA positions have more flexibility in position designation and description and are overseen by the UNC Board of Governors. Neither EPS/EHRA nor SHRA systems have dedicated Research Administrator positions which has led to inconsistent position descriptions, roles, expectations, and unclear paths for advancement within NC State. Moreover, current position classifications neither address the complexity of Federal rules and regulations nor acknowledge that the skill sets for these positions are specialized and depend on a combination of training and experience. Research Administrators have their own professional societies and credentialing body with a nationally competitive job market that frequently supports fully remote work. A lack of clear understanding of these factors in the position descriptions and career bands contributes to challenges in hiring, adequately compensating and retaining research administrative staff.

The turnover experienced in Research Administrators at NC State also affects efficiency and effectiveness in both the short and long term. As described earlier, at the time the Task Force was charged, there were many vacant positions within Sponsored Programs and C&G. These vacant positions, and turnover overall, results in increased workloads of other Research Administrators, which results in a slowing of proposal processing times observed by PIs and staff. Over the longer term, the recruitment and training required to fill the open positions reduces the efficiency and effectiveness of the entire system.

The challenge of consistency in Research Administration positions is not unique to NC State. Dr. Jennifer Woodward, Vice Chancellor for Sponsored Programs and Research Operations and Professor of Surgery and Immunology at the University of Pittsburgh has received a workshop grant[5] from the National Science Foundation to contribute to the development of a national research administrator job classification system applicable to the wide array of administrative roles that support sponsored research activities. While Dr. Woodward has agreed to NC State's participation in the workshop[6] and to share the results of the workshop broadly, NC State cannot wait to take immediate corrective actions.

Pilot Project Approach:

1. Evaluate **job descriptions, classifications, and compensation models** for Research Administrator positions in Sponsored Programs, C&G, and colleges and departments. Identify where unique and common positions exist and develop a structure with clear and consistent job descriptions, training, and advancement opportunities wherever possible
2. Complete a workload analysis of central offices, college and departmental research administration positions at NC State and use that information to **increase funding for staffing and training** in areas of greatest need to support the growth in research volume and complexity
3. Develop an **internal talent pipeline program at NC State** for Research Administrators that cultivates talent extending from the ranks of NC State undergraduates to senior research administrators, connecting current and future research administration needs with NC State educational and training programs
4. **Elevate a few highly talented Research Administrators** to a highest-level position that recognizes and uses their experience and skills to fill temporary gaps in various areas of research administration in central offices, colleges, or even departments that experience emergent needs

Pilot Project Benefit and Metrics: Creating unified and benchmarked position descriptions will allow for a standardized starting point for all research administration positions. Uniformity will

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[5] https://www.nsf.gov/awardsearch/showAward?AWD_ID=2324360&HistoricalAwards=false
[6] https://www.srainternational.org/events/event-description?CalendarEventKey=8fb7f08a-2b01-4c41-a4cc-0191355e400c&Home=%2Fevents%2Fcalendar

provide a clear understanding of the role and expectations of the positions and the opportunities for advancement, and still allow for flexibility based on the needs of particular offices, whether it be in a centralized or decentralized college. Providing clear and consistent job descriptions for research administration staff will provide for a more content and stable workforce, which can be measured in increased staff retention or transfer of knowledge internally as employees advance within the same offices or within NC State. Utilizing JCAT categories may help to track internal movement of research administrative staff.

Stability in all offices will result in better response times and support for PIs. Development of training that is mandated for research administrators will contribute to the growing skills of research administrators, providing a strong environment and culture of continuous learning to remain agile to respond to emerging needs in sponsored research support. Creation of the highly-trained flexible and deployable research administrators will further demonstrate a culture of continuous learning and support. Tracking deployments, in addition to successful support when necessary could be tracked by creating initial metrics and tracking growth. Development of an internal pipeline for Research Administrators will be evident in increased hires from NC State trained research administrators and can be tracked based on successful hires and retention of NC State students.

Pilot Project Implementation: In the short term, we must develop a mutual understanding of what constitutes "Research Administrator" as part of the job creation process. Then, position designations and structures from other current R-1 institutions can be identified and reviewed. Utilize the talent and strengths of internal constituents to build consensus and support that leverage existing internal and external resources (e.g., LevelUP, Society of Research Administrators International, and Research Administrators Certification Council, NCURA). Designate a specific individual to lead execution, e.g., a high-level administrator in research, human resources, or finance and administration. Identify relevant research administration positions at NC State. Create the necessary buy-in through top-down support to align like positions across campus, units and colleges with the assistance of the employees that are dedicated to Research Administration positions within UHR, recognizing that positions are not one-size-fits all, but can all start with the same blue-print. Position planning and blueprints must include clear understanding of identified navigable pathways for career advancement. Should UHR deem an outside consultant useful for evaluating positions, provide funding and support to create a RFP to both assess research administration positions and establish where staffing investments are needed after process inefficiencies are addressed. Grow the number of staff positions in the research administration workforce in areas of greatest need, starting with central offices.

In the longer term, learn from other units on campus that leverage internal talent of undergraduate and graduate students to develop and train those who are passionate in research and translate that interest into research administration. Work with internal partners with successful pipeline or intern programs like OIT, UHR, and the Office of Undergraduate Research as well as potentially other R-1 institutions models to develop talent internally by working with academic partners in Education, CHASS, and Management utilizing resources like

PEP funding, work study and TAs with GSSP to build a talent pipeline growing Research Administrators internally. Develop training that builds research administration from the ground up, utilizing NC State systems and federal and industry requirements to train individuals as they begin their careers including robust and required training that fulfill the needs at all levels of skill though highly experienced professionals. Develop and mandate new and existing training specific to the audience. Identify and utilize highly experienced professionals to start as the basis of the “super floater” concept as a centrally funded and deployed resource. Create a job satisfaction survey for research administrators, look at the number of vacancies, turnover rates, and conduct another workload analysis to see if the increase in staffing has addressed the heavy workloads that were originally identified.

As ongoing support, it is recommended to have either a task force member, lead or VC of Research or HR participate/attend Dr. Woodward’s conference.

<u>The Task Force on Sponsored Programs was constituted of the following members:</u>
Co-Chair: Jacob Jones, Kobe Steel Distinguished Professor, Materials Science and Engineering
Co-Chair: Alan Porch, Staff Senate Chair and Business Manager, Mathematics
Monique Burnette, Operations Manager, SPARCS
Christine Epps, Asst. Director of Pre-Award, College of Natural Resources
Jack Foster, Director of Software Development and Integrations, Enterprise Application Services, Office of Information Technology
Karen Hollebrands, Assoc. Dean for Research and Innovation and Alumni Distinguished Undergraduate Professor of Mathematics Education, College of Education
Kirk Main, Director of Information Technology and Operations, Wilson College of Textiles
Carolyn Mattingly, Distinguished Professor and Department Head, Biological Sciences
Allison Nelson, Assoc. Director of Post Award, Office of Contracts and Grants
Shirley Rich Patterson, Post Award Manager for Contracts and Grants, College of Agriculture and Life Sciences

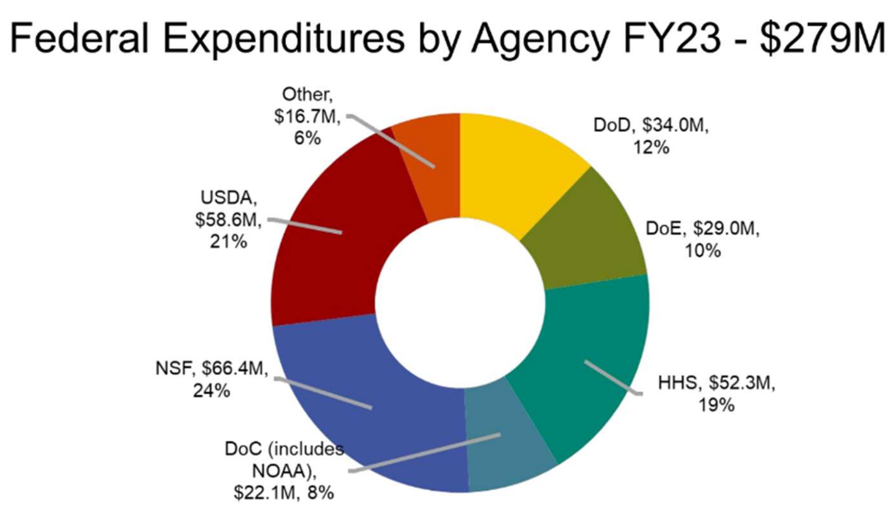
Final Report, Research Implementation Task Force
Part of the Research Administration and Support Services Task Forces

Background/Introduction:

As a research-extensive land-grant university, NC State's leadership has rightly envisioned and championed growth in research activity across a comprehensive range of disciplines. The university is increasingly recognized nationally and internationally as a leader in research and engagement to solve critical challenges. The chart below characterizes how much NC State research activity has grown over the last eight years. The growth has been astounding by all measures - proposals, awards, F&A generated, research expenditures, etc. Moreover, these research expenditures have been sponsored by a number of different federal agencies that are increasingly funding large multidisciplinary, multi-institutional projects as shown in the figure below.

NC State Research Metrics Over Time

	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	% Change Over 8 Years
Proposals	1,309,658,306	1,151,317,762	1,312,594,608	1,412,318,711	1,638,489,211	1,537,953,257	1,576,593,737	2,499,374,867	**90.84%**
Awards	405,982,860	335,477,142	372,993,237	398,287,848	383,715,007	408,947,301	478,757,922	517,044,494	**27.36%**
F&A Generated	52,080,284	54,290,523	56,512,851	56,931,756	59,859,855	64,665,044	71,242,389	78,013,849	**49.80%**
Research Expenditures (HERD Data)	500,444,393	509,841,000	541,100,000	546,290,000	547,118,000	583,203,000	633,251,000		**26.54%**



This year-over-year increase in sponsored research activity has challenged our existing infrastructure and administrative processes. Most of the services that support our research enterprise have not kept pace. On April 9, 2024, Chancellor Woodson charged the Research Implementation Task Force with identifying pressing issues impacting research administrative and support services and making actionable recommendations for change. Specifically, our group was tasked with evaluating and making recommendations in the areas of “research implementation (HR, travel, purchasing, etc.)”. By June 30, the Task Force had identified six pilot projects. This final report includes those six as well as seven new pilot projects.

The Research Implementation Task Force group began its work by evaluating the data already in place from the open letter and the work of the faculty Research Leadership Academy (RLA) and its survey. In addition, the task force and its subcommittees met with multiple expert advisors across areas of research implementation concern, reviewed submissions through the RASS email, and the information received on July 10th from the follow-up survey to open letter signatories. The task force also surveyed the top 25 travelers across the university, top 25 travel initiators, top 25 travel approvers, top international travelers, top research travelers, assistant deans of finance and others.

As depicted in the chart, over the past eight years, research activity has surged, creating a significant need for new and retained support talent on campus. However, many units, including HR, the travel audit office, colleges, and departments, face labor shortages and high turnover. Despite increased research productivity, the number of administrative, research, financial, HR, and other support staff has not kept pace, leading to widespread people and system support issues.

Based on an analysis of the RLA survey and information received through the surveys, and given a limited time to return pilot projects, the task force identified Human Resources and Travel as the primary areas of focus. While we did not conduct an in-depth review of all central items, we have received substantial feedback throughout our review process. In addition to our pilot projects that largely focus on human resources and travel areas, we also recommend that all procurement processes be evaluated - including contract and PO processing, various form requirements, and digital versus physical signature requirements on those forms. Two additional items brought up multiple times in the feedback were transparency of F&A calculations and distribution of funds as well as GSSP support for students on grants. We strongly recommend these items be evaluated and addressed separately.

The pilot projects below are linked to the proposal details for ease of reference.

Pilot Project #1: Open Data Pilot

Statement of Issue/Challenge & Background

NC State currently has a very closed system regarding transactions and data access. For campus users, restrictions are limited by OUC (organizational unit code), generally by College/2 digit unit. Most campus users can only see data and work with transactions within their OUC. However, 22-30% of NC State's research projects every year include more than one college, with additional interdisciplinary research between college departments. Due to the large and increasing amount of interdisciplinary work and the inability to efficiently collaborate on transactions such as travel, purchases, and HR actions, there are significant delays and challenges with accurate and timely transaction processing across campus. By improving system transparency and enabling cross-departmental collaboration, we also seek to enhance the efficiency of HR processes, particularly for interdisciplinary research projects. There have been efforts since as early as 2021 to address these needs at the university which have not yet been prioritized and implemented. Examples of some of that work are included here.

Working interdisciplinarily is challenging as frequently individuals cannot see the information they need. For example, HR data can only be seen by individuals with access to the OUC where the person reports, but they may be paid by and thus have a budgetary impact across multiple OUCs. Additionally, some individuals report for personnel purposes in an OUC but are allowed to spend operating funds of another OUC, but their transactions are only seen by the "home OUC" including marketplace, P-card, vouchers, etc. This lack of access often causes delays in getting transactions processed accurately and adds administrative burden. It can also create difficulties in budget reconciliation and appropriate monitoring of expenditures. Units often create other workarounds in order to ensure the appropriate personnel have approved. It seems that this decision to close OUC access was made many years ago, and it is not clear that the benefits of maintaining the closed access still outweigh the efficiencies that could be achieved by having a more open system.

System setups create challenges to interdisciplinary work as individuals are not able to see the information they need and instead have to create workarounds to complete work across OUCs. NC State already has policies in place to protect its data and hold people accountable. This lockdown of access to data across OUCs is placing unnecessary administrative burdens. Additionally, annual data security training is required, which reminds individuals of how to protect and appropriately use data.

As an example of how this creates inefficiencies, consider the current situation that exists between the N.C. Plant Sciences Initiative (PSI) and ORI in which an employee reporting into ORI, but based in the Plant Sciences Building (PSB) cannot have purchases approved within the current systems because the OUC being charged for business purposes is different from the OUC being charged for the employee's salary. The workaround most easily identified by PSI and ORI staff is to conduct simple email approvals, but both agree this is not a suitable nor sustainable practice over the long term. Another illustration from the PSI, is the situation in which the PSI employs a University Program Specialist, whose salary is paid from a CALS/PSI account, yet whose reporting supervisor is in the College of Engineering (COE), and this employee regularly encounters roadblocks when trying to work between CALS and COE business offices. Furthermore, this type of situation is not an isolated example even within PSI.

As another example, the SAR system faces specific challenges with the Plant Sciences Initiative, which spans multiple colleges. An employee from the College of Engineering (COE) requires certain system and security access in COE as well as in CALS. COE HR is responsible for setting up SAR access, however, is limited only to granting the needed access in COE and can not request the needed SAR access in CALS because of the closed system. This requires duplicative work in COE and CALS in order to provide one employee the needed systems and security access. Consequently, researchers or support staff face delays due to duplicate access requests across colleges. For instance, it took three months for one college to complete SAR access for a Program Manager because it involved multiple OUCs, with limited guidance on how Project IDs and OUCs affected the approval process.

A third example is a faculty member that has a home department in the college and supports a university academy. When the individual was hired, it took four months of communication between the faculty and the OUC HR leads for complete access in the SIS systems because the request was in a college with only a professional program and the faculty member was teaching undergraduate courses in another OUC so they needed to rights to assign students as an advisor, to approve course substitutions, etc but they did not know what SIS Plan Selections were associated with their role and there was a lack of resources to assist and the approval process was extended due to the crossover in OUCs. Here are screenshots of the information in SAR that had to be waded through without good resources and the approver list for one request.

Additional examples of challenges:

- If an employee has a P-card, it is tied to a specific OUC and a specific project ID; you cannot reconcile outside that OUC. In order to do this, you have to reconcile the transaction to one Project ID, then process an IDT or a journal to move the expense. This adds time and effort at all levels and is inefficient. Because it creates the need for an additional task to be completed, it also adds the potential for erroneous charges to be left on an incorrect project. This can be an audit risk for externally funded projects.

- Student Services - if you hire a part-time faculty to teach for an interdisciplinary program, not all departments have access to student evaluations.
- Salary redistributions across OUCs are extremely time-consuming and difficult to coordinate. A delay in processing redistributions can cause the university to be non-compliant with federal regulations. Typically these have to be sorted out through emails, verified after entry (which can take a long time), if incorrect have to be resubmitted, and sometimes are missed completely if units are unable to coordinate well. With payroll lockouts, over 90 day justifications and grant closeouts thrown in, it makes it even more difficult to get these done on-time and correctly.
- Transferring positions from one OUC to another is extraordinarily challenging and cumbersome.
- Financial approvals are based on the home OUC of the employee making the request, rather than the OUC of the funding source. Because of this, some people can end up approving transactions on funds they don't manage. This too, is an audit risk as all expenditures should be pre-audited prior to approval.
- There is limited ability for units to design queries and a general lack of access to tools for analyzing information across OUCs specifically to HR data. Often the tools are only available to the central units that don't have the time and staffing available to explore and advise on every unit-level reporting need.

Some specific comments we have received during the data gathering process:

- *"NCSU's accounting and procurement systems are outdated, inefficient, and untransparent."*
- *"Given access to numerous powerful software/electronic systems nowadays, it could be made much better."*
- *"This issue is currently jeopardizing efficiency of our research activities, discouraging many faculty members who work so hard to get funded continuously."*

Project Description

Establish a work group that is inclusive of campus end users and data stewards to reconstruct systems so that they are open and nimble for work across the university. It is crucial that the group includes faculty and campus staff (research, human resources, financial) who regularly collaborate across colleges and departments.

Allow access to all data and system OUCs for all processors; help access grantors understand the efficiency gained by allowing individuals to have the access they need. In addition to efficiency gains, there are gains in accuracy by allowing transactions to be entered where they are best understood. If an additional level of approval is needed, then the systems should be flexible enough to allow the insertion of approvers. Create a clearly-defined, transparent decision-making process for access to data, with a rubric made by the data stewards as to who they view as needing data access. Also a detailed, uniform guidance as to why anyone would be denied data access or an explanation on why individual requests are denied.

Create an open system which also reduces the need for multiple SAR requests and workarounds outside of the system. Empower employees within units at the same levels as their peers in central HR and financial offices with the tools/data access that are currently centrally held.

Suggested Project Timeline
Workgroup established as soon as possible; report back to the Chancellor, Executive Vice Chancellors and Research Implementation Task Force by January 2025.

Resources Needed

- Faculty and campus staff (research, human resources, financial) who regularly collaborate across colleges and departments
- OIT personnel who maintain campus systems infrastructure
- Legal personnel to advise; Internal audit to assess risk
- Funding for meeting expenses of the group
- Ability to call on others on campus as well as collaborate with other universities to consider alternative models

Pilot Project #2 Strategically Leveraging Artificial Intelligence (AI) for University Operations

Statement of Issue/Challenge & Background

Research activity at NC State has escalated substantially in the past 10 years, and with that, the need for hiring new talent and retaining talent on campus has also increased significantly. Adding to these challenges, many units on campus, including HR, the travel office, and the various colleges and departments, have faced significant labor shortages and/or high employee turnover. Furthermore, the university relies on “self-service” models in many systems which means faculty directly enter their travel, for example, but do not have easily accessible local administrative expertise to assist them. This self-service model, the labor shortage, and inexperience of new employees have caused delays in processing various requests at all levels, including travel requests and HR actions. These delays are frustrating for faculty who rely on timely administrative support. Employees may not be able to be fully trained in university/college/department policy and processes in a short time. Due to varying levels of understanding among employees about policies and processes, there is inconsistency in the guidance provided to faculty, leading to further frustration. The shortage of administrative staff has resulted in faculty members having to perform more self-service tasks, reducing the administrative support they traditionally received.

Some specific comments we have received during the data gathering process:

- “*There needs to be more quality control to ensure that PIs get the best possible service. and that all tasks that can be possibly done by someone who is not the PI are done not by the PI. We are severely overtaxed and at our limit. In the past the response from administration has always been if something does not work, let's make the faculty do it. That should not be how it works.”*
- *“It seems there is too much reliance on PIs to do the administrative work. Since so much is decentralized, smaller departments don't have sufficient internal support and then things fall onto the PI. A centralized system which can handle absences efficiently would be important. I lost money because of such a problem. Of course, this also means that the university lost the equivalent overhead rate.”*
- *“Provide clearer directions on what information is needed for travel to be approved and the necessary documents for the reimbursement be approved in a timely matter. Ensure the travel department has firm guidelines for the deadline to approve travel and reimbursements after being submitted.”*
- *“I and others within my department have often waited weeks and months for a reimbursement. This is often detrimental to mine and others financial situations.”*

Project Description

Strategic leveraging of Artificial Intelligence (AI) in university operations and workflows could markedly improve efficiencies by reducing employee workload and the time required to complete specific actions and by adding consistency to processes while reducing subjective interpretations.

For the implementation of AI solutions to reduce the administrative burden at all levels and ensure compliance with university requirements, the following short-term pilot actions are recommended:

- Automated Document Redaction – Use AI tools like Foxit Smart Redact to automate the redaction of documents. This will save time and ensure compliance with university travel office policy requirements. Another option to address redaction is that it simply could be eliminated as a requirement prior to travel reimbursement approval. It could be considered as only being required when items are pulled during a public records request. If that were the case then it would eliminate this cost and frustration completely.
    - Why is this a pain point?
        - If a faculty member submits their credit card statement to prove travel expenses (common with international and research travel), and more transactions are visible than the one they are justifying, then the entire travel item gets denied at either the unit or university level to have all other transactions blacked out. Notifications are generated to everyone in the approval workflow. Then someone, generally the traveler themselves, has to remove the attachment, put it into a pdf editing tool (only available to those with paid adobe licenses), re-upload, and resubmit. It is not always clear that the additional time, energy, and expense in this process is truly valuable. If a risk analysis shows that it is extremely important, then perhaps the university should purchase a system-wide tool to handle this need.
- Implementing Chatbots for Travel Policy Queries – Deploy a chatbot such as chatbase or intercom to handle travel policy questions. The chatbot can provide instant answers and redirect inquiries to the correct communication channels, ensuring timely, efficient, accurate, and consistent responses. In addition, the chatbot might be able to help with reminding travelers to attach all needed documents.
    - Feedback from the travel office as well as processing staff indicated that 85% of the questions they get are the same. By adding a chatbot to assist with these questions, it would allow staff to be focused on the more difficult issues.
    - More information regarding this suggestion is also found in the pilot project on travel system enhancements section below.

- AI review of travel reimbursements - the university is currently using an AI tool to review P-card receipts at a high level for compliance. This same type of tool should be looked at to review the vast majority of travel reimbursements. Ones flagged as requiring additional review could then be reviewed by staff who would have more time to work in a collaborative manner with the traveler.

It is further recommended that a work group be put in place to assess which university operations and processes beyond those outlined above could benefit from AI assistance. This evaluation piece would involve consultation of AI experts and input from other universities who have already adopted AI-assisted university processes (e.g. University of Virginia, University of Michigan). In addition, for development and implementation of AI-assisted university processes, the following considerations should be addressed by the work group:

- University IT Policy and Data Security – Implementation of AI solutions must adhere to University IT policies and maintain data security.
- Collaborations Between University-Level Offices and College/Department Offices – AI solutions must be vetted through both university and college offices to ensure that effective implementation and collaboration between university-level offices and individual college or department offices is supported by the AI-assisted processes.
- Integration of AI Software with the University's Internal Self-Managed Financial System – Consideration will need to be given as to how to effectively switch to or embed AI software within the existing self-managed financial system of the university.
- Financial Support for Implementing Advanced AI-Powered Software – Financial support to implement more advanced AI-powered software will need to be secured. This involves not only the initial investment, but also ongoing costs related to maintenance, training, and updates.
- Training and other needs to help employees start using AI tools.

Suggested Project Timeline

A workgroup should be established as soon as possible to pursue the above recommendations and identify which additional university operations and processes would most benefit from AI-assistance tools. This workgroup should develop an AI-assistance tool development and implementation plan. Initial report back to the Chancellor, Executive Vice Chancellors and Research Implementation Task Force by December 31, 2024.

Resources Needed

- AI-assistance tool development experts and approval to consult with experts at peer institutions that have developed and implemented AI-assistance tools
- Faculty and campus staff (research, human resources, financial) who regularly collaborate across colleges and departments
- IT personnel who maintain campus systems infrastructure
- Legal personnel to advise
- Internal audit for risk assessment
- Funding for meeting expenses of the group and software development and maintenance
- Campus experts in AI or outside consultant if none identified on-campus

Pilot Project #3 Establishment of a Career Progression Model for Postdoctoral Scholars

Statement of Issue/Challenge & Background

It is an NC State policy that postdoctoral (PD) scholars can remain on campus in that role for only 5 years at which point they must either leave the university or be rehired into a different position classification (Regulation 10.10.08, policy statement 4.4.2; https://policies.ncsu.edu/regulation/reg-10-10-08/). While the time-limited nature of PD positions on campus is meant to keep PDs progressing along a career path, there are no processes in place that help navigate the position transition. As a result, uncertainty and stress occur for both the PD and their mentor. In addition, the university may lose talented postdoctoral scholars due to this uncertainty and stress.

Some specific comments we have received during the data gathering process:

- "We need to *create more competitive postdoc fellowship programs at NCSU (both national and international)"*
- *"HR told me they could not make an offer for postdoctoral employment to a PhD student (finishing PhD in December and starting as a postdoc in January) because they did not yet meet the requirements of the position. We had to explain to them that you can add the phrase 'this offer is contingent upon successfully completing the PhD prior to starting.' Unbelievable!"*
- *"Updating our postdoc career progression will ensure continuity of the research program and mitigate the loss of institutional knowledge that occurs if a postdoc times out new talent has to be brought in and trained."*
- *"International postdocs often have a mix of support from our grants and their home countries, often because they have won a competitive award. Sadly, this award significantly complicates everything from visa status to health insurance to paychecks (for which the new federal regulations have been interpreted by NC State to require them to clock in). These circumstances are common enough that they and our department-level HR partners need access to resources (financial and logistics and $) so it doesn't take months to sort out the financial issues."*

Project Description

To address this issue, it is recommended that a standard career progression and process be established for when a PI requests a PD scholar to move into a EHRA/EPS (Research Scholar) or a non-tenure track faculty position (Assistant Research Professor) that bypasses classification and compensation and waiver processes. Or, at minimum, introduces a standard career progression model and pipeline that allows for quick review and approval at those levels. Furthermore, it is recommended that an employee’s time in a PD position be tracked and notification be provided to the PD, their mentor and their home departments when one year of eligibility remains. That would allow for more appropriate position transitions to be arranged prior to the end of PD eligibility.

Suggested Project Timeline

It is anticipated that establishing and implementing the proposed standard career progression and process for transitioning PD scholars to more senior positions could be accomplished within a 6-month period.

Resources Needed

- HR experts to provide input for developing PD career progression model and HR action pipeline
- PD Faculty mentor input
- IT support to provide PD time in position tracking
- Office of Postdoctoral Affairs expertise and processes

Pilot Project #4 Improving Human Capital Management Systems at NC State

Statement of Issue/Challenge & Background
In discussions with human resources and systems management experts at NC State, significant concerns have been raised about the efficiency of our current human capital management systems, specifically PeopleSoft and PeopleAdmin. These systems are crucial for managing personnel data, payroll & related expenditures, and other HR functions, yet they create process inefficiencies, data frustrations and lack of workflow transparency.

This pilot project aims to address the limitations of the current PeopleSoft (HRMS) including the Identity Management - Security Access Request (SAR) process at NC State that impact access to pertinent financial, HR and SIS systems, focusing on its high level of customization and lack of integration with other systems (e.g., PeopleAdmin, Peoplesoft Financials)

Some specific comments we have received during the data gathering process:

- *"There needs to be more transparency with HR. The PI posting the job should be able to know where the job is in the process and what steps are happening during that time. Currently the department HR person knows when they turned it over to HR, but not what they are doing or when it will be approved. There should be a way for the PI (or poster) to be able to follow a job posting through the process and know where it is every step of the way and what is happening in that step and what the expectation is for moving it along. HR will tell you that it's 10 weeks from when you send them the posting to when you have a person in place, but that's a fiction. There should be clearly delineated people and turnaround times for all steps in the process."*
- *"Less red tape on hiring processes and again more transparency and efficient systems are needed in HR too. Ex. Hiring SHRA, EHRA, and a postdoc are different. How does one find this out? There needs to be one location or website where this information is housed. Each college has their own website and they do things differently. There needs to be ONE place for this at NCSU that each faculty member can go. Also when you onboard a new faculty this needs to be told to them."*

Project Description
By enhancing the integration and transparency of the HR management processes at NC State, this pilot project aims to facilitate smoother interdisciplinary collaboration and improve overall efficiency in human resources functions. With a focus on stakeholder

engagement and data-driven solutions, NC State can have a more effective and responsive HR environment that supports the growing needs of interdisciplinary research initiatives.

This proposed pilot project aims to:
1) evaluate current system actual and self-imposed limitations (our data access is self-imposed), enhance transparency of recruitment and hiring processes,
2) promote interdisciplinary collaboration by streamlining HR actions (as well as travel, purchasing, salary distribution, etc.) across multiple OUCs to reduce delays and inaccuracies,
3) enhance transparency by developing mechanisms to improve visibility into the recruitment and hiring processes for research positions
4) propose a path forward by recommending system updates and policy changes to foster a more integrated and transparent HR management approach. These aims will be accomplished through the following steps.

To address this, it is recommended that a working group be established and charged with reviewing Peoplesoft and PeopleAdmin implementation on campus to understand: 1) how systems may be driving inefficient processes, 2) where unnecessary layers of manual processing or workarounds may be occurring, 3) how workflow transparency can be improved, and 4) how process improvement can be better leveraged. Specific recommendations that the working group should prioritize to address the Pilot Project aims are described below.

Recommendations:

1. **Conduct a Systems Audit:** Evaluate the current PeopleSoft and PeopleAdmin configurations and their customizations, assessing their impact on efficiency and usability. Determine if our closed OUC system is needed.
2. **Stakeholder Engagement:** Gather input from faculty, HR personnel in UHR and Colleges/Divisions, and administrative staff regarding their experiences and needs related to HR processes and position management.
3. **Assess Integration Needs:** Identify key data and processes that require integration between PeopleSoft and PeopleAdmin, focusing on recruitment and position management. Another helpful tool would be better integration of job descriptions in People Admin to the new Performance Evaluation system.
4. **Develop Transparency Tools:** Create dashboards or tracking tools that provide real-time updates on the status of classification, re-classification, and recruitment processes for research positions.

5. **Pilot Integration Solutions:** Test proposed changes with select interdisciplinary research projects to measure impact on efficiency and transparency.

Suggested Project Timeline

It is anticipated that a 12-month timeline would be needed to accomplish the recommendations identified for this pilot project.

Resources Needed

- IT experts who manage campus systems infrastructure to serve on the work group and/or consult with the work as needed
- Input from Human Capital Management systems users at the university, college and department levels
- Personnel, consultation services, funding, etc.

Pilot Project #5 Third-Party Lodging Policy & Process Reviews

Statement of Issue/Challenge & Background

Third party lodging (non-commercial lodging such as Airbnb, VRBO, etc) requires pre-approval from the University Controller's Office (see University Travel Manual page 29).

OSBM Budget Manual Section 5.2.4 specifies the State's requirements for Third Party Lodging. "Internal agency approved third party lodging requests and payments must include documentation contained in travel or accounts payable records that provide evidence of savings to the State." OSBM states that agency heads should set internal policies regarding third-party lodging. State/OSBM policy also requires documentation of evidence of cost savings to the state. For reimbursement, the charge amount, length of stay, projected cost savings and contract information must be provided. "Third party lodging agreements are not allowed among family members or where such agreements or payments create a financial conflict of interest to the traveling employee or other agency managers or employees. Third party lodging may include, yet is not limited to, online website house or room rental services."

NC State details and form; NC State Internal Policy

Researchers and their teams may need to secure lodging in remote locations where commercial lodging is not readily available or where it may not be conducive to the research work. In many cases, the travel budget, including lodging, is entirely supported by the sponsor, and the State/OSBM/University requirements add a layer of work for researchers as well as central university staff.

Specific concerns heard by the Task Force include:

- *"When researchers return to the same location with the same need for third-party lodging, a new request must be completed for each visit."*

- *"It can take a long time to get approval for third party lodging which may make it too difficult even if it is less expensive or makes more sense for the research project. The property may no longer be available if the NC State process takes too long to complete."*

- *"There are many detailed requirements for NC State approval of third party lodging."*

- *"There is no mechanism to speed processing of recurring Travel Authorizations. My group goes to the same biological field station year after year - typically 3-4 travelers. Each year, I go through the same prolonged exchange around the same special issues that apply to this travel (on-site lodging at non-profit still treated as 3rd party, receipt format of certain mandatory vendors, etc.) I have to* *do this for each of the travelers individually, because apparently the Group TA isn't intended for research group travel. There is no consistency in who processes the TAs, so each year we cover the same issues. The ability to send on TA per group for related travel & to renew previous TAs (i.e. updating dates and traveler identities) would save wasted time and effort for both travelers and University staff. Could we have a field in the TA where we refer the approver to a previous, similar travel?"*

- *It takes weeks to get approval for third party housing (e.g. AirBnB) with slow back-and-forth with staff, making it impossible to use cheaper or closer lodging options for people who travel often, with large groups, or with short notice for research. Meanwhile, other universities allow large groups of students to save money on AirBnB."*

- We even heard from the travel office that they felt the process was overly complicated and they wished it could be more streamlined.

Project Description

- Build pre-approval of third party lodging into the Travel Authorization process. If a traveler requests approval for third party lodging, send that portion of the Travel Authorization to the University Controller's Office for review before the Travel Authorization is finalized. *(Currently Travel Authorizations stop at the 2 digit OUC level which may be sufficient for most travel but third party lodging seems to be more complex and may need travel audit review sooner rather than later. In other words, all of the checks and balances done at the travel audit stage may not be done in the travel authorization process currently which leads to confusion and frustration later.)*

- Define timelines for requests for Third Party Lodging
  For example, UNCC requires submission of requests no less than two weeks before travel dates. Having a defined pre-approval timeline may help with the internal expectations for third party lodging.

- Internal review of the NC State Internal Policy, including a study of funding source and research purpose. Include the possibility of documentation of why the third party lodging is specifically needed for research purposes under section 2.3.3.
  - UNC-Chapel Hill link for comparison
  - ECU link for comparison

- Request that OSBM review and possibly update OSBM Budget Manual Section 5.2.4 given the rise in popularity of third party lodging. Specifically request exclusion for research projects where the sponsor has approved third party lodging.

Suggested Project Timeline

Actions 1-3 are internal to NC State and should be completed by January 2025. Action

Item 4 will require additional consideration through OFA and a decision to request this action or not could also be completed by January 2025.

Resources Needed

- Involvement of NC State Office of Finance and Administration - Controller's Office, Budget Office
- NC State Internal Audit for risk assessment and audit guidance

Pilot Project #6 Travel System Updates and Enhancements

Challenge & Background

In our review of faculty frustrations with travel, discussions with the travel office staff in the University Controller's Office, and conversations within the Task Force, several current issues within the travel system were identified. As a public institution with a self-service travel model, we have many people involved in the transactions who are not travel policy experts. The "self-service" model of the travel system relies, for the most part, on travelers to enter their requests for travel, for travel payment, and reimbursements. Per data provided to the Task Force from Enterprise Application Solutions and the University Controller's Office, from July 1, 2024 through June 12, 2024 there were 24,249 travel requests entered, of which 18,997 or approximately 80 percent were entered by the traveler themselves. By asking our research travelers to be policy experts, we are reducing the amount of time they can spend on their research and proposal writing. This added administrative burden could be reduced by making modifications to the travel system.

- There is not a clear understanding of the roles and responsibilities of each user/approver within the travel system. For example, is the finance office in the department/unit/College approving that funds are available or are they also viewed as responsible for approving that all aspects are in compliance (this requires differing amounts of time in review)? Additional traveler and approver-focused training or chat bots may also be helpful to the process. (AI/Chatbot possibilities and pilots are included in another recommendation.) Training on all travel needs at all levels should occur. A clarification of the required approvals is needed. We received feedback from our surveys that too many approvals are required for transactions.

- Items are often denied because they need to be redacted. This takes additional time and individuals don't always know how or what needs redacted. Campus initiators, travelers, approvers and central offices spend considerable time redacting receipts/invoices to remove account or other "sensitive" information from travel submissions as well as other items in the financial system. This includes wire information provided by a vendor on their invoice, credit card statements showing more transactions than the one pertaining to the travel, etc. This delays travel reimbursements and other processes for our faculty and causes additional administrative burden to ensure compliance. (Also see AI recommendation regarding redaction.)

- Currently, the travel system notifications are sent separately to the traveler, the approver, the supervisor, or others in the workflow approval. This separate email creates confusion and slows down processes because no one is aware of who received the notification or if someone else is responding. The only way to know if a travel audit finding has been resolved is to log in to the travel system and view the individual item. This delays travel reimbursements for faculty and causes additional administrative burden to ensure the matter has been resolved. In FY24 as of mid-June, there were 3,623 various notifications sent out to campus users.

- Non-employee/student travel is processed in a different manner than employee travel in terms of requirements and approvals. This is frustrating and requires our faculty and staff to understand a different and onerous, form-based process. This process needs to be integrated into the travel system.

- Reimbursements that have issues should be segmented so that approved and compliant expenses are reimbursed promptly and not held up because of issues. For example, a reimbursement that includes $800 airfare, $400 lodging, $65 mileage, and $150 food while in travel status might be held up or denied because there is a small discrepancy of $15 in mileage or a meal. If that occurs, it should be possible to approve a partial reimbursement for the items that can be approved, and not hold up a large reimbursement, in this example ($1400) over smaller amounts ($15). Most travelers would prefer a quick reimbursement approval for clear cut costs like airfare or lodging rather than denial or delay for smaller dollar amounts such as a meal or a few difference in miles. Then there should be a process for reconciling any remaining items with the traveler and the university after the larger items are reimbursed.

- A system that allows people to scan receipts from their phone directly into their expense reports

Furthermore, we suggest evaluating whether the self-service model is the correct model for the university. These models have reduced faculty and staff support in general across levels that have put additional burdens that while may seem small, add up to significant time and lost research dollars. To enter a simple travel reimbursement takes approximately 15 minutes of time for the average user. (That would not include any time spent if the TR was returned from the department, college, or travel audit office due to lack of information or questions.) Just the travel reimbursement entry equates to an average of $16.40 faculty time or $10.03 in staff time[1]. From a simple cost and time perspective, more staff assistance might be beneficial.

Specific feedback we heard about this:

- *“The administrative burden on the faculty is getting worse every year. I have been here for over 20 years and I have seen how much this has changed. There is no trust in the faculty anymore and often we are treated like we are trying to cheat the system.”*
- *“It seems there is too much reliance on PIs to do the administrative work. Since so much is decentralized, smaller departments don't have sufficient internal support and then things fall onto the PI. A centralized system which can handle absences efficiently would be important. I lost money because of such a problem. Of course, this also means that the university lost the equivalent overhead rate.”*
- *“Have someone overhaul the ridiculous AP104 and AP107 forms. Why are we asking people to fill out and SIGN forms in Excel?! No other reputable organization does this, and it is embarrassing to ask this of university visitors. And the forms are so confusing that no one can fill them out properly without consulting staff multiple times or getting the forms sent back due to mistakes.”*
- *“Provide clearer directions on what information is needed for travel to be approved and the necessary documents for the reimbursement be approved in a timely manner. Ensure the travel department has firm guidelines for the deadline to approve travel and reimbursements after being submitted.*
- *"Provide clearer directions on what information is needed for travel to be approved and the necessary documents for the reimbursement be approved in a timely matter. Ensure the travel department has firm guidelines for the deadline to approve travel and reimbursements after being submitted.”*
- *“Revamp travel approval/reimbursement system.”*

Project Description

- Develop modern style training from the role perspective (i.e. traveler perspective) to help them understand clearly what they need to do. Add clarified roles and responsibilities to the travel manual. This should include what each role approver is responsible for reviewing/approving. If it is feasible, link SARs to the roles automatically where possible. Additionally, as referenced in another project, AI tools may help with this.

[1] Staff time includes all financial levels including assistant deans of finance. Hourly rate would be lower when data is limited to processors. Data provided by UHR.

- Change the internal notification system to send the same email with everyone copied so it is clear who received the email (traveler, financial office, supervisor, etc.) Additional language to the notification should state please “reply all”. Add more verbiage to the email to help receivers understand how to reply to the email and instructions on what to do if they are not sure what to do.

- Automate or eliminate Document Redaction requirements - Use AI tools like Foxit Smart Redact to automate the redaction of documents. This will save time and ensure compliance with university policy requirements. Through this review, however, we have learned that our system can store sensitive information and that redaction is not required on the front end. Items can be redacted if and when they are pulled for a public records request. This is a substantial time savings across campus for multiple transaction types.

- Implement Chatbots for Travel submissions - As mentioned in the AI project above, the university needs to deploy a chatbot to handle travel policy questions as well as travel reimbursement submissions. The chatbot can provide instant answers and redirect inquiries to the correct communication channels, ensuring efficient and accurate responses, such as chatbase, intercom. The travel submission process can be enhanced by utilizing an AI/chatbot to step travelers through their reimbursement and reduce their use of the travel reimbursement form system. The chatbot that is used for license plate renewal through myncdmv.com was highly recommended as an example of an effective and time-saving chatbot. We have heard this specific comment multiple times. Employing a chatbox could also ensure that travelers are reminded of the items needed given their specific reimbursement.

- Review the current travel system to see if a new system implementation is required. We spoke with other system universities that use Concur and it is mostly highly regarded. We also recommend exploring emburse, Navan, or other comparable tools. If a new system is not going to be evaluated, at a minimum, add additional pop-ups when certain fields are selected to help remind travelers what they need to do. Simple examples:
    - Conference/workshop - on the reimbursement, pop up reminder to attach agenda
    - Conference/workshop per diem - reminder to reduce any meals provided by the conference
    - Personal travel on the authorization - remind them they need to get airfare comparisons

    - Driving vs flying authorization - remind them they need to get airfare comparisons

Suggested Project Timeline

Travel notification changes and redaction requirement elimination (or automation) should be completed by January 2025. Additional recommendations are also a part of another pilot recommendation where it was stated that a work group should be established as soon as possible to pursue the recommendations and identify which additional university operations and processes would most benefit from AI-assistance tools and to develop an AI-assistance tool development and implementation plan; an initial report back to the Chancellor, Executive Vice Chancellors and Research Implementation Task Force by December 1, 2024.

Resources Needed

- Involvement of OIT - EAS
- Involvement of OFA - University Controller's Office

Pilot Project #7: Research Support Position Creation and Hiring Efficiency

Statement of Issue/Challenge & Background

This project aims to identify and propose strategies for enhancing the efficiency in creating and hiring research support positions.

As previously mentioned, research activity at NC State has escalated significantly in the past 8+ years, and with that, a substantially increased need for hiring new talent and retaining talent on campus. Current HR operations and processes across campus are experiencing challenges in keeping up with the HR action demand and completion of hire actions without delays. The strain on the HR operations/processes and delays in hire actions have posed challenges for hiring the best-qualified talent available and can create setbacks on funded projects that threaten to jeopardize project successes

The Human Resources (HR) processes at NC State University, particularly those related to research support positions, have faced criticism for lacking clarity, transparency, and efficiency. Feedback from various sources— including open letters, recent faculty surveys, and Research Leadership Alliance (RLA) documents— reveals significant concerns:

- **Perceived Lack of Clarity and Transparency**: Faculty members have reported confusion and frustration due to unclear and opaque HR procedures. This issue spans various types of positions, including permanent roles, postdoctoral positions, fellowships, and visiting scholars. During the summer, research roles as well as Visa processes for foreign nationals add another layer of complexity which can be further complicated by lack of integrated communication between HR and OIS processes. For example, to hire or invite a researcher to NC State, the faculty member must work with college HR and OIS and college HR must manually pull together communications of where in the process a hire or invitation is by utilizing at minimum three independent sources that do not communicate with each other; PeopleAdmin, PeopleSoft and Global Home. This contributes to the complexity and lack of clarity and transparency of all the steps involved.

  An example that was submitted to the group: *“There needs to be more transparency with HR. The PI posting the job should be able to know where the job is in the process and what steps are happening during that time. Currently the department HR person knows when they turned it over to HR, but not what they are doing or when it will be approved. There should be a way for the PI (or poster) to be able to follow a job posting through the process and know where it* *is every step of the way and what is happening in that step and what the expectation is for moving it along. HR will tell you that it's 10 weeks from when you send them the posting to when you have a person in place, but that's a fiction. There should be clearly delineated people and turnaround times for all steps in the process."*

- **Cumbersome Approval Processes**: Both the University HR classification and compensation level, and the hiring processes are overly burdensome from a system and review perspective. For instance, Principal Investigators (PIs) have encountered delays and difficulties when their position requests are scrutinized or when their selected applicant decisions are questioned by HR personnel. Additionally, it is not uncommon for a position (new or current) to take weeks to get through the submission and class and compensation review process and posting. Then there are additional layers in the recruitment process that require multiple reviews by HR and OEO before interviewing and hiring proceed.
- **Inefficiencies and Bureaucracy**: The process for creating, recruiting, hiring, and retaining research support positions—particularly concerning salary and career progression—has been criticized as excessively bureaucratic and slow. Faculty members and HR professionals alike have noted that these inefficiencies hinder research progress and contribute to increased frustration.
- **Comparative Concerns**: There is a concern that NC State's HR policies and practices may be more restrictive compared to those at peer institutions and other UNC System schools, potentially placing NC State at a competitive disadvantage.

Some other specific comments we have received during the data gathering process:

- *"...Hiring a student worker takes weeks, hiring an employee months. People take other jobs in the meantime which results in delays in research. PIs need to fill in many forms for hire resulting in more delays. HR (college) and UHR have unclear requirements which change often. They try to have one or two more forms just in case someone needs one, creating more work for departments and PIs..."*
- *"Less red tape on hiring processes and again more transparency and efficient systems are needed in HR too. Ex. Hiring SHRA, EHRA, and a postdoc are different. How does one find this out? There needs to be one location or website where this information is housed. Each college has their own website and they do things differently. There needs to be ONE place for this at NCSU that each faculty member can go. Also when you onboard a new faculty this needs to be told to them."*

- *“From my personal experience, it takes an extremely long time to hire field technicians (often 3-4 months) and it just took me over 10 weeks to re-hire a postdoc that was already in the system.”*

Project Description

The inefficiencies in the HR process directly impact research activities at NC State University. The primary affected parties are Principal Investigators (PIs) and research faculty who experience delays and complications in securing research support staff. The challenges are evident in the following areas:

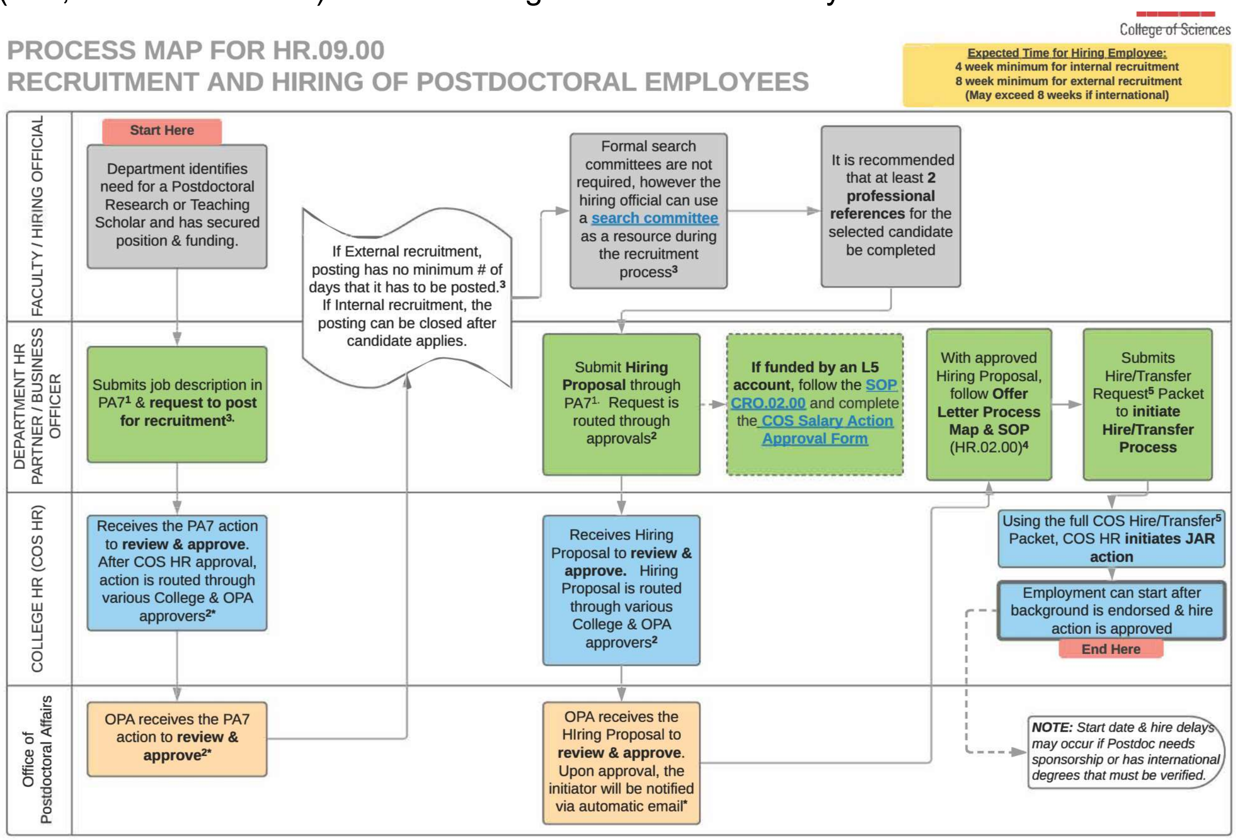
- Research Delays and Frustration: PIs report significant delays in research due to a lack of clear guidance and slow HR processes, which in turn affects their research productivity and morale.
- Navigational Challenges: New faculty members with grant support face difficulties in navigating the complex HR landscape to determine the appropriate type of position and hiring procedures (e.g., SHRA Research Support vs. EPS Research Support vs. Graduate Student vs. Postdoc). The absence of a clear, comprehensive roadmap exacerbates these challenges.

The task force consulted with Tim Danielson, Associate Vice Chancellor of Human Resources, and Margaret Erickson, Assistant Vice Chancellor of HR Total Rewards, who has experience with the concierge service model from the University of Michigan. The task force recommends exploring this model further.

Examples and References:

- The SHRA Competency Profiles for research positions are not available on HRNow as of August 2024, illustrating the challenge in accessing essential HR resources. The authors utilized UNC-Chapel Hill’s public website to obtain the competencies.
- As an example, this is a workflow of one unit to create and fill a research position.
- In FY24, there were nearly 730 job actions (29% were hiring actions) at the university in research non-faculty positions (SHRA and EHRA/EPS Only) that required submission through PeopleAdmin and Peoplesoft. While we do not have data available to provide an average time of processing for these specific actions, when we look at data for all non-faculty positions (SHRA, EHRA/EPS, and Postdoctoral Scholars) there were a total of 3,406 actions entered into Peopleadmin with an average of 17 day (on average, the PeopleAdmin process

at the college/division approval workflow steps took 7 days and 10 days for University HR) cycle time in FY24. For the same period, entries into Peoplesoft (hire, rehire or transfer) was an average of 24 calendar days.



Precedent:

- UCLA's Research Concierge Services: [UCLA FAQ]
- University of Michigan's Service Center: [University of Michigan SSC]

Recommendations:

Given the complexity and volume of the HR-related challenges, the following steps are recommended in order to identify improvements to the entire position creation to posting process to speed up and build transparency into the process:

- **External Analysis**: Engage an external consultant or expert HR team from other R1 universities to analyze current processes and assess how existing systems support HR functions. This analysis would be designed to identify bottlenecks across College and University HR units and recommend improvements.
- **HR Concierge Service for Research Support**: Consider establishing a concierge service tailored to research support positions. The HR Concierge Service is an opt-in service to address the growing needs of campus for solid and

stable HR transactional support. The HR Concierge would be an extension of the HR Service Center providing expert transactional HR support services working as a liaison with HR Centers of Excellence in providing customizable HR support services. The benefits of this concept could include:

  - Dedicated HR professionals providing consistent transactional support through continuous training, quality control, and expert processing for a wide range of transactional services.
  - Reduce or eliminate the burden for colleges/divisions to recruit, hire, and train HR support staff on an ongoing basis
  - Provide fluid end to end transactional service for campus

  This model should be carefully evaluated to ensure it addresses the root causes of current challenges without merely shifting the burden.

  - **Considerations**:
    - Does this service resolve the core issues with processes and systems or simply redistribute the workload? Highly recommend gathering data on improved efficiencies before making decisions to centralize services and/or add personnel.
    - Faculty and staff feedback suggests a preference against creating a centralized office, so early engagement with stakeholders such as the RLA, Faculty Senate, and the authors of the original feedback letter is crucial.
- **Classification and Compensation Subject Matter Expert (SME) Model Review**: Reevaluate the Classification and Compensation Model introduced in 2022 to determine its effectiveness and identify areas for improvement.
  - **Considerations**:
    - Assess whether the current Subject Matter Expert (SME) model can handle the workload efficiently and has redundancies.
    - Develop contingency plans for SME availability and ensure the model provides useful data on approval and classification challenges.
- **Standardize Approval Workflows**: Develop standardized research position approval workflows to streamline the process. For example, establish a set of "pre-approved" research positions with predefined descriptions, qualifications, and salary ranges.
  - **Considerations**:
    - Explore the potential use of AI tools, such as ChatGPT, for automating job grading and classification to expedite approvals.
    - Explore the use of waivers as a means to reduce hiring complexity and time, and provide faculty with pre-determined language to expedite approval

- **Support for Global Research Collaborations** both inbound and outbound to better support expanding global activities of research faculty. See 2022 KPMG report on global operations staff recommendations.
- **Training and Resource Development**: Provide comprehensive training materials to simplify the hiring process for research support roles. Focus on:
    - Permanent employees (SHRA or EPS)
    - Summer research scholars/fellowships

Suggested Project Timeline

It is anticipated that a 12-month timeline would be needed to accomplish the 6 recommendations identified for this pilot project.

Resources Needed

- Consultant Services: Engage a paid consultant or expert team from other R1 universities.
- Internal Resources: Dedicate NC State personnel to prioritize and implement solutions.
- Funding: Allocate budget for consultant fees, training materials, and any technology enhancements.

By addressing these issues comprehensively, NC State can enhance its HR processes, reduce delays, and better support its research community.

Pilot Project #8: Improving the No-Pay and Guest/Affiliate Status Process

Statement of Issue/Challenge & Background

The recent updates to NC State's no-pay guest/affiliate status process aim to enhance security and compliance for collaborative activities, particularly as the number of such requests has increased significantly. However, this new procedure has introduced complexities that can be challenging for faculty, especially in larger colleges with high request volumes and smaller colleges with limited staffing.

Key points to consider:

- **Increased Volume of Requests**: The substantial rise in no-pay status actions—from an average of 5,700 per year to nearly 4,500 as of August 2024 —indicates growing collaboration, but this also strains existing processes.
- **Lengthier Process**: The requirement for faculty to initiate and navigate a five-step process for no-pays that will be involved in research activity adds a layer of complexity, which may deter collaboration or overwhelm departments, especially those with fewer resources. Because of its complexity in process, this can be frustrating for our researchers and cause unnecessary delays in research productivity.
- **Visa Complications**: For international guests requiring visas, the collaboration process becomes even more cumbersome, necessitating coordination with the Office of International Services.
- **Impediment to Interdisciplinary Programs**: Given the University's goal of accelerating interdisciplinary program activities, onboarding outside collaborators to interdisciplinary projects through the current no-pay system creates unnecessary roadblocks to meeting project timelines.

Some specific comments we have received during the data gathering process:

- *"The process for bringing visiting scientists on board has become quite onerous and slow. That, paired with an unwillingness to approve for more than one year has made it undoable since my collaborators are scarcely approved before they are ended and I have to redo my submission. "*
- *"bringing in international scholars has become a huge burden, whether they come with their own fellowship or I am providing part/all of the funds. I want to keep my lab international, but it's getting harder because I am expected to be an expert on all the rules and policies myself, and to find my own solutions"*

Project Description

In 2022, in response to NCSU Strategic Goal #5 to improve university effectiveness through transformational technologies, cutting-edge processes and actionable data, OIT worked with primary stakeholders to develop a program charter for a Guest and Affiliate system to identify and track university guests and affiliates and manage their access to appropriate IT-based services. Out of this effort, a working group was formed to implement a new no-pay guest/affiliate status process that will expedite the process and reduce administrative burden across the university. This pilot project is designed to support ongoing efforts by the working group to ensure that it will be ready to deploy in June 2025 and will have access to user input and feedback to foster successful adoption of the new system.

Recommendations:

- **Accelerate Guest and Affiliate System Development**:
  - **Resource Allocation**: Allocate additional resources to expedite the development and implementation of the new Guest and Affiliate System particularly focused on research related requests, as they have additional process requirements overseen by the Office of Research and Innovation (ORI). Aim for a go-live date of June 2025, incorporating features that streamline request processing and access management.
- **Ensure User Inclusion**:
  - Invite several current users of the guest affiliate system, including faculty and staff, to join the working group. Their insights will be crucial in tailoring the system to meet user needs.
- **Policy Review and Simplification**:
  - **Internal Policies Assessment**: Conduct a thorough review of existing internal policies to identify overly conservative regulations that create unnecessary barriers. Simplify data access restrictions and clarify access requirements for guests and affiliates.
- **Assess Staffing Needs**:
  - **Resource Allocation Strategy**: Perform a detailed assessment of staffing needs in colleges with high volumes of requests. Consider assigning dedicated administrative support in ORI to manage no pay and guest affiliate research related requests end-to-end, and removing the need for college level HR involvement to assist in managing these requests effectively.

- **System Development Considerations**:
  - **User-Friendly Design**: Prioritize creating an intuitive interface for the system based on user feedback.

    - **Access Management Features**: Include features for streamlined request and approval processes, ensuring that users can easily request and manage access.
- **Testing and Iteration**:
    - **Prototype Development**: Develop a prototype of the system for initial user testing.
    - **Iterative Feedback Loop**: Use feedback from user testing sessions to make iterative improvements to the system.
- **Documentation and Training**:
    - **User Guides**: Create comprehensive user guides and training materials that can be used during and after the implementation phase.
    - **Training Sessions**: Plan training sessions for faculty and staff to familiarize them with the new system before its official launch.
- **Benchmarking Against Other Institutions**:
    - **External Policy Review**: Investigate streamlined policies and processes at peer institutions, such as the University of Washington. Adapt best practices from these models to enhance NC State's process.
- **Implement a Feedback Mechanism**:
    - **Continuous Improvement**: Establish a robust feedback system that allows faculty to share their experiences with the no-pay guest/affiliate process. Regularly analyze this feedback to inform ongoing improvements.
    - **Regular Meetings**: Schedule regular meetings with the working group, including guest affiliate users from outside entities, to discuss progress, challenges, and gather feedback.
    - **Surveys and Interviews**: Conduct surveys and one-on-one interviews with users to collect detailed input on their experiences and needs.
- **Develop Evaluation Metrics**:
    - **Success Indicators**: Define clear metrics to evaluate the success of the pilot project, such as user satisfaction, ease of access, and compliance with security protocols.
    - **Post-Implementation Review**: Conduct a review after implementation to assess the system's effectiveness and gather ongoing feedback for future enhancements.

Considerations:

- **Challenges of No-Pay Status**:
    - Evaluate how requiring no-pay status impacts collaborations, particularly for off-campus partners. Assess if there is a more efficient access process

that can meet security, and compliance needs without the burdensome steps.

- **Exploring Alternatives to HR/PeopleSoft Systems**:
  - Investigate the feasibility of an alternative system for managing guest/affiliate access that is more user-friendly and efficient than the current HR/PeopleSoft setup, and/or explore if the current HR/PeopleSoft systems can be better utilized.
- **Streamlining Layers Across Levels**:
  - Identify unnecessary layers in the approval and oversight process at the college, division, and central office levels. Aim to streamline these layers to facilitate quicker decisions and approvals.
- **Efficiency in Pay vs. No-Pay Processes**:
  - Explore how the processes for pay and no-pay affiliates can be aligned or made more efficient. Simplifying requirements could reduce the workload for faculty and administrative staff alike.
  - Implementing an "a la carte" system access could offer a flexible and efficient way for guest and affiliate collaborators to access only the specific systems and resources they need. This would allow collaborators to gain access to only the systems necessary for their specific projects, reducing unnecessary exposure to sensitive information.
    - Emphasizing the above point with an example, currently in the Plant Sciences Building, external collaborators need to request “no pay” status in order to sign into shared equipment available to all in the building and to access the non-guest wifi networks. The PSB was designed as a building intended to allow seamless integration between multi-stakeholder teams. In other words, NC State personnel and external collaborators work side by side in the same space. There should be a more streamlined, easier path to allow access to certain basic resources when access to more secured internal systems is not needed.
  - Conduct an assessment on the Background Check requirement of no-pays to determine whether the current requirement of background checks is overly restrictive as well as documenting allowable exception requirements (e.g. non-ncsu student no-pay status). Include review of how educational verifications are conducted particularly for Adjunct Faculty related to SACS accreditation purposes and J-1 visas where there may exist an educational requirement (e.g. Bachelors degree for Non-Intern J-1 visa holders).
- **Review Visa Processes**:

    - Examine the visa acquisition process for no-pay/guest affiliates. Identify bottlenecks and consider strategies for streamlining these procedures, possibly by establishing clearer pathways for international collaborators.

Suggested Project Timeline

By implementing these recommendations and considerations, NC State can create a more efficient, user-friendly system for managing guest and affiliate collaborations while ensuring compliance and security. This approach not only prepares the university for a successful launch by June 2025 but also fosters collaboration and buy-in from faculty and staff.

Resources Needed

- Ryan Bernarduci, University HR, indicated that an additional FTE for the OIT Security and Compliance team would be necessary in order for the guest and affiliate project schedule to be finalized by June 2025. This resource would be permanent to provide ongoing support in development/testing, maintenance and/or enhancement of new system processes.

Other Relevant/Related Documents

- Courtesy Appointments for Existing NC State Faculty/Staff
- Exceptions to Background Checks
- No Pay Appointments Working Group.docx
- charge memo.pdf
- University No Pay Working Group
- Project Charter - No Pay.docx
- **Guide to Unpaid/No Pay Appointments**: https://ncsu.service-now.com/esc?id=kb_article&sysparm_article=KB0020449
- **Sciences**: Copy of COS Hire Form for Unpaid Appointment - PUBLIC
- **Engineering** -
- 7_30_24 Dept Form for Unpaid Appointments.pdf
- Module 3 Three - COE Unpaid Affiliations.pptx
- **CHASS:** https://chass.ncsu.edu/intranet/human-resources/processes-and-forms/no-pay/

Pilot Project #9 Develop a "Culture of Reasonableness"

Statement of Problem & Background

In addition to the "culture of support" suggested by the Culture, Collaboration, and Communication Taskforce, we also need a "culture of reasonableness" to be implemented. We heard consistent feedback about how the policies themselves, as well as the interpretation and implementation of these policies, led to a culture of distrust. Most of the policies and concerns are a result of a few "bad actors". As a university, we've become so risk-averse that we spend countless dollars chasing minimal amounts and creating systems and processes (e.g. HR) that are overly burdensome and lack standardization for efficiency. A theoretical cost analysis shows that we could be spending potentially close to $70,000 annually chasing small issues for travel alone.

Total travel reimbursements FY24 (data as of mid June)	24,249	Reimbursements
Let's assume 50% of travels at some level are denied	12,125	Reimbursements
Of that, let's assume 65% are for faculty	7,881	Reimbursements
Assuming each denial takes 5 minutes minimum of faculty time to correct	39,405	Minutes of time to correct
Average salary of those faculty minutes	43,077	Salary for those minutes
Assuming each denial takes 5 minutes of staff time	39,405	Minutes of time to correct
Average salary for those staff 5 minutes	26,344	Salary for those minutes
Total cost of denials in processing	**69,421**	

Some examples of the concerns about reasonableness we received include:

- *"High rate of denial by travel audit for small details and inquiries (ex. why someone took an Uber to the airport instead of parking there, why they parked in a central lot rather than a satellite lot, or why taxi receipts do not include a map similar to Uber receipts). It is unclear who is setting the rules and why this level of scrutiny is needed."*
- *"The attitude of distrust from the travel office is a MAJOR issue. The default is "you're cheating and we will catch you". The worst part is that this applies to even the smallest amounts. I have a colleague who went back and forth with travel for several iterations because according to them his mileage was inaccurate by two miles (he had stopped for lunch on his way to a field trial). So, $0.70 in mileage caused probably >$100 in personnel time to process the reimbursement! Similarly, a student was asked to justify using an uber instead of parking at RDU.*

So her reimbursement was delayed and she was essentially shamed by travel audit for not owning a car."

- *"We are overemphasizing cost over efficiency to the n^{th} degree. I recently had an employee get a travel authorization denied three times. The travel office expected him to travel two 11 hour shifts (9 hour driving from Raleigh to Birmingham, AL plus a little extra for gas, bathroom, food, etc breaks) in a 36 hour period to save the $400 difference in flying back. The trip was needed to deliver valuable research materials that have the potential to generate upwards from $250K a year in royalties for NC State. More importantly, expecting an employee to drive that much in such a short period is not only a safety issue but also a labor law violation."*
- *"There are many, many examples of where we have spent hours going back and forth over less than $20. While we have saved on the travel (for something that was likely a misunderstanding and not a misappropriation of funds), we have wasted taxpayer funds on the back and forth. We have even heard examples of multiple back and forth conversations about amounts we were not trying to reimburse!"*

Other specific feedback heard:

- *"Work from all the leadership levels to change the mindset (or some) business support people from police person to being a key part of the research enterprise. They need--I want to help, can help, and will help attitudes--assuming, of course, that actual laws are not being broken."*
- *"shift admin and staff attitudes from a focus on being loyal to the rules and instead instill a sense of loyalty to the students and faculty."*
- *"The travel system should not be a communication system. Why not use email when further clarification is needed? Getting a rejection when more information is needed is not efficient nor does it create a friendly customer service culture."*
- *"Simplify and reduce compliance procedures. Every year seems to further restrict what can be done while increasing the compliance burden on PIs and staff, generating mountains of busywork in the process. I shouldn't have to write a page of justifications that a hotel stay wasn't an AirBnB because someone in the university thinks a hotel receipt on official company letterhead isn't sufficient justification. Staff shouldn't have to report on inventories of $1 USB keys for an NSF site visit months after the fact."*
- *"Culture of fear so staff over-analyze to ensure everything is perfectly compliant losing all sense of reasonableness"*
- *"...administrators view faculty (and staff) time as a free infinite resource that does not enter into any serious accounting of costs/benefits or pros/cons for*

alternative approaches to support and policy, and therefore does not factor in their decision making"

- *"The culture and leadership must change so that there is a basic level of trust that PIs are not trying to defraud the university (until proven otherwise, e.g., by failing an audit).*
- *"Stop being so afraid of auditing. I had to itemize and defend(!) $2 to $5 items. Have some price limit on itemization and get over it"*
- *"When I arrived at State, it seemed to me that grant administration services were being provided (as one might expect) to help me get grants and use them appropriately. At some point, there was a shift. The culture became focused on 'super-compliance' and I'm using 'super' here not to mean 'really good compliance', but compliance with something 'above and beyond' what the actual rules are. I understand that compliance is important and that there have been incidents here and elsewhere where researchers have gotten in trouble for non-compliance, with bad consequences for institutions. But still, if the culture of grant administration is to put obstacles in the way of what we're trying to do, rather than helping us to accomplish our plans and goals within the rules, we're going to waste a lot of person power and prevent some good (perfectly legitimate!) things from happening."*
- *"'Support services' should be supportive. A global optimum would be one where we don't lose sight of being on the same team. Many services are optimized to avoid audits (for example) rather than figuring out how to make life easier for faculty. I'd love to have more time to become a better teacher, read papers, pursue scholarship, meet with students, etc...but I rarely have time to do these things because so much time is spent being "nickel and dimed". I sympathize that those who are helping are likely short staffed, underpaid, and "doing their job". I just wish the approach / attitude was 'how can I help'.*
- *"Faculty work really hard to get grants and most of the time those grants don't provide enough funds to cover all expenses related to the proposed work. The last thing faculty want to do is waste money. There needs to be a higher level of trust that faculty are not being wasteful."*
- *"Not sure how to fix the problem, but why does 'FEAR OF BEING AUDITED' drive so much compliance and put such a burden on the faculty? I know of no other university where the administrative insecurity is so high. Admitting there is a problem may be the first step toward fixing it."*
- *"Change in culture such that the priority is to facilitate research, compliance and oversight are secondary priorities."*
- *"Currently, staff over-interpret regulations to make sure nothing is ever out of compliance, ever. The result is that everything grinds to a halt."*

Project Description

Aligned with pilot project #10 on policy review and clarification, review of what is actually required to be in compliance versus what is requested needs to be evaluated. Additionally, we recommend a de minimis amount that is acceptable in order to eliminate continued back and forth on travel denials. Building on our calculation example above, let's assume those same 7,881 errors on faculty travels. If there was a de minimis of $8.81, strictly from a cost standpoint, there is no savings to the university to deny those travels. We may be more in compliance, but $70,000 out of a $2.1B budget does not appear to be putting us at substantial risk. We understand that these calculations are purely theoretical; however, this use of "people time" resources needs to be analyzed against institutional risk.

Anticipated Project Timeline

Clarification on the travel manual requirements should be made by December 31, 2024. Units with more restrictive policies need to be evaluated to determine whether these more restrictive policies should remain. In many cases, we have seen local level "policy" requirements that are more restrictive because of pushback from travel audit that may have occurred years ago or once.

Resources Needed

- Office of Finance and Administration offices
- Internal Audit for Risk Assessment

Pilot Project #10: Policy Review Alignment with Requirements and Clarifications

Statement of Problem & Background

Throughout the review process, we often heard how we are more restrictive than other system schools, state and federal requirements, granting agency requirements, etc. In some cases, we identified that departmental units and colleges have more restrictive policies than required as well. Often these policies are based on historic issues identified through previous travel office (accounts payable) reviews so units have made their own clarifying policies. In other cases, the university seems to have interpreted/implemented policies more restrictive than necessary. This places additional and unnecessary burden on travelers, processors and central offices as well. No other pilots recommended by the travel sub-group will be of value until this pilot is done.

Specific comments that task force heard:

- *"Policy is open to interpretation, and it seems that the strictest interpretation is typically the default. We need staff to be focused on solutions."*
- *"Generate a high level task force to compare our business practices explicitly to actual governing laws and to the parallel processes at UNC-CH. This should include faculty (with appropriate release time) and administrators. We need to uncover what we actually need to do versus processes piled on due to unreasonable risk avoidance preferences at NC State."*
- *"Justify compliance procedures. My department no longer allows P-cards to be used to pay conference registration or other expenses for students, and I have to put hundreds or thousands on my personal cards and request reimbursement. I suspect that the reason is that compliance burdens imposed by the university overwhelm department staff and they don't have the capacity to deal with the additional overhead. There may be an excellent GAAP reason for this, but it's never been explained to me. The burden should be on the bureaucracy to justify new compliance measures to the faculty and staff, not the reverse."*
- *"'Don't think and promote overcompliance' seems to be the new motto of university administration. This happens on college level and university level with various offices. Departments seem to be too busy doing actual work to come with rules for the sake of rules. Travel reimbursements require details for PCard purchases which are 1) already in the system on the P-card side of mypack and 2) are not reimbursed, so they have no place in travel reimbursement. OIS requires forms to be filled out for family members not involved in any part of a given process just in case they are needed although there is a zero chance they will ever be needed. Generally, the approach seems to be 'if X is required, let's ask also for Y and Z just in case'. This love of overcompliance which permeated*

through the administration brings much burden to the researchers, detracting them from research and making them less competitive. Specifically identify and address overcompliance."

- *"If I had to guess, part of the issue is that NC State is so worried about getting audited and sued for some kind of mistake that we're obsessed with pre-approving and then extensively documenting how every penny is spent. But if we were not wasting so much faculty time, we'd have more grant dollars, more time for teaching more classes and collecting more tuition dollars, fewer dollars spent on staff hours, etc. We of course want to maintain our reputation as 'people who spent state funds responsibly', but our risk aversion is causing us to hemorrhage potential funds, while also giving us a reputation as a horrible university to work with. I have upcoming grant proposals where I should be the PI and the grant should be submitted by NC State, but we will probably instead do a subaward to NC State and submit with a different PI just because the NC State red tape is so impossible to work with. So I'd recommend that we adopt a less risk averse strategy, recognizing that some mistakes might slip through the cracks, but this will ultimately save time and money for everyone. "*
- *"Time is money. The amount of time faculty are wasting in menial tasks ultimately adds up to tens (if not hundreds) of thousands of dollars across the university."*
- *"Why do I need 6 approvals for a Pcard purchase at [College]? First I need to ask the research office for permission to travel with an overview of what I will need to purchase. Then I need to do TAs specifying what will be done with Pcard and what not. After the purchase, I need to fill out the Pcard reconciliation form. I also need to send a separate email to the research office documenting the whole travel and its relation to PCard purchases. Finally I need to do a TR and specify what was done by Pcard. This is of course in the context of already having a budget justification approved by the sponsor. Reduce the number of administrative steps for every procedure."*
- *"Conduct third-party review of all HR, travel, purchasing, and research management procedures. Identify and separate federal and state requirements from institutional policies. Rethink institutional policies - remove those that are adding undue burden on faculty and staff and don't serve a purpose beyond making an administrator's life easier."*
- *"It would be really helpful if the processes for research related tasks are streamlined to avoid asking for redundant information as well as back and forth between the department and college/university level supporting staffs. Take setting up a subcontractor as an example, I was asked to provide co-PI CV and the subcontractors were asked to provide budget breakdown, justification, etc. These were provided when we submitted the original proposal already. Similarly, when a new account is set up, we ask the PIs are asked to provide a breakdown*

consistent with how the university system categorize the spending categories (it might be departmental staff's responsibility but often he/she is not well trained or familiar with the project enough to do it, and it became the PIs' additional task). But a budget was already submitted during the proposal stage, why can't we have an experienced staff member at the university level to look at our budget, and populate the numbers? Similarly, account closeout has been a very long and painful process. Preparing large collaborative proposal is another example."

Project Description
Unit/college/central office policies and procedures, the travel manual, and other relevant policies need to be reviewed to ensure they are clear and not overly restrictive and do not place unnecessary burden on the university, faculty and staff. This review should include central offices, all levels of end users and faculty.

Anticipated Project Timeline
A review of college policies that are more restrictive is already occurring within Financial and Business areas with the ADFs and Finance Partners groups. Additional review and clarification of policies should be completed by June 2025.

Resources Needed

- Office of Finance and Administration units
- College/unit level offices
- Internal Audit for Risk Assessment

Pilot Project #11: Establish Councils for Two-Way Communication, Accountability, and Transparency

Statement of Problem & Background

There are large gaps in understanding and knowledge between central offices and campus end users. There need to be better ways to communicate "across the transom" and this is also evidenced in the Culture, Collaboration, and Communication Taskforce report. We heard broadly from faculty and staff that their voices and concerns are simply not being heard or even requested. This is also evidenced in the open letter, RLA letter, and multiple surveys. This perceived lack of being heard has caused massive frustration and morale issues that have the potential to cause substantial disruption within the university community. Most venues that do exist now are top-down in nature and do not establish two-way mechanisms for communication, accountability, or transparency. In many cases this has created resentment and distrust.

Some specific comments we have received during the data gathering process:

- *"'...One possibility would be to have more feedback (from faculty) to support services so there is a bit of a 'customer service' element….Another could be to use the Research Leadership Academy for advice. This might sound silly but have an 'open house' where faculty could meet staff …There is often a missing human element in such services."*
- *"Find ways for all levels of the administration (Contracts & Grants, HR, Facilities, Planning, Registration and Records) to have genuine dialogue with the faculty…This requires an attitude shift on the part of the administration and must start at the top."*
- *"….all of the places that seem to be the greatest sources of the problem (controller's office, HR, travel office) exist inside a black box. Until the system is aired out and opened up, I really can't offer any ideas. ….lost…any kind of personal relationship that could be developed between faculty and support staff and administrators. Every time that I've run into an intractable problem with funds, travel, or whatever I have wished that I could just go talk to the person who seems to be the hold up. Instead I have to wait and wade through forms and emails and never get a straight answer out of anyone…So maybe my suggestion is to make the people involved more accessible. The other, and I have no idea of how to do this, is to shift admin and staff attitudes from a focus on being loyal to*

the rules and instead instill a sense of loyalty to the students and faculty. The best way that I can explain this is that I work regularly with different liaisons at [college/unit]. For years, our college liaison was always ready to work with us to understand particular student needs and help find a solution, if possible, to support the students. About two years ago, a new liaison was hired whose answer to every question is to quote the graduate handbook or university policies. This new liaison seems to be more committed to those rules than to helping solve problems faced by students. I'm not looking for someone to break rules. I'm looking for someone to help solve problems."

- *"There needs to be faculty and staff oversight of research administration platforms, policies, and procedures. One way to do this could be to harness the existing Research Leadership Academy for the faculty side. For the staff side, please ask them how they would like to provide oversight, as I am sure they have excellent ideas that stem from working with the internal systems."*
- *"Policies and budgetary decisions should be discussed with faculty before implemented. Faculty needs to have a seat on the table when it comes to University AND college-wide decisions. That could be accomplished through increasing seats of faculty on existing committees and boards, and by creating new boards that for example discuss policies before implemented...Generally, NCSU is putting way too much emphasis on shiny new project, while the normal faculty is deprived in funding, F&A allocation and administrative support. Those kind of decisions (e.g. putting money into new buildings, while not being able to restore old ones) have been made largely behind 'closed doors' without faculty participation. "*
- *"Listen to the faculty and trust the faculty. Let the faculty play a critical, leading role in forming practices and policies regarding administration. The top-down approach just does not work. Most faculty have attended, done postdoctoral research, or been faculty at other successful universities, and we know how the university's administrative processes could be improved. Most importantly, what seems to be lacking is general administrative will to do the hard and sometimes unglamorous work of fixing the real internal problems. NCSU seems to be very outward-focused. Faculty are expected to be foot soldiers with no real voice in policies. That is an untenable approach."*
- *"Decisions come down from the top layers of management and administration with NO INPUT from below. This has to change. People who do the work need to have a seat at the proverbial table."*

Project Description

Establish a "Financial Advisory Council", "HR Advisory Council" and others as appropriate that include central office constituents as well as faculty, college/2 digit

OUC processing staff representation, research staff, and central staff representation. The intent of these Councils is to promote active two-way communication, accountability, and transparency across the functions within NC State. Currently much of the representation in decision-making is central office heavy with little opportunity for end-user, faculty, researcher, and student input. This would also include the potential need for “sub-Councils” with input from specialized groups. Leadership should be shared and decision-making should not be done unilaterally by central office personnel. Building two-way communication, accountability and transparency is critical.

These councils could also help shepherd the pilot projects and ensure all voices are being heard for implementation as well as evaluate/suggest other projects going forward.

Anticipated Project Timeline

This council or councils should be formed by November 1, 2024. We suggest representatives from the various Research Task Forces be included or be asked to recommend who should serve on these councils.

Resources Needed

Personnel commitment; culture shift

Pilot Project #12 Policy Review and Comment Period for Campus

Statement of Problem & Background

Policies and procedure implementation at NC State has a tendency to focus exclusively on central offices with little official input available for campus constituencies before implementation occurs. Current processes at NC State allow for policy changes to happen in ways that do not involve campus constituencies that may be directly affected by the change.

Some specific comments we have received during the data gathering process:

- *"'...establishing regular opportunities for faculty to provide feedback on major research-relevant policy changes and their potential consequences BEFORE policies are finalized, such as RA fees that have to be paid by students or Google Drive storage quota limitation of 15G per student and 100GB per faculty."*
- *"Every new administrative rule, many of which are stifling efficiency and academic performance, should be a subject of faculty feedback and public evaluation before being put in place. Compliance cannot and should not be used as an argument of increasing bureaucratic load. All present compliance rules and procedures have to be re-evaluated."*
- *"Need to provide feedback before major research policies changes are finalized, in particular if those are impacting the normal research activities."*
- *"We need a cultural shift in the direction of administrative processes as a means to end, not the end itself. e.g., if we are trying to hire someone the primary goal is to hire them, if we need to issue a subcontract then the primary goal is to issue the subcontract, if we need to receive an email then the primary goal is to receive the email. I understand there are additional goals such as protecting the university and making paperwork efficient, but these are secondary goals. This cultural shift can only be brought about by leadership at the top of the university. I suggest success metrics that reflect primary goals."*

Project Description

There should be expected cycles of policy and procedure review with stakeholders (those who have a named or inherent responsibility in the policy) and end-users (those campus individuals that would look to the policy or procedure for guidance). Policy or procedure changes should be done only with red-line versions or should include all key changes in a summary format. Policies and procedures should then be reviewed by a

Steering Committee to include students, faculty, staff and administrative units with impact or expertise in those areas. Following review by the Policy Steering Committee, policies should be distributed for Campus Open Comment for at least 14 business days. Once these steps have occurred then policies/procedures should undergo final review by Cabinet and shared with the Chancellor for approval. At any step in the process, a substantive change may result in the policy going back one or more levels for additional review and feedback before proceeding in the process. All policies, procedures, manuals, etc. should undergo this process. Critical steps to be included are assessment of additional workload, available personnel to perform the work, risk assessment, funding, and compliance needs.

Anticipated Project Timeline

Should begin as soon as possible

Resources Needed

Personnel time, change in culture

Pilot Project #13 Evaluate the possibility of implementing Federal Per Diem

Statement of Problem & Background

The need to review our travel reimbursement policies regarding whether we should change to federal per diem rates has been brought to our attention through both survey feedback and discussions with peer institutions. In a recent survey, faculty expressed frustration, stating that the current per diem system is outdated, resulting in personal financial losses from travel.

Conversations with peer universities within the UNC system further underscore the importance of this topic. UNC-Chapel Hill, for instance, adopted the federal per diem rate for all university travel as of March 1, 2023. Similarly, UNC-Charlotte also uses federal per diem rates for both meal and lodging reimbursements. A review of 12 out-of-state peer universities revealed that 10 are currently using federal per diem rates for meals and incidental expenses (M&IE) and/or lodging reimbursements while we are using substantially lower caps.

Federal per diem rates, updated annually, vary by location and season, allowing reimbursement rates to better reflect actual travel costs. In contrast, our current subsistence rates are lower than these federal standards. For example, our in-state daily meal allowance is currently $46.50, while the federal per diem for meals in North Carolina is $68. This discrepancy highlights the need for our institution to align with federal rates to better cover the actual costs incurred by travelers.

The experience of UNC-Chapel Hill provides further insights. Prior to March 2023, federal per diem rates were permitted only for federally funded travel. Following their policy change to adopt the federal rates, the institution saw a significant increase in travel-related costs. However, adopting federal per diem rates also reduces the administrative burden on faculty, especially those working on federally funded projects, as it eliminates the need for pre-approval to use the federal rate. Further analysis will need to be conducted regarding the budget impact on our university if we proceed with changing to federal per diem rates.

Moreover, aligning with federal per diem rates would ensure that our travel policies are consistent with those of peer institutions both within and outside the state. As research universities increasingly engage in multi-state and national projects, federal per diem rates have become the standard, particularly for institutions involved in large-scale research initiatives.

By adopting federal per diem rates, our institution would not only offer more appropriate reimbursement levels for faculty and staff but also streamline administrative processes, enhance competitiveness in attracting research projects, and align with the practices of leading research institutions.

Some specific comments we have received during the data gathering process:

- *"'Travel really needs to change and change quickly! We lose money when we travel because the per diem is ancient and the time it takes to get approval for odd things like 3rd party lodging."*
- *"Many times travelers have to pay more out of pocket than is allowable for reimbursement by per diem, and this particularly affects students and postdocs on travel."*

Project Description

The goal of this project is to evaluate the feasibility and potential impact of adopting federal per diem rates for university travel. It will examine how transitioning to federal per diem rates can align our travel policies with those of peer institutions within the UNC system and beyond. Institutions such as UNC-Chapel Hill and UNC-Charlotte have successfully implemented federal per diem rates, and most of our out-of-state peer universities have already adopted similar policies. The federal per diem rates are updated annually and vary by location and season, ensuring that reimbursement reflects actual travel costs, particularly in high-cost or out-of-state areas. To complete this project, the Controller Office may need to consider the following action items:

- Financial Impact Study for Different Policy Options: A budget impact assessment will estimate the costs associated with adopting federal per diem rates and project potential reimbursement increases, while considering administrative efficiencies from reduced pre-approval requirements for using federal per diem rate and employee satisfaction. Since universities may adopt federal per diem rates in various ways, different options will be analyzed based on NCSU's specific budget and needs, with calculations of the financial impacts for each. Collaboration between the Budget Office and the Controller's Office will be essential to ensure accurate assessments and informed decision-making.

- Stakeholder Engagement: Input will be gathered from faculty, staff, and financial officers. The travel office may meet with UNC peer institutions to gain insights into the changes and to understand best practices and challenges.

- Implementation Planning: an implementation plan will outline the transition steps, timelines, and necessary policy updates with assistance from the university IT department.

This project aims to provide a clear understanding of the benefits, challenges, and financial impacts of adopting federal per diem rates. The goal is to help the university make an informed decision that balances support for faculty and staff with budgetary considerations, streamlines administrative processes, and reduces the additional administrative burden by eliminating the need for special approval when using federal per diem rates for federally funded research grants.

Anticipated Project Timeline
One year

Resources Needed

- Input from the Budget Office, University IT, and Controller Office.
- Additional Budget needs

Reference
UNCCH Per Diem Analysis provided by UNCCH travel director.
NCSU Peer University Review completed by Allie, Ginger, and Maggie

The Task Force on Research Implementation was constituted of the following members:

Co-Chair: Amy Grunden, William Neal Reynolds Distinguished Professor, Plant and Microbial Biology

Co-Chair: Ginger Burks Draughon, Assistant Vice Chancellor for Finance and Administration, Office of Research and Innovation

Geoff Bock, Director of Operations, NC Plant Sciences Initiative, College of Agriculture and Life Sciences

Joel Ducoste, Associate Dean of Faculty Development and Success and Professor of Civil, Construction, and Environmental Engineering, College of Engineering

Cari Furiness, Assistant Consortium Director, Southeast Climate Adaptation Science Center

Allie Geng, Manager for Finance and Business Management, College of Sciences

Audrey Jaeger, Executive Director of the Belk Center and Professor, Educational Leadership, Policy, and Human Development

Maggie Merry, Assistant Dean of Finance and Administration, Poole College of Management

Susana Milla-Lewis, Professor, Crop and Soil Sciences

Sheri Renno, Assistant Dean of Human Resources, College of Veterinary Medicine

Research Administration and Support Services
Culture, Collaboration and Communication (3Cs) Task Force Report

September 30, 2024

Respectfully Submitted By the Members of the 3Cs Task Force:

- **Co-Chair**: Chris Mayhorn, Head, Department of Psychology
- **Co-Chair**: Ursula Hairston, Asst. Vice Chancellor for HR Strategy, University Human Resources
- Sharon Joines, Assoc. Dean and Professor of Industrial Design, College of Design
- Lucian Lucia, Chair of the University Research Council and Professor, Forest Biomaterials (Wood and Paper Science) and Chemistry
- Maria Mayorga, Goodnight Distinguished Chair in Operations Research and Director of Operations Research, Industrial and Systems Engineering
- Ginny Moser, Director of Research Administration, Integrated Support Service Center, Office of Research and Innovation
- Marielle Pocan, Assistant for Communications, Office of the Executive Vice Chancellor and Provost
- Nikki Price, Asst. Dean for Talent, Culture, and Human Resources, College of Sciences
- Melissa Edwards Smith, Director of Education and Campus Engagement, Office of Equal Opportunity
- Courtney Thornton, Assoc. Vice Provost for Strategy, Implementation and Communication, Institutional Strategy and Analysis
- Laurie Williams, Goodnight Distinguished University Professor, Computer Science

Executive Summary

The Charge: Identify NC State workplace strengths and challenges resulting in actionable recommendations to improve the operational effectiveness and sustainability of research administration and support infrastructure.

Overarching Problem: Various sources of data including the open letter from faculty, the Research Leadership Academy (RLA) survey with recommendations, and discussions with the Research Support Council (RSC) call for the "culture of oversight [to] be replaced by a culture of support" where faculty are seeking "a more transparent, efficient, and better-coordinated support system." The need for better communication and collaboration "between the different business offices" was a common theme.

Analysis and Findings: Multiple discussions between 3Cs members, with other task force co-leads and with Alyson Wilson, resulted in the realization that NC State's complex, decentralized, and inconsistent research administration and support practices result in significant communication, collaboration and cultural challenges.

Potential Solutions: To address each of the 3 Cs (Culture, Collaboration, Communication) we recommend acting on the recommendations provided in this report.

Recommendations: The following recommendations are suggestions reflecting core concepts that will require ample discussion and development to effectively implement.

- Commit to following through on the findings from the approved pilot projects.
- Develop a consensus definition of "culture of support" and universally apply it across the research enterprise.
- Implement quarterly meetings of the various faculty and staff research committees (i.e., URC, RSC, RLA) for combined discussions so that all stakeholders are included.
- Create a ServiceNow-like portal for the research community to send queries on research topics to a centralized clearing house where it can be triaged and sent to "experts" who can answer them accurately and consistently.
- Be intentionally more transparent in processes and decisions.
- Empower people (pre-award and post-award managers, HR reps, procurement/business officers) in positions where decisions are time-sensitive to be more responsive and help contribute to a culture of mutual collaboration/support.
- Find efficiencies for streamlining common practices and procedures while providing more nuanced assistance at the departmental level. Remove sludge by breaking down all steps of a process, including invisible ones; observing every

step and estimating the time on each; assessing customer experiences and barriers to inclusivity; and using the findings to improve the process (Varazanni et al., 2023).

- Focus efforts on problem solving rather than problem identification.
- Increase administrative resources and staffing where needed to provide more timely support.
- Reward continuous improvement efforts for current employees that serve in research roles (perhaps creating a special classification in the Pride of the WolfPack awards could highlight the importance of research and enhance employee morale).
- Make the research enterprise a model of what an excellent continuous improvement process should look like at NC State.

Research Administration and Support Services
Culture, Collaboration and Communication (3Cs) Task Force Report

BACKGROUND

On April 9, 2024, Chancellor Woodson charged three task forces under the leadership of Alyson Wilson, Interim Vice Chancellor for Research and Innovation, with presenting pilot projects for implementation by the end of FY 2025 and producing a report of findings and recommendations. The Culture, Collaboration and Communication (3Cs) Task Force submits this report of findings and recommendations for consideration and action.

The 3Cs Task Force met from May to September 2024 and utilized its members and the connections of the Office of Research and Innovation (ORI) to obtain feedback from faculty and staff representatives serving on the Research Operations Council (ROC), Research Leadership Academy (RLA), the Research Support Council (RSC), and the University Research Committee (URC). At least two signatories, active with the original open letter to the chancellor, also shared feedback and engaged in discussion with the task force co-chairs. Moreover, we also evaluated emails received at the RASS (Research Task Force Feedback—rass-feedback@ncsu.edu) address. This input process documented in the appendix below was critical in helping the task force connect with the NC State research community and target key matters relating to existing communication gaps. There are certain ideas and beliefs that were repeated across groups and should be vetted across the university research community. These concepts are as follows:

- Communication is a commonly recognized obstacle across the RASS processes
- There is no defined or mutually agreed upon “culture of support”
- The dominant drivers of the work focus on risk mitigation and compliance, not comprehension, problem-solving, or support
- There is a lack of consistency across the university related to how research support is handled that works to degrade accountability
- Poor communication often results in the erosion of trust within and between academic units

FINDINGS

As we began working with the other task force (Sponsored Programs and Research Implementation) co-chairs, many of the same topics arose. Although it should be noted that these other task forces focused on more granular approaches to existing procedures that resulted in more concrete recommendations, it is important to consider that the 3Cs pervade all of these issues. For this reason, we recommend that ***all actions*** implemented from this task force exercise first consider communication and transparency as an essential requirement rather than as an afterthought. Moving forward, such a consideration should aid in transforming our research culture from compliance-oriented to one of collegiality and problem-solving. Such action would likely facilitate research success, employee engagement, and begin to repair the trust that has been damaged.

The three focus areas of this task force are divided in the following sections to provide an example of the task force's findings and a potential solution to address the concerns. A full list of recommendations is provided later in this report.

Culture

All of the groups that provided information to the task force mentioned that the research support community seems driven by compliance instead of actual support of the research initiatives. For instance, one task force member related how she has observed an increasing trend to "validate centrally" on issues where there is uncertainty (e.g., third-party travel) and this unnecessarily slows the workflow between units. While compliance as described at https://compliance.ncsu.edu/ is a needed and essential component in research administration at NC State, arguably it should not be the main focus. In conceptualizing the characteristics of cultures driven by compliance versus support, we generated the following descriptors to drive discussion:

<u>What does a "culture of compliance" look like?</u>

- Fear of institutional risk is in the driver seat.
- Inefficiencies and "pseudo-rules" are tolerated, and potentially encouraged, in the name of risk avoidance (i.e., "validate centrally" as described above) that slows workflow.
- Input is uninvited. Ideas for process change / improvement are unwelcome.
- Trust is low in all directions.
- People work around the system instead of working with it.

<u>What does a "culture of support" look like?</u>

- Excellent service is in the driver's seat.
- Process continuous improvement is intentional and desired. Pain points/"sludge" are identified and removed.
- Workflow is quickened.
- Trust is high in all directions.

Given these contrasting views, we believe (with support from the information sources documented in the appendix below) the perceived lack of transparency in decision making and miscommunication of procedures breeds a culture of compliance, distrust, and discontent. This manifests itself in different ways depending on the unit. Some research units work well, but many others are struggling. Some units have strong research teams but seem to separate the research support staff from inclusion such that a divide is created in the overall administration of a grant project. In this manner, it is not uncommon to observe adversarial interactions between faculty and staff that detract from our productivity as a research university. There is no definition nor consistency to what support for research actually entails and as a result, it varies across colleges and departments.

Solution: Establishing a common understanding and elevating a goal of a support-driven research community could help break down silos and open the space for a desired culture shift that proactively works towards collaboration and innovation. As we learned from Mary Cole Pike, Executive Director of Public Relations and Chief of Staff at University Communications, cultural changes often take time (several years) so it is imperative that we begin implementing our efforts as soon as is reasonable.

Collaboration

A common theme from task force information sources expressed a lack of transparency across units that need to collaborate, which fosters a lack of trust. Both faculty and staff shared anecdotal stories of receiving conflicting information, experiencing unexplained pushback from those in roles across the aisles of what they are doing (e.g., researcher receiving pushback from research support roles, and support roles receiving pushback from principal investigators), or leadership changing the deadlines, timelines, or milestones seemingly without faculty consultation. These situations break down relationships and sow seeds of distrust which carry over into future interactions and projects. As one task force member mentioned, feedback from central offices following budget requests or HR actions often provide insufficient details to describe why it was approved or not approved. Better (and more timely) feedback could provide critical information to guide future submissions such that expectations are made clear. This problem is exacerbated further because the decentralized model means that different colleges (and even departments within a college) use different processes for similar functions. Sometimes the difference in processes reveal efficiencies. And sometimes it reveals gaps and delays. Both of these contribute to miscommunication across the university.

Solution: Standardization of workflows and processes could help increase efficiencies, mitigate gaps, and align communication across the university. But it is equally important to recognize that standardization does not mean it is a requirement or regulation. It can become a way to revisit and rethink functions that are not working well. Pre-award and post-award managers need to be in the room with the research teams including HR and relevant finance professionals routinely to improve collaboration. These discussions should happen before the grant submission. For instance, a faculty principal investigator (PI) might intend to hire a laboratory manager and work with a pre-award specialist to develop a proposal budget. This often occurs without the input from a human resources specialist who has knowledge of pay scales and duties associated with a particular job title. If the proposal is funded, faculty are often surprised when they discover that the amount allocated in the budget may not be competitive in attracting job candidates. In this situation, early involvement from human resources could serve to educate faculty about hiring processes and reduce post award tensions.

Communication

Communication is a challenge across colleges, departments, and research support units. The Office for Research and Innovation (ORI) coordinates and convenes multiple committees (previously listed) to provide a voice for faculty researchers and administrative research leaders. However, faculty have expressed that these committees do not always address or represent their needs. Research support staff are often not represented. In addition, some faculty do not utilize their representatives to bring tangible concerns before the committees for consideration. From our own data collection with Mentimeter in May 2024 at the ROC meeting where the task forces were first introduced, we know that email is a dominant form of communicating important information such as instructions, deadlines, process or procedure changes, announcements, requests for additional information, etc. However, many people reported not reading the emails thoroughly or at all. People report receiving different answers to the same questions (i.e., inconsistent responses). The lack of standardization fosters differences in the processes that can lead to confusion, misinformation, and a general lack of clarity on regulations or rationale for certain procedural steps.

Solution: Developing and sharing a university-wide and commonly accepted method for distributing vital information and sharing important news, breakthroughs, and best practices can help improve the camaraderie and efficiency of the research culture overall.

AREAS FOR FURTHER STUDY

- University institutionalization of continuous improvement mindset - Several proposed pilot projects focus on excessive burdens stemming from software solutions, forms, and/or related processes (e.g., PeopleSoft, PeopleAdmin, travel authorization, third-party lodging). Faculty have raised some of these issues for a long time without seeing progress.
    - What are the factors de-incentivizing a healthier NC State's culture and thus preventing a focus on continuous improvement in this area?
    - What recurring institutional practices could NC State introduce to identify and prioritize challenges such as these and work to address them?

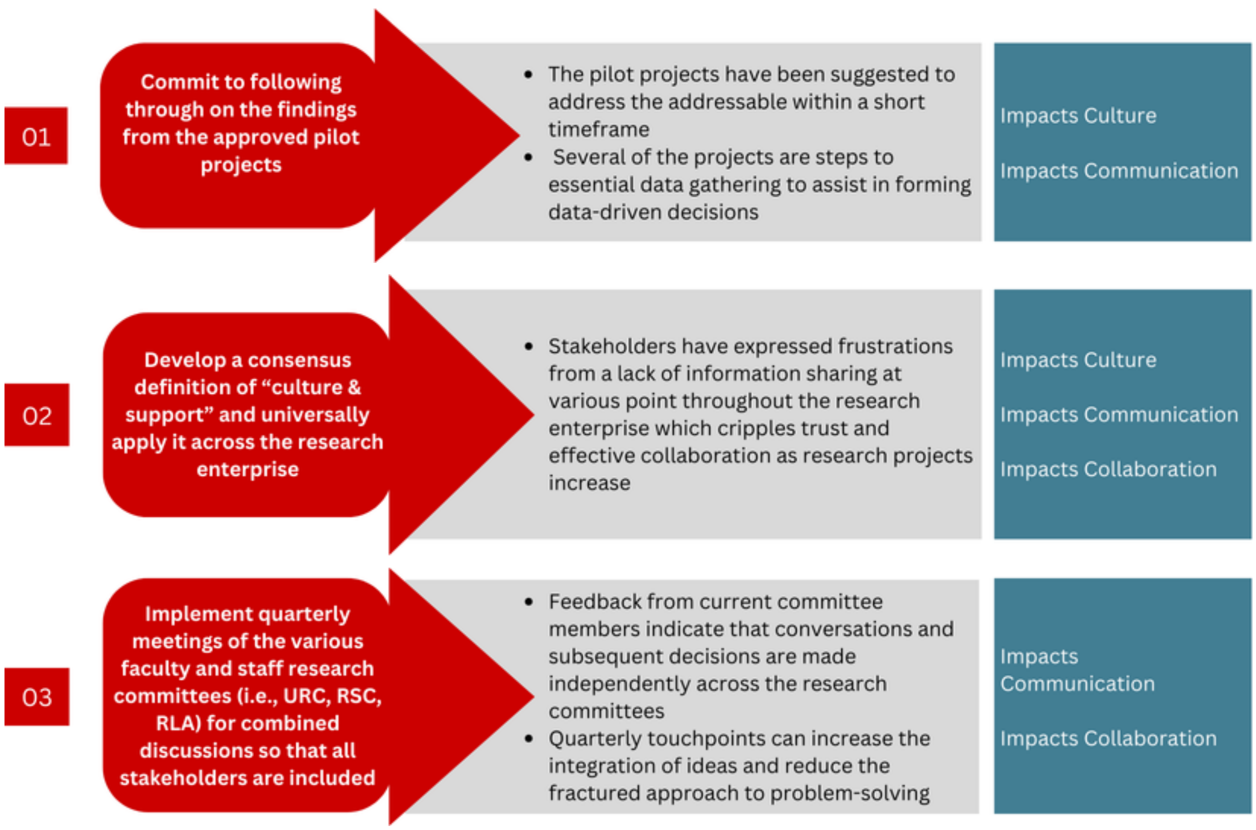
- Standardization of process- Several proposed pilot projects name decentralization of unit organization as a key reason why it is slower and harder to internally coordinate and/or collaborate on sponsored programs. Decentralization in its current form is a challenge to consistency and access.
    - What are the benefits and costs of decentralization and standardization? What would be most effective at NC State?
    - How do you provide more structure and consistency without increasing the perception of bureaucratic and compliance-centered protocols?
    - The University of Illinois, through their Operational Excellence initiative, developed a standard administrative operating model, with standard concepts and terminology, for use on their campus. The model applies not only to research support but also to other administrative functions.
    - NC State could benefit from the implementation of "sludge audits" defined by Sunstein (2022) as "excessive or unjustified frictions, such as paperwork burdens, that cost time or money; that may make life difficult to navigate; that may be frustrating, stigmatizing or humiliating; and that might end up depriving people of access to important goods, opportunities and services."

- Creating Culture of Support - The current culture is marred by an old and ongoing disconnect between research faculty and research support staff in various areas; a focus on mitigation of risk and compliance over information-sharing and collaboration; and low trust and inefficiencies resulting in people frequently working around the system instead of through it.

- How do we define and establish a common definition of research support with shared goals and responsible transparency?
- One approach to creating this culture begins with inclusive workshops that bring all stakeholders together to work as teams during a mock proposal submission process. For instance, faculty, research staff, human resources, and college facilities professionals could work together to engage in design thinking where the proposal process is de-mystified and obstacles to proposal planning and submission are overcome collegially as teams. It is likely that shared understanding of the different roles and responsibilities would result in enhanced transparency and improved procedural efficiency. While such an activity might be overwhelming for new faculty and staff members, it would likely be more meaningful to more seasoned employees involved in the research mission.

RECOMMENDATIONS

The following recommendations are suggestions reflecting core concepts that will require ample discussion and development to effectively implement. These recommendations will be informed by many of the areas for further study listed above.



04	**Create a ServiceNow-like portal for the research community to send queries on research topics to a centralized clearing house where it can be triaged and sent to "experts" who can answer them accurately and consistently**	• Feedback received indicates that research faculty and staff frequently receive inconsistent responses to questions • Responses vary based on the respondent who may or may not be fully knowledgeable • Creating a central repository for routine questions that offers timely responses would benefit the research community	Impacts Culture Impacts Communication
05	**Be intentionally more transparent in processes and decisions**	• Stakeholders have expressed frustrations from a lack of information sharing at various points throughout the research enterprise • Decisions are often deemed unvetted and inefficient resulting in feelings of poor support and being undervalued	Impacts Culture Impacts Communication Impacts Collaboration
06	**Empower people in positions where decisions are time-sensitive to be more responsive and help contribute to a culture of mutual collaboration/support**	• Pre-awards and post-awards managers, HR reps, procurement/business officers need to be able to work proactively instead of being in constant crisis and reactionary modes • Engage all the necessary voices earlier in the process to avoid roadblocks at the end	Impacts Culture Impacts Communication Impacts Collaboration
07	**Find efficiencies for streamlining common practices and procedures while providing more nuanced assistance at the departmental level**	• Remove sludge by breaking down all steps of a process, including invisible ones; observing every step and estimating the time on each; assessing customer experiences and barriers to inclusivity; and using the findings to improve the process (Varazanni et al., 2023)	Impacts Culture Impacts Communication
08	**Focus efforts on problem solving rather than problem identification (i.e., compliance)**	• Stakeholders bring forth complaints and issues but do not apply equivalent effort in collaboratively working towards solutions for the problems and issues identified	Impacts Culture Impacts Collaboration
09	**Increase administrative resources and staffing where needed to provide more timely support**	• As the rate of research project at the university increases, more people are needed to adequately support the research functions • Additional resources for integrated systems could also be identified	Impacts Culture Impacts Collaboration

An initial step towards following up on these recommendations includes conducting a survey to gather information from university constituents representing a broad spectrum of roles and perspectives within the research community. Such an effort would inform data-driven decisions using transparent processes. In the appendix below, we describe initial item development work intended to identify known and espoused concerns for commonality, common areas of process failures, and communication gaps as quantitative data rather than anecdotes to illustrate where process improvements can occur. By inviting a collective response instead of small group feedback like councils and committees, policy and decision making becomes more participatory thereby reducing the perception of senior administrators driving decisions from a vacuum or cherry-picking what they decide to identify as a concern. Such an approach will provide a visible opportunity for those who feel they have been silenced to share in the same open forum as those who have utilized other outlets to engage. Designating teams to address the issues described in the survey can help build buy-in for subsequently proposed solutions. Likewise, such a survey can be used to capture information needed to more clearly define what a “culture of support” really means to people. Following up with focus groups to further drill down and define this will help provide a critical foundation for rebuilding a trusting research community network using a shared vocabulary of indicators and measures. Implementing the research framework suggestion in Pilot Project #10 (fully described in appendix below internally as #1), will help establish common baselines for research activity (including administration and support functions) that anchor the work in the same fashion that the NC State Strategic Goals provides a framework for the majority of objectives and initiatives that are developed university-wide.

Consistent with Pilot Project #11 (fully described in appendix below internally as #3), this survey can also be used to help identify successful practices that are currently utilized within the university. In addition, reaching out to other peer institutions to identify best practices and create a resource that can be shared through the NC State research community will also foster process improvements and enhance communication by making good ideas and information more readily available across the research community. Thus, the implementation of Pilot

Project #11 will lead to the creation of a university-wide research resource of best practices that can expand into a central repository for information to be shared (a true feedback loop where information is given and received) and will help foster more responsible and timely information sharing. It can also help to establish a central point for timely and time-sensitive information sharing by housing these resources on a common platform (a well advertised central website, portal, etc).

Appendix: Documenting our Process leading to the Pilot Projects

Identifying a Conceptual Framework

Kraft et al. (2015) developed a systems framework to guide the University of Wisconsin health system effort to improve organizational performance involving “multiple interventions, which must be coordinated and sequenced to fit the specific context.” Drawing from health services, industrial engineering, and organization, they developed an organizational framework “to guide and evaluate improvement initiatives.”

Courtney Thornton initially identified this reference and the 3Cs collaborated to generate the following draft concept. It can be used to: (1) create an asset map for research administration services at NC State, (2) foster campus conversations on how each cell (i.e., stakeholders) defines “healthy”, and (3) serve to evaluate the comprehensiveness of the pilot ideas from our task force (and others) as well as to identify “gaps” in assessment.

	Change Domain				
Research Administration Level	**Strategic** (our goals and strategies)	**Cultural** (our norms, values and beliefs)	**Technical** (our information technologies, services and data)	**Structural** (our infrastructure for learning, adapting and continuously improving)	**Human Factors** (our people and the processes they use)
PIs					
Project/Award Research staff					
Department Research Operations Administration					
College Research Operations Administration					
University					
Environment					

Brainstorming: As a group, we generated 17 ideas for potential pilot projects and each task force member rated them based on feasibility and need. From these precursor ideas, we settled on three as described below.

*Development of **Three** Pilot Projects Submitted to Alyson Wilson, Interim Vice Chancellor for Research and Innovation on 7/1/24. All three original projects can be found [here](https://docs.google.com/document/d/1vO3h1cVduzXVVOWGJa-nZrznlHx-jajpyG43MJFEbrs/edit#heading=h.te3jobxrrsp1)* *(**https://docs.google.com/document/d/1vO3h1cVduzXVVOWGJa-nZrznlHx-jajpyG43MJFEbrs/edit#heading=h.te3jobxrrsp1**).*

Pilot Project 1: Focus Groups (eventually labeled Pilot Project #10 by combined Task Forces)

Courtney Thornton recommended the rough procedure that follows. Assemble focus groups of 6-10 participants, mixed by role (faculty, research administrator) and college / unit. Preferably in person. No more than 60 minutes.

- Define *research administration*.
- Define *culture* as “the way we do things around here” (Bolman and Deal, 2021).
  - o Intros - name / unit / how your role is related to research administration.
  - o How would you describe your overall experience of “the way we do things” at NC State when it comes to research administration?
  - o What existing features of research administration at NC State do you appreciate and value most?
  - o Imagine a university community that describes itself as having a research administration “culture of support.” What specific features do you imagine they might have in place?
  - o Other questions…..

Summarize themes / findings from the focus groups; share back with participants; offer means for them to quickly / easily signal level of agreement with the themes / findings.

From 3Cs initial discussion, it became apparent that our decentralized structure of research administration and support at NC State is relatively undocumented and there are vast differences in terms of faculty interests and funding agencies that drive workload differences within each college research administration office. Currently, data exist for dollar amounts and frequency of award by college but this does not accurately reflect workload. All three task forces could benefit from a “deeper dive” beyond “report running” where comprehensive data including transactions per award, sub awards, number of pre-award/post-award personnel (to name but a few metrics) could be combined. Deliverables will include a “profile” for each college that provides personnel allocation, process mapping, and a quantifiable measure of workload.

Pilot Project 2: Baseline data from colleges to explore workload intensity (eventually combined with other projects and labeled Pilot Project #10 by combined Task Forces)

Ginny Moser identified a number of data points that could lead to the creation of a quantifiable metric of college workload or “level of burden.”

- Counts of awards, or dollar amounts, are not a reflection of the complexity of managing various awards.
- Need some way to look at workload **intensity** for different types of awards, different times of year, etc.
- Is this a better proposal to come from one of the other groups? Or how could we focus this kind of data collection on 3C issues of focus?
- Types of data
    - Proposal and award (meaningful categories beyond counts)
    - Diversity in sponsors by college
    - Identifying personnel - can't ID research administrators by a particular HR code. Who do we count? 1 FTE, any FTE?
    - Transactions per award
    - Cost-share requirements, sub awards, etc.
    - Is college centralized or decentralized
    - # research administrators per college
    - Where do transactions originate and who originates them
    - Building a "profile" for each college based on key indicators like these

Given the diversity of expertise and workload by college, the 3Cs discussed what units might serve as case studies of success that could help us identify best practices. Anecdotally, Laurie Williams described high levels of faculty/staff satisfaction within the Department of Computer Science (CSC). Dr. Williams met with the research administration staff in CSC to document the factors underlying successful collaboration and she delivered the following tenets:

- <u>Know each other:</u> As the faculty and research admins work together, over time, they learn about each other's working style, build working relations, build mutual respect and confidence in each other which is very important in accomplishing tasks and getting things done.
- <u>Leadership's trust and confidence in the Sponsored Programs taskforce:</u> Ownership makes the difference. Everyone safeguards and nurtures what is their own. In the same way, by allowing research admins to own their projects and tasks, you are letting them be the owner of their projects. They will take good care of their own projects.
- <u>Liberty:</u> Liberty given to the team in planning and execution of their work and working conditions will give them some flexibility and keep them motivated.
- <u>Equal respect:</u> Faculty showing equal respect to the person managing their grants by providing them documentation they request from you, patiently answering their questions as they are trying to determine the best course of action in following audit safe practices will help them do the right work in a timely manner and stay compliant.
- <u>Communication:</u> Make your plans like going on a sabbatical, GRA or personnel hiring, travel, purchases and spending plans and communicate those plans to your C&G person in advance so the C&G person is aware and can help in doing what is needed for the grant in a timely manner.
- <u>Training:</u> Grant management (pre-award and post-award) is a very dynamic process as rules and policies, research terms and conditions are constantly changing at university and sponsor level. It is very important for the C&G taskforce to stay knowledgeable and keep up with these constant changes to stay compliant and follow audit safe practices. For this, it is crucial for the C&G members to regularly participate in related workshops, webinars and conferences. This gives them opportunities to meet and interact with PIs and other C&G people from different departments and institutions and share ideas, and challenges and discuss methods of dealing with such work.
- <u>Reward:</u> Opportunities given to them for their professional growth and development will keep them encouraged to continue to do good work and produce satisfactory results.

- <u>Understand and effectively explain the rules</u>: The relationship between the CSC faculty and the CSC research administrators is enhanced because the research administrator knows the various state, university, post-award and pre-award rules and regulations and can effectively communicate to the faculty why the rules exist and why they make sense. In turn, the faculty appreciates and acknowledges the research administrator's professional expertise and is willing to work with the research administrator to achieve the ultimate goals and objectives of the research project.
- <u>Respect the deadlines:</u> The CSC Research Administrative Staff is appreciative of the CSC faculty's respect for deadlines when it comes to pre-award and post-award deadlines, such as technical report deadlines. Meeting the deadlines help the faculty and staff to work harmoniously and avoid stress-related mistakes and attitudes.

Likewise, Ginny Moser mentioned that her interactions with the research administration team within the College of Education (CED) led to job offers to bolster the ORI mission. Ms. Moser talked to these former CED team members and inquired about what made them successful. The following observations came from this discussion:

- Weekly meetings with pre-award, post-award, and Associate Dean of Research (ADR). Kept each other updated and shared challenges.
- Weekly meetings with post-award team. Partly a team check-in (not 100% work-related). Discussed issues going on and shared how they were resolved, or came up with solutions together. This helped when a similar situation came up for someone else.
- We used "copy and paste" text/templates for a number of things so that we were always giving consistent information.
- We brainstormed ways of making things more efficient.
- Stephanie (CED team leader) tried to keep us updated on "big picture" issues from leadership.
- We helped one another out and bounced ideas off one another.
- Pre-award would often check with us when developing budgets, especially for unusual situations.
- We had a generic post-award email account that we asked PIs to cc their correspondences. This helped when someone was out of the office and for reference when someone left CED.
- Most of us had a pretty strong work ethic and wanted to do a good job. We worked way more than 40 hours per week and provided the best customer service we could while also being understaffed and overworked. (not that that is a good thing, but it did contribute to our success)
- Stephanie advocated for us to be allowed to work remotely.
- We received training from Stephanie and our colleagues, and were encouraged to ask questions and take advantage of professional development opportunities.
- Our leader (Stephanie) was trained, experienced, and able to point us in the right direction when issues arose.
- The fiscal managers had prior experience with general university bookkeeping (A/P, PCards, etc) and procurement, enabling them to work efficiently with those areas.
- For the most part, we were supported by our ADR. She wasn't always successful in advocating for us, but she tried.
- Trust and respect within our team
- Ms. Moser added the following-- I think it's helpful to have separate positions for pre-award and post-award. If a person is responsible for both pre and post, proposals and their deadlines always trump post-award financial management. It's important for those different positions to communicate, especially for pre-award to understand the

post-award implications of what they put in the proposal budget, but I think it allows for better post-award management.

***Pilot Project 3: Collect case studies to identify best practices for development of a toolkit/handbook** (eventually labeled Pilot Project #11 by combined Task Forces)*

We propose to identify other high performing groups within NC State and outside the university (e.g., UNC or Duke) to catalog best practices that can be communicated via inclusion in a toolkit or handbook that provides standardized approaches within the decentralized NC State environment. Anecdotally, a number of sources identified the Proposal Development Unit (PDU–https://research.ncsu.edu/rdo/pdu/) within the Office of Research and Innovation as a model for research communication and collaboration. The 3Cs discussion resulted in the realization that much could be learned from PDU and a centralized depository of best practices and standards can be created and tailored to meet the needs of each unit to facilitate team building. Analogous to the faculty reappointment, promotion and tenure (RPT) process, there are centralized rules and regulations communicated by the Provost to the colleges and departments but different units possess their own standards that must be considered.

Preparing for Cultural Change—Because any change implemented by the task forces will need to be communicated to all stakeholders at NC State, the 3Cs consulted with Ms. Mary Cole Pike, Executive Director of Public Relations and Chief of Staff at University Communications and Dr. Genevieve Garland, Senior Associate Vice Chancellor of Research Development and Operations.

Ms. Pike shared the following best practices with us:

- Think about your internal stakeholders as advocates/change agents.
- Develop and use a strategic communications plan.
- Consistency. Consistency. Consistency. (Message discipline)
- Balance transparency with information overload.
- Evaluate how the process is going, leave room for flexibility.
- Avoid knee-jerking to feedback.

Ms. Pike also educated us on the stages (Buy-In to Awareness to Acceptance to Commitment) experienced by stakeholders when they encounter procedural changes (example she used was Think and Do at NC State). Ms. Pike reported that the success of the Think and Do project took many years to be fully accepted.

Discussion with Ms. Pike focused on the following:

1. Can you identify leaders to help champion the message/leverage their voice?
2. Can you socialize the message first?
3. Keep it simple!
4. Email is still solid for faculty/staff; frontline staff do not always get daily emails; the sender matters; the subject line needs to grab attention
5. Sometimes people need to be heard. Stand up meetings can give others a voice.
6. Media relations team at UCOMM - research communications hub has research news; ORI (Genevieve Garland) is the contact on tactical research admin
7. To best utilize/implement the best practices - share the WIIFM (what's in it for me); show the benefits of the changes
8. Sometimes things are "new" not necessarily "right or wrong," just different

Dr. Garland discussed the function of ORI (Office of Research and Innovation) and gave us insight on how the University Research Council (URC) formed the Research Leadership Academy (RLA). Other topics addressed included:

1. Research week usually occurs in October (around Red and White Week) and this includes new faculty orientation.
2. The Research Support Council (RSC) includes College Resource Officers from each college who operate in administrative and operational roles to support associate deans of research. The Research Operations Council (ROC) includes the associate deans of research from each college and they fulfill a more visionary role addressing research challenges and direction.
3. ORI has a communications team that should play a key role in disseminating information and promoting transparency to the "public forum" of research at NC State.
4. The Enterprise Resource Administration (ERA) system was recently adopted to share information about updates and potential changes derived from the Improving Research Infrastructure task forces.
5. Dr. Garland will be releasing a "Best Practices" document to the URC in Spring 2025 but she emphasized that each college would be responsible for implementing these.

<u>Outcome</u> - On 7/5/24, all task force co-chairs met with Chancellor Woodson to propose pilot project ideas. **Ultimately, one pilot project (baseline data collection [#2 above] was combined with initiatives from the other task forces to create Project 3: Strengthen the Research Administration Workforce. The other two pilots [#1, #3] retained their status as independent projects identified as Project 10: Create a shared vision of 'culture of support' [focus groups proposed in #1 above] and Project 11: Collect case studies to identify best practices [case studies proposed in #3 above].** The eleven proposed pilot projects were published online at https://research.ncsu.edu/about/research-task-force/ on August 7, 2024 to facilitate transparency.

At the time of this writing, the NC State community is awaiting feedback regarding resource allocation and the logistics of implementing these pilot projects. Incidentally, one of the RASS feedback emails (received on Sept. 17, 2024) expressed support of the proposed focus groups project (#10) and stated, it "seems like one of the better ideas on the list to the extent that it would bring together aggrieved parties from all sides."

<u>Moving forward</u> - Near the end of July 2024, the task force co-chairs discussed the desire to collect more user data from the university research community by creating a joint survey that could be disseminated to a broad audience (possibly via the Institutional Strategy and Analysis group). On 7/24/24, each task force was asked to generate 5-10 questions that might be included on such a survey. Below, we list the draft items generated by the 3Cs:

Question	Question Type	Change Domain (Framework Category)	Research Admin Level	Submitting Task Force
What types of grants do you work with most often? Eg. Federal funds (NSF, NIH, DoE, DoD, USDA); State funds; private; foundations, etc.	General question			
Respondent Type (PI, Researcher, Staff, Research Support, etc)	General question			
What aspects of research administration (pre-award, post award, or other) have you experienced a college/division/unit do well? [culture] Please identify the units as you are describing your experience.	Open-ended	Technical / Structural	PI/Research; College/Div; University	3Cs
Who do you collaborate with to successfully overcome obstacles in research administration? (role/position) [collaboration]	Open-ended [can this be a forced selection set?]	Cultural / Human Factors	PI/Research; College/Div; University	3Cs
Please list research administration activities or processes where communication is clear and effective. [communication]	Open-ended	Strategic/ Structural/ Human Factors	PI/Research; College/Div; University; Environment	3Cs
How would you rate the current mechanisms for providing feedback, track status during the research administration process? [communication] (E.G.: RED portal, direct emails, 1-on-1 meetings, collaborative documents, other)	Likert Scale (option for providing comments)	Human Factors / Technical	PI/Research; College/Div; University	3Cs
In post-award, how well do you understand the nature and timeliness of the decisions made by your	Likert Scale (option for providing comments)	Strategic	PI/Research; College/Div; University	3Cs

research administration office? [culture] (E.G. helping in hiring, allowable costs and reimbursements, purchasing, etc.)				
Are there any specific guidelines or documentation that you think need more clarity related to pre-award or post-award? Please provide examples. [communication]	Open-ended	Structural / Human Factors	PI/Research; College/Div; University	3Cs
Would you be willing to contribute to a central repository of best practices and standards? [collaboration/culture]	Multiple Choice	Human Factors / Cultural	PI/Research; College/Div	3Cs
Are you willing to participate in a focus group related to improving research support?	Multiple Choice	Cultural / Human Factors	PI/Research; College/Div; University	3Cs

At the most recent meeting of the task force co-chairs with Alyson Wilson on Sept. 16, 2024, the need to "broaden the base of feedback" from the NCSU community was again acknowledged. Dr. Lucia, a member of 3Cs and Chair of the University Research Committee (URC) will share the concept of the survey with URC and the Research Operations Committee (ROC) this week to determine if this activity has their support. If support is apparent, the 3Cs and Alyson Wilson have agreed to approach the Institutional Strategy and Analysis group to facilitate the survey launch via Qualtrics and collaborate on subsequent data analysis. It is our belief that this inclusive, action-oriented approach should promote ownership of this process and address the recurring message that "everybody [includes faculty and staff in the research community] needs to be heard."

Continuing involvement of 3Cs members - At our last meeting held on Sept. 17, 2024, various members of the 3Cs expressed an interest in assisting with the implementation of future actions aimed at addressing the topics that arose in our task force discussions. As we learned during this process, we are all "on the same team" and hope to facilitate a more holistic approach to problem solving in the research enterprise at NC State.

References

Bolman, L. G., & Deal, T. E. (2021). *Reframing organizations: Artistry, choice, and leadership* (7th Edition). Jossey-Bass: A Wiley Brand, Hoboken, NJ.

Kraft, S., Carayon, P., Weiss, J., & Pandhi, N. (2015). A simple framework for complex system improvement. *American Journal of Medical Quality, 30*(3), 223-231.

Sunstein, C. R. (2022). Sludge audits. *Behavioural Public Policy, 6*(4), 654-673. https://doi:10.1017/bpp.2019.32.

Varazzani, C., Hubble, C., Galassi, A. Koromilas, E., Chan, S., & Trudinger, D. (2023, October 4). Spotting the sludge: Behavioural audits to improve public services across countries. OECD Observatory of Public Sector Innovation. https://oecd-opsi.org/blog/behavioural-science-spotting-the-sludge/