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# A SURVEY OF RESEARCH ADMINISTRATORS TO IDENTIFY AREAS OF ADMINISTRATIVE BURDEN IN FEDERAL RESEARCH GRANT MANAGEMENT

By

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A Dissertation in Practice

Submitted to the Graduate Faculty

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in partial fulfillment of the requirements

for the degree of

Doctor of Education

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This document, submitted in partial fulfillment of the requirements for the degree from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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Department	Educational Practice and Leadership
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Jessica Lynn Schiller July 13, 2022

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#### Abstract

Many processes in higher education are complicated by administrative burden and procedural inefficiencies. The federal government and research universities partner to advance science and technology, but the federal research grant process is criticized for its lack of efficient and streamlined procedures. Staff and faculty alike lament losing valuable time to bureaucratic regulations, cumbersome processes, and burgeoning reporting standards. As the cost of higher education is increasingly scrutinized, current procedures must be analyzed to identify areas of excessive administrative burden and redesigned to maximize efficiency. To address this issue, a Qualtrics survey was deployed to research administrators to identify areas of administrative burden in the context of federal research grant management. Two overarching issues emerged: the lack of consistency across federal grant management systems and processes, and the frequent changes imposed on federal grant management systems and processes. A manuscript will be generated from the findings to discuss these areas of administrative burden and to recommend methods to ameliorate procedural inefficiencies in federal research grant management.

*Keywords*: research administration, administrative burden, inefficiency, higher education, federal grants, grant management

# A Survey of Research Administrators to Identify Areas of Administrative Burden in Federal Research Grant Management

#### **INTRODUCTION**

Although research administrators voice concerns about areas of administrative burden in federal research grant management, there is a deficit of research and published literature that captures and classifies these concerns. The purpose of this dissertation is to highlight areas of procedural inefficiencies that research administrators encounter in the course of managing federally-funded research grants. Artifact 1 outlines the problem of practice by summarizing the existing literature on administrative burden for each stage of the research administrative lifecycle and includes some related concerns, such as funding inequities across institutions and the impact on the tenure process. Artifact 2 details the research approach that was employed to identify and classify areas of administrative burden as identified by research administrators, including which federal grant sponsors are associated with the most cumbersome practices and which grant management tasks are perceived to be the most inefficient. Artifact 3 explains how the findings of this study will be shared with relevant parties and used to advocate for policy change in federal research grant management.

#### **ARTIFACT 1: PROBLEM OF PRACTICE**

#### Introduction

University research expenditures total nearly \$75 billion per year, approximately \$42 billion of which is funded by federal grants (Kamensky, 2020; Mosley, Forsberg, & Ngo, 2020). Federal research grants are bound to a cadre of federal rules and regulations which are outlined in the Office of Management and Budget (OMB) publication titled, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards" (2020), otherwise referred to as "Uniform Guidance" or "UG." To avoid audit findings or bad publicity, institutions impose their own layers of policies and procedures, further encumbering the research administration process (Mosley et al., 2020). Faculty researchers (also referred to as "principal investigators" or "PIs") describe this layered framework of administrative requirements as "excessive" and "unnecessary" (Rockwell, 2009, p. 29). While some regulatory guidelines are necessary to provide accountability for taxpayer-funded research endeavors, the federal government and institutions must seek a balance between culpability and administrative burden (Leshner, 2008; Mosley et al., 2020; Rockwell, 2009). Failure to do so diverts PI time from research endeavors to administrative tasks (Mosley et al., 2020; Rockwell, 2009; Schneider et al., 2014), which can impair scientific progress and promotion opportunities, such as tenure.

The Federal Demonstration Partnership (FDP) is comprised of representatives from ten federal agencies and over 210 federal grant recipients (Federal Demonstration Partnership, n.d.). The mission of the FDP is to "reduce the administrative burdens associated with research grants and contracts" (Federal Demonstration Partnership, n.d.). The FDP surveyed faculty researchers about administrative burden in 2005, 2012, and 2018. Ninety-seven percent of respondents to the 2005 Faculty Burden Survey (note: the 2012 and 2018 iterations of this survey are referred to as

the "Faculty Workload Survey") asserted that project managers were capable of managing some of the administrative tasks associated with federal grants (Rockwell, 2009). A similar study by Mullen et al. (2008) found that 95% of surveyed PIs endorsed the notion that additional administrative support would alleviate some of their administrative burden and allow them to spend more time on research. When asked about the estimated impact of being provided with adequate project management support, 65% of respondents replied that this would allow them to devote three to four more hours of time to research each week, and nearly 20% of respondents believed this would liberate an additional seven hours per week for research (Rockwell, 2009). Similarly, Cole (2007) found that nearly 94% of PIs surveyed identified a reduction in administrative tasks, such as grant-related paperwork, as their highest or second-highest priority for research administrators.

In response, universities increased spending from their own funds by \$7 billion from 2010 to 2017 (Kamensky, 2020; Mosley et al., 2020) to expand research-related support. Research universities employ specialized staff to focus on the pre-award (proposal), contractual, research compliance, and post-award stages of federal awards, but this has not eliminated the administrative burden from PIs according to the Federal Demonstration Partnership (FDP). Although most research-intensive institutions employ these dedicated teams of staff that are designed to alleviate administrative burden from principal investigators (PIs), internal policies and procedures often require PI engagement in these processes. Some PIs may perceive the function of research administrators as a barrier instead of one of compliance and burden relief, which further complicates the process (Cole, 2007). The inadequacy of institutional infrastructure coupled with policies described as "cumbersome and redundant, time consuming,

fragmented, and unfriendly to users" (Mullen et al., 2008, p. 25) present further barriers to efficiency.

## **Purpose of Study**

The purpose of this study is to identify areas of administrative burden for research administrators. Although research grant funding is offered from federal, state, industry, foundation, and institutional partners, this inquiry will focus on federally-funded awards. Research administration staff were surveyed to identify areas of administrative burden across the research lifecycle to answer the following questions: Which federal sponsors are associated with the highest levels of administrative burden? What makes the grants sponsored by these federal agencies particularly burdensome? What recommendations do research administrators advance to ameliorate burdensome processes? How can this information be used to advocate for policy change and to inform best practices for the field?

#### **Definition of Key Terms**

To offer clarity about commonly used terms in federal research grant management, the following terms are defined using the explanations contained in UG (Office of Management and Budget, 2020) unless otherwise noted:

*Cost Sharing or Matching* – project-related expenses that are not paid by federal grant funds. These project-related expenses may be covered by institutional or third-party funding (§200.1). *Direct Costs* – project-related expenses that can be clearly identified and associated with a specific aim of a research project. Examples include salaries and fringe benefits for project personnel and supplies and equipment necessary to conduct the research (§200.413).

*Effort Reporting or Effort* – the amount of time committed to a research project measured in whole or partial months. It factors in work performed teaching, mentoring, in service, on

administrative tasks unrelated to the grant, and all research. It is calculated by multiplying the percentage of time spent working on a specific project relative to all work performed in that position by the number of months in a given period of performance. For example, if a PI devoted 25% of their position-related time to a research project over a 12-month period, their calculated effort would be 3.0 months.

*Equipment* – "tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds the lesser of the capitalization level established by the non-Federal entity for financial statement purposes, or \$5,000" (§200.33).

*Federal Financial Reports (FFR) or Financial Reporting* – sponsor required statement of expenditures charged to a specific research grant. Frequency of submission and level of financial detail varies by federal sponsor.

*Indirect Costs (IDC) or Facilities and Administration (F&A) costs* – costs that are not clearly and easily attributed to a specific federal grant, such as utilities, capital improvements, depreciation and interest associated with debt on buildings, salary and fringe benefits for research administrators, and general office supplies (§200.414).

*National Institutes of Health (NIH)* – division of the U.S. Department of Health & Human Services that is comprised of 27 institutes and centers. NIH funds in excess of \$32 billion per year for research, making it the largest public sponsor of health-related research in the world (National Institutes of Health, n.d.-b).

*National Science Foundation (NSF)* – federal agency that sponsors \$8.5 billion per year for basic research. Approximately 25% of federally-sponsored research at colleges and universities in the United States of America is funded by NSF. (National Science Foundation, n.d.-a).

*Office of Management and Budget (OMB)* – operates under the Executive Branch of the President of the United States of America to fulfill its regulatory, budget, policy, and management aims (Office of Management and Budget, n.d.).

*Participant Support Costs* – includes direct costs for trainees (non-employees) on a project, such as conference registration fees, conference travel expenses, stipends, and subsistence allowances (§200.1).

*Principal Investigators (PIs)* – individual(s) who are "designated by the applicant organization to have the appropriate level of authority and responsibility to direct the project or program to be supported by the award" (National Institutes of Health, n.d.-a). Used interchangeably with "faculty researchers," "faculty," and "researchers" in this paper.

*Subaward* – "an award provided by a pass-through entity to a subrecipient for the subrecipient to carry out part of a Federal award received by the pass-through entity. It does not include payments to a contractor or payments to an individual that is a beneficiary of a Federal program. A subaward may be provided through any form of legal agreement, including an agreement that the pass-through entity considers a contract" (§200.1; National Institutes of Health, n.d.-a). *Supplies* – items that are essential to the execution of research aims but do not meet the definition of equipment as outlined in §200.94, such as reagents, personal protective equipment (PPE), computing devices, glassware, diagnostic instruments, etc.

#### **Literature Review**

Per the Council on Governmental Relations (COGR), the federal government implemented 110 new regulations governing federal research grants between 1991 and 2018 (Kamensky, 2020; Mosley et al., 2020). The increasingly nuanced compliance policies are compounded by each federal sponsor imposing its own procedures and reporting requisites (see

National Science Foundation, FDP Prior Approval Matrix, 2020, for more detail), thus necessitating teams of increasingly specialized staff to manage them. The upsurge in guidelines do not increase research output or quality, and these cumulative burdens may ultimately reduce the competitiveness of the United States in the research and development global market (Mosley et al, 2020; Schneider et al., 2014). The Research Business Models Working Group (RMBWG) is an interagency committee formed at the behest of OMB and the Office of Science and Technology Policy (OSTP) and is charged with identifying and eliminating burden from the federal research grant process. This working group also recognized the urgency in regulatory burden relief, stating, "It is especially important to do so in cases where substantial and unproductive administrative burdens affect our Nation's scientists, thereby impeding the rate of scientific and technological advancement - and hence our National competitiveness" (Research Business Models Working Group, 2018, p. 1). Unfortunately, high rates of administrative burden continue to be reported even with support from research administrators. Schneider et al. (2014) stated that respondents to their 2012 FDP Faculty Workload Survey "reported a sense that the bureaucracy is so intense that they have lost the ability to focus on their research" (p. 89). Based on these findings, the most inefficient processes at each stage of the research administration lifecycle will be evaluated with the intention of offering a set of best practices to alleviate administrative burden for research administrators.

#### Key Inefficiencies at the Pre-Award Stage

The Pre-Award stage of the research grant lifecycle includes identifying potential research opportunities and submitting proposals to obtain external funding. Grant proposals to federal sponsors generally include a summary of the project, listing of resources and facilities available to the PI to successfully complete the proposed project, budget, budget justification, a

biographical sketch (also referred to as "Biosketch") for each of the key personnel identified on the proposal, letters of support for the project, and a list of Current and Pending sources of research support for each PI (ex: Office of Extramural Research, n.d.; National Science Foundation, 2020, June 1). In addition to the lengthy application process, which can exceed 60 pages or more for a single-PI proposal, each federal research grant sponsor has slightly different requirements for their proposals, causing pre-award research administrators and PIs to spend time researching sponsor guidelines. For example, National Science Foundation (NSF) Proposals require a post-doctoral mentoring plan if postdoctoral fellow (also referred to as "postdoctoral researcher" or "postdoc") pay is included in the budget. The Graduate Assistance in Areas of National Need (GAANN) grant offered by Department of Education requires institutions to outline how they will recruit qualified students from underrepresented backgrounds and commit at least a 25% institutional funding match to support students involved with the program (National Archives and Records Administration, Part 648.20, 2022 March 07).

On average, a new proposal takes 38 days to prepare, and a resubmitted proposal takes 28 additional days of preparation, but increase in proposal preparation time does not increase the likelihood of receiving a research grant (Herbert et al., 2013). The act of procuring a research grant has been described as "very difficult" (Mullen et al., 2008, p. 25). Numerous sources cite the low proposal acceptance rate, ranging from 20-25% (Herbert et al., 2013; Kamensky, 2020; Mosley et al., 2020; Schneider et al., 2014). Faculty researchers often apply for multiple grants simultaneously to increase the chances of receiving an award, so the act of submitting proposals represents a weighty time investment.

#### Key Inefficiencies at the Research Compliance Stage

The research compliance stage includes Institutional Review Board (IRB) review when a project involves human subjects, Institutional Animal Care and Use Committee (IACUC) review for studies utilizing animals, and Institutional Biosafety Committee (IBC) review for research using recombinant DNA and potentially hazardous biological agents, such as infectious agents or biological toxins. Rockwell (2009) wrote, "...if human subjects or animals were used in the research, then IRB or IACUC became the #1 administrative burden for that investigator" (p. 4), and a subsequent FDP survey by Schneider et al. (2014) corroborated this finding, writing, "For researchers engaged in projects that required human or animal subjects, the related IRB (Institutional Review Board) and IACUC (Institutional Animal Care and Use Committee) requirements were by far the most time-consuming" (pp. 6-7). Respondents to these surveys described the protocols as "unnecessarily lengthy" and cited inconsistencies between institutional requirements and federal sponsors as the primary drivers of administrative burden related to compliance (Schneider et al., 2014, p. 61).

In addition to the IRB, IACUC, and IBC protocols that must be approved prior to conducting research, PIs must ensure that Responsible Conduct of Research (RCR) and the Conflicts of Interest (COI) training requirements are met by all personnel participating in the sponsored research project. This includes postdoctoral researchers, graduate students, and undergraduate students. Due to the amount of time obligated to satisfy those requirements, these trainings were identified in the FDP surveys as among the most burdensome tasks (Rockwell, 2009; Schneider et al., 2014).

#### Key Inefficiencies at the Post-Award Stage

The post-award stage begins once a fully executed contract is received from a sponsor and the experiment is approved to commence by the research compliance team. This stage ends with the submission of final financial and scientific reports. This stage includes hiring, training, and evaluating of project personnel, effort reporting, managing project-related research expenditures, submission of annual financial and scientific reports, and data management, all of which were identified in the FDP surveys as among the most burdensome tasks (Rockwell, 2009; Schneider et al., 2014). A survey of PIs by Cole (2007) found that PIs desired more efficient financial reporting and access to more efficient purchasing for their research projects. Failure to complete annual financial and scientific progress reports in a timely fashion can delay incremental research funding, which can in turn precipitate delays in the progress of the project.

#### **Attempts to Mitigate Administrative Burden**

The 2005 FDP Faculty Burden Survey found that researchers spent approximately 42% of their time that was intended for federally-sponsored research on administrative activities (Rockwell, 2009). Similarly, the results of the 2012 FDP Faculty Workload Survey revealed that faculty reported spending 42.3% of their time on pre-award and post-award administrative tasks associated with federal grants instead of research (Schneider et al., 2014). Although several governmental initiatives were devised to address the undue financial costs and administrative burden associated with cumbersome regulations, few gains have been realized to date. For example, Executive Order 13563 (2011, January 18) was issued with the intention of identifying and implementing more cost-effective procedures across federal agencies while also evaluating and deploying more streamlined regulatory guidelines to reduce administrative burden. Highlights from this directive included:

As stated in that Executive Order and to the extent permitted by law, each agency must, among other things: (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor its regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt. (Section 1)

In December 2014, the OMB combined eight circulars into one resource of rules and regulations that govern federal awards. The purpose of this resource, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (UG), was issued "to reduce administrative burden on award recipients and, at the same time, guard against the risk of waste and misuse of Federal funds" (Office of Management and Budget, 2014). Unfortunately, individual federal agencies continue to impose their own regulations to govern their agency-specific grants, which is confusing and burdensome for grant recipients (Cole, 2007). Inconsistency across federal grantmaking agencies has been on ongoing source of criticism since the precursor to UG, the OMB Circular A-110, was issued clear back in 1976 (Myers & Smith, 2008). Despite this, there has been a lack of tangible progress in standardizing processes across federal departments.

In June 2016, the Report to Congressional Requesters issued by the United States Government Accountability Office reviewed these efforts and found, "Despite these and other federal efforts to streamline research requirements, universities and stakeholder organizations continue to cite increasing administrative workload and costs for complying with requirements" (United States Government Accountability Office, GAO-16-573, p. 3). Likewise, the results of the 2018 Federal Demonstration Partnership Faculty Workload Survey revealed the burden reduction did not materialize, and that the amount of time PIs reported committing to these administrative tasks *increased* to 44.3%. Research administrators echoed these findings, indicating that they spent "a disproportionate amount of time using antiquated processes to monitor compliance. Efficiencies could be gained from modernization and grants managers could instead shift their time to analyze data to improve results" (Office of Federal Financial Management, Office of Management and Budget, p. 3766).

Though not specific to federal research grants, in an effort to reduce administrative burden and to improve the impact of federal funding, Executive Order 13771 read:

(a) Unless prohibited by law, whenever an executive department or agency (agency)publicly proposes for notice and comment or otherwise promulgates a new regulation, itshall identify at least two existing regulations to be repealed.

(b) For fiscal year 2017, which is in progress, the heads of all agencies are directed that the total incremental cost of all new regulations, including repealed regulations, to be finalized this year shall be no greater than zero, unless otherwise required by law or consistent with advice provided in writing by the Director of the Office of Management and Budget (Director). (Section 2, 2017).

On January 6, 2017, the American Innovation and Competitiveness Act (AICA) became law (42 USC 1861, 2017, January 6). The expectations of the AICA were congruent with Executive Order 13711. The AICA required OMB and the OSTP to launch a working group to review existing research and development policies and to develop recommendations to streamline processes and to minimize administrative burden in federal grant management. The National Science and Technology Council (NTSC) is tasked with coordinating policies associated with science and technology across federal research agencies. As such, the NTSC convened in 2017 and assembled the Research Business Models Working Group (RBMWG). This workgroup compiled a series of recommendations in a report titled, "*Reducing Federal Administrative and Regulatory Burdens on Research*" (Research Business Models Working Group, 2018).

As of December 2020, two of the strategies recommended by the RBMWG were deployed: The use of Open Researcher and Contributor Identifiers (ORCID iDs) and increased usage of the Science Experts Network Curriculum Vitae (SciENcv) program. An ORCID iD is a unique digital identifier that PIs can affiliate with publications and grants that remains stable across changes in institutions and name (Office of Extramural Research, 2019, July 10). This system is capable of uploading information into other federal systems associated with federal research grants and aims to minimizes the number of times a PI has to enter professional data into grant applications and associated forms. As of October 1, 2019, NIH, the Agency for Healthcare Research and Quality (AHRQ), and the Centers for Disease Control and Prevention (CDC) require the use of ORCID iDs for all PIs supported by career development, research education, research training, or fellowship awards (Office of Extramural Research, 2019, July 10). At the time of the RBMWG meeting, the SciENcv system was used by NIH and the Institute of Educational Sciences (IES), and was being tested with NSF grants (Research Business Models

Working Group, 2018). As of May 1, 2020, SciENcv became an official NSF-approved format for its Current and Pending Support documents (National Science Foundation, n.d.-b). Since the adoptions of these tactics are relatively recent, it is unclear how much impact they have had on administrative burden. It should be noted that as of March 2022, SciENcv does not yet include NIH Other Support documents (SciENcv Help Desk, Personal Communication, 2022, March 3). While the intention of this system may be to reduce administrative burden, it currently stands as another example of using a parallel system and different form for tracking grant support for a PI instead of streamlining this process into one comprehensive system.

In January 2020, OMB posted proposed revisions to UG for public comment (OMB, 2020) as per 2 CFR §200.109. This mandates that UG must be reviewed every five years "to reduce recipient burden, provide guidance on implementing new statutory requirements, and improve Federal financial assistance management, transparency, and oversight" (OMB, p. 3766). As previously noted, the *Background and Objectives* section of 2019-OMB-0005 stated, "...grants managers report sending a disproportionate amount of time using antiquated processes to monitor compliance. Efficiencies could be gained from modernization and grants managers could instead shift their time to analyze data to improve results" (Office of Federal Financial Management, Office of Management and Budget, p. 3766). Two amendments to UG were implemented on August 13, 2020, with the remaining modifications going into effect on November 12, 2020 (Office of Management and Budget, 2020). The changes are touted as providing administrative relief by "requiring Federal agencies to adopt standard data elements for the information recipients are required to report" and "improving consistent interpretation" of the regulations (Office of Management and Budget, 2020). Due to the recent implementation of

these regulatory changes, it is too early to discern if a positive measurable impact on regulatory burden will follow.

#### **Barriers to Mitigating Administrative Burden**

Multiple layers of bureaucracy, including OMB, federal sponsors, auditors, and universities, encumber the research administration process. Inconsistent audit methods and interpretations of federal guidelines deter universities from adopting more flexible policies. As Mosley et al. (2020) noted, "There have been many attempts to streamline requirements by governing bodies, professional organizations, and grant recipients but they have achieved limited success to improve cost efficiency and performance outcomes. Moreover, even minor improvements have often taken years to be realized" (p. 11). The issue is not the lack of recognition of the cumbersome and inefficient processes governing federal research grants, but a lack of effective policy amendments to reduce or eliminate burden across all levels of governance as well as the commitment to doing so.

A recent example of increasing administrative burden is found with the new "Other Support" document required for NIH research performance progress reports (RPPR). Effective January 25, 2022, NIH began requiring a new format by which PIs would declare their current grant support as well as "in-kind" support, which means personnel or tangible items related to an NIH-sponsored project are financially supported by a third party. (Office of Extramural Research, 2021, March). Research administrators have expressed frustration about the spartan FAQ document associated with this new required format and the requirement that an electronic signature from the PI be included on each Other Support document. Since the Other Support document is a federally required component of annual NIH RPPRs, these changes have required

additional PI and research administration time to ensure compliance with both the content and the formatting.

### **Related Concerns**

#### **Inequity Across Institutions**

Ranking methodologies emphasize research productivity and related expenditures (Mullen et al., 2008). One frequently-cited measure is the Carnegie Classification of Institutions of Higher Education, often referred to as Carnegie or Carnegie rankings. Established in 1970, Carnegie published its inaugural rankings in 1973 (The Carnegie Classification of Institutions of Higher Education, n.d.-a). This system ranks institutions based on a combination of IPEDS data and research expenditures reported on the Higher Education Research Development Survey (HERD Survey) of the National Science Foundation (The Carnegie Classification of Institutions of Higher Education, n.d.-a). As defined by Carnegie, Doctoral Universities award a minimum of 20 research/scholarship doctoral degrees and report at least \$5 million in research expenditures through the HERD Survey in the ranking year. Within that category, Doctoral Universities may be designated as R1 or R2 institutions. The difference is that R1 institutions are deemed to demonstrate "very high research activity," whereas R2 institutions are defined by "high research activity" (The Carnegie Classification of Institutions of Higher Education, n.d.-b). The Carnegie system was not designed to indicate prestige level of an institution, but it is often misused in that manner (Mangan, 2022). Criticisms of the Carnegie classification system include methodology that "subjectively placed thresholds between institutions" (Harmon et al., 2019) and that Carnegie did not consider variables unique to HBCUs and therefore placed them at a classification disadvantage (Coaxum, 2001).

The disadvantages to the Carnegie Classification system present a ripple effect on non-R1 colleges and universities. Positive correlations between being awarded an NIH grant and future publications have been noted (Jacob & Lefgren, 2011). Similarly, a study by Bloch et al. (2014) found the majority of grant recipients they surveyed believed that the receipt of one grant led to additional grants or proposals, an increase in invitations to professional conferences and to become reviewers, and that the receipt of these research grants was vital for their academic careers. Holding an R1 Carnegie Classification is regarded as a means to facilitate the recruitment of faculty who hold robust research portfolios and possess dynamic teaching skills (Mangan, 2022), so PIs who demonstrate high research activity are more likely to be recruited by R1 institutions. Due to these systemic factors, faculty researchers at R1 institutions may receive externally funded grants more frequently, whereas their counterparts at non-R1 institutions may struggle to break the cycle of being left out of the federal grant awarding process.

To compound these issues, Rockwell (2009) stated that faculty at institutions that received less than \$10 million per year in federal research funding reported higher levels of administrative burden, which may be indicative of a lack of research administration support at those institutions. Rockwell also found that faculty at public institutions endorsed higher levels of administrative burden related to financial tasks, whereas faculty at private institutions experienced more administrative burden related to IRB and IACUC protocols, COI, laboratory safety, HIPAA, and chemical inventories. However, the indirect costs received from federal grants help finance research administrators and research accountants. This creates a cycle of having limited administrative support for grants, which may, in turn, diminish the likelihood of being awarded a federal grant due to the stringent application guidelines imposed by each federal research grant sponsor. It may be difficult for under-resourced programs to break this cycle.

In an attempt to offset administrative burden experienced by PIs, Kamensky (2020) and Mosley et al. (2020) noted that universities "increased spending on research by \$7 billion between 2010 and 2017" (p. 1). This represents an increase from 19 to 25 percent of total university research expenditures (Mosley et al., 2020). While this level of institutional funding may be feasible for universities with supple endowments, it may be prohibitive for universities with fewer fiscal resources. Junior faculty are often dependent on seed funding (also referred to as "start-up funds") to build their research programs and establish a lab that is competitive enough to receive consideration for external funding. Additionally, under-resourced universities may lack sufficient laboratory space, facilities, studios, and equipment for faculty to conduct robust or innovative research projects, which may further limit opportunities for external funding.

Fiscal and physical resources are essential for vigorous research endeavors, particularly among science and engineering fields. Competition for federal research dollars is intense, but the 20 top-funded research institutions received over \$11.8 billion in science and engineering (S&E) support, which accounts for one-third of all federal research dollars for S&E obligations in fiscal year (FY) 2017 (Pece, 2019, May). Similar trends were seen in FY 2019 as the 20 top-funded research institutions received over \$13.7 billion in S&E funding, or approximately 36% of the funds awarded that year (Pece, 2021, July).

During FY 2017, federal grant support to all Historically Black Colleges and Universities (HBCU) decreased by 17% to a mere \$308 million (Pece, 2019, May). Although federal S&E obligations to HBCUs increased by 3.8% in FY 2018 and by 7% in FY 2019, this only represents an additional \$12 million in FY 2018 and \$21 million in FY 2019 across all HBCUs (Pece, 2020, May; Pece, 2021, July). The 20 top-funded research universities received a collective increase of

nearly \$1 billion in FY 2018 (Pece, 2020, May), highlighting the inequities in distribution of research funding. For comparison, the top-funded research university, Johns Hopkins University, received over \$1.7 billion in S&E federal funding in FY 2017, over \$1.8 billion for FY 2018, and nearly \$1.9 billion in FY 2019 (Pece, 2019, May; Pece, 2020, May; Pece, 2021, July). This is double the amount received by the second-highest funded S&E program, the University of Michigan, and nearly five and one-half times the amount award to all HBCUs during this time period.

#### **Impact on Tenure Process**

Expectations for faculty have significantly increased in recent decades. Although differences exist across disciplines and institutions, generally speaking, faculty are expected to be responsive to students, adapt to and implement new classroom technologies, provide educational opportunities for their local communities, and to identify collaborative opportunities with peers both within and external to their organizations. Since many institutions are hiring fewer tenure-track faculty, those who are hired into tenure-track roles are tasked with additional service and committee demands (Cole, 2007; Kouritzin, 2019; Sorgen et al., 2020; Wimsatt et al., 2009). In addition, tenure-track faculty are expected to contribute to the scholarly body of work in their respective fields (Cole, 2007; Hu & Gill, 2000), which is casually referred to as the "publish or perish syndrome" (Cole, 2007, p.14). This often means obtaining externally-funded research grants to support the experimental and data collection processes.

Researchers cited a lack of institutional support, including an overload of teaching responsibilities and insufficient assistance available to submit grant proposals, as prohibitive to conducting research (Mullen et al., 2008; Walden & Bryan, 2010). Hu and Gill (2000) identified a teaching load of more than 11 hours and numerous service responsibilities as inhibiting

research productivity. Non-tenured faculty reported more administrative burden related to federal grants than senior faculty (Rockwell, 2009). Faculty are pressured to acquire externallysponsored funds for research to offset institutional costs, particularly at institutions that are subject to declines in governmental funding (Lintz, 2008; Wimsatt et al., 2009). Schneider et al. (2014) asserted that some respondents to the FDP survey "noted that the funding climate is so dismal that they are highly discouraged from continuing research, or are altering the direction of their research to an area that has greater funding opportunities" (p. 89). Individuals from underrepresented groups, particularly racial and ethnic minorities and women, report higher levels of stress than their academic peers (Kouritzin, 2019; Wimsatt et al., 2009), and Rosser (2004) found that reports of increased stress levels were correlated with the likelihood of leaving their institutions or academia entirely. Most universities evaluate research and publications as part of the tenure process, so barriers to these processes may result in denial of tenure and loss of otherwise talented and diverse faculty. Federal sponsors may take nine months or more to render a funding decision (Mosley et al., 2020). Many PIs are expected to acquire external grants to pay for their research and lab personnel, leading some faculty to apply for multiple grants per year and running the risk of spending more time on proposals than research. If federal sponsors accelerate funding decisions, it has the potential to decrease the time PIs spent generating additional grant proposals (Schneider et al., 2014).

#### **Suggestions for Reducing Administrative Burden**

Although literature pertaining to administrative burden in research administration is fairly limited, a few publications have identified potential resolutions for procedural inefficiencies in the grant management lifecycle. At the pre-award stage, PI time could be preserved by utilizing a pre-proposal format instead of submitting a full proposal (Kamensky, 2020; Mosley et al.,

2020). A pre-proposal is a three- to five-page description of the proposed project, an estimated budget, and truncated Biosketches for each senior or key personnel "to facilitate peer reviewers being able to assess the expertise of the key members of the research team" (Mosley et al., 2020, p. 7). This method would allow PIs to forgo the submission of IRB, IACUC, and IBC protocols, detailed budget justifications, and other time-consuming supporting documents until a favorable review is rendered by the sponsoring agency. If a sponsor accepts the pre-proposal, then a PI would submit the full proposal for review. This model is congruent with the Just-In-Time (JIT) process currently utilized by NIH that permits the deferred submission of certain proposal components, such as Other Support (Current and Pending Support) and verification of IRB, IACUC, and/or IBC approvals (National Institutes of Health, 2019).

Schneider et al. (2014) recommend streamlining proposal instructions to minimize ambiguity and waste. A standardized federal grant proposal format would augment understanding of sponsor expectations and decrease the amount of time analyzing sponsor requirements due to having an expected and consistent configuration (Kamensky, 2020; Mosley et al., 2020). Wimsatt et al. (2009) recommend hosting grant writing workshops for researchers at the institutional level to increase proficiency with proposal writing and familiarity with the expectations of federal research grant sponsors. Although some research institutions hire grant writers to simplify the grant writing process, they may lack expertise in a broad range of fields, so the amount of specialized assistance they offer PIs outside of their subject areas is limited.

At the post-award stage, Mosley et al. (2020) recommend that federal sponsors and auditors apply "...consistent implementation and interpretation of the Uniform Guidance" and to "focus on accountability of performance over accounting (paperwork) compliance" (p. 8). Research administrators, PIs, and the audit community should collaborate to focus on efficiency

and effectiveness of research performance, including a standardization of administrative requirements and audit policies across federal agencies (Mosley et al., 2020). Auditors should demarcate more clearly the differences between fraud and administrative noncompliance. Similarly, federal sponsors should implement a streamlined resolution process to investigate and resolve allegations of administrative noncompliance. This would preserve the integrity of the audit process while tolerating immaterial levels of administrative noncompliance (Mosley et al., 2020). One initiative that federal sponsors can implement that minimizes risk of substantial fraud or fiscal waste includes issuing fixed-price grants of up to \$250,000, similar to the process used in the Simplified Acquisition Threshold process for federal programs. Reporting requirements would be limited by sponsors, thus freeing PI time to focus on the research (Kamensky, 2020; Mosley et al., 2020).

With the implementation of a congruous framework of federal policies and expectations, universities would have confidence to reevaluate their institutional policies to determine if each practice is "necessary, effective, and efficient" (Mosley et al., 2020, p. 9). Universities should evaluate each of their policies from a cost/benefit perspective to determine which areas warrant revision, such as the financial thresholds for purchases on federal grants. Institutions should also reevaluate IRB, IACUC, and IBC applications and review procedures, including the regularity with which review boards meet, to identify more resourceful methods of reviewing and amending research compliance protocols. Researchers are typically unable to access their grant funding until IRB, IACUC, and/or IBC protocols are approved, and unfortunately, the inefficiency of the research compliance review process has generated an atmosphere in which "delays are routine" (Schneider et al., 2014, p. 90).

#### **ARTIFACT 2: RESEARCH APPROACH**

#### Methodology

# Introduction

The purpose of this study is to identify areas of administrative burden among research administrators and to recommend best practices to mitigate inefficient and ineffective practices in research administration. Research administration staff were surveyed to reveal insights about the following areas of interest: Which federal sponsors are associated with the highest levels of administrative burden? What makes the grants sponsored by these federal agencies particularly cumbersome? What recommendations do research administrators advance to ameliorate burdensome processes? How can this information be used to inform best practices for the field and to advocate for changes to federal research grant policies?

#### Instrument

A Qualtrics survey was developed to ascertain perceived levels of administrative burden among research administrators. The survey included both quantitative and qualitative segments. Quantitative measures included length of time in the profession, role within research administration, and which sponsors were perceived to present the highest levels of burden. Qualitative measures included questions that allowed for open-ended input from participants to explain why the policies of specific sponsors were perceived as particularly burdensome and what recommendations they wished to advance to ameliorate administrative burden within the profession. Refer to Appendix A to view the survey.

#### **Participants**

Research administrators and research accountants were recruited to complete a Qualtrics survey about the administrative burden they encounter in the course of managing federal

research grants. Of the 160 participants who started the Qualtrics survey, 122 completed the survey. Three participants did not answer any survey questions beyond the consent page, so they were removed from the data pool. Of the 157 participants who answered at least some of the questions, the average completion percentage of the survey was 89.2% and the average duration of the survey was 36.75 minutes.

A total of 122 respondents reported their total length of employment in research administration. The aggregated total of service in this field was 1,629 years for an average length of service of 13.4 years per respondent. Of the 118 who reported their gender, 88.1% identified as women, 11.0% as men, and 0.8% as non-binary. The same 118 respondents who reported gender responded to the question regarding ethnic/racial identification. The total number exceeds 118 since respondents could endorse all descriptors that applied, and seven individuals endorsed two categories each. Table 1 summarizes the ethnic and racial demographics as endorsed by participants.

#### Table 1

Number o	of Res	pondents	bv	Ethnic/R	acial	Identification
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Ethnic/Racial Identification	Number	Percent
Asian American or Pacific Islander	3	2.4
Black or African American	8	6.4
Hispanic or Latina/o/x	8	6.4
Native American or Alaskan Native	4	3.2
White or Caucasian	99	79.2
Other	1	0.8
Prefer not to say	2	1.6

The majority of participants reported current employment at four-year institutions of higher education. Since respondents were able to select all attributes that described their respective institutions, the total of endorsed attributes exceeds the number of unique respondents (n=145) to this question. There was one response each for Two-Year Public, Two-Year Private, Tribal College or University, and Women's College, so those responses were collapsed into the "Other" category for Table 2. The purpose of this question was to ascertain if significant differences existed across institution types, but due to the limited number of respondents to several of the classifications, this was not explored.

## Table 2

λ	lumb	er (	of	Resp	ond	ents	by	Institution	Туре
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Type of Institution	Number	Percent
Four-Year Public	94	55.6
Two-Year Public	1	0.6
Four-Year Private	49	29.0
Two-Year Private	1	0.6
For-Profit	2	1.2
Hispanic Serving Institution	18	10.7
Historically Black College or University	2	1.2
Tribal College or University	1	0.6
Women's College	1	0.6
Did Not Respond	12	7.1

A total of 157 participants selected one or more current roles within research administration. Since it is common for research administrators to occupy more than one role in research administration, the total of endorsed roles in Table 3 (n=370) exceeds the number of respondents. In small research programs, one individual may be responsible for nearly all of the roles.
Individuals who endorsed "Commercialization / Technology Transfer" (n=7) as a role also endorsed Contracts, Pre-Award, and Post-Award as research administration duties they performed. All but one also endorsed being responsible for financial compliance, and the majority also endorsed Research Accounting (n=5) and Research Compliance (n=4) as roles they concurrently occupy. The most commonly endorsed concurrent responsibilities were between the Pre-Award and Post-Award categories (n=64).

# Table 3

Role in Research Administration	Number	Percent
Commercialization / Technology Transfer	7	4.5
Contracts	51	32.5
Financial Compliance	38	24.2
Pre-Award	110	70.1
Post-Award	86	54.8
Research Accounting / Research Finance	43	27.4
Research Compliance	18	11.5
Other (ex: Subawards, Research Manager)	17	10.8

Number of Respondents by Research Administration Role

# Procedure

Institutional Review Board (IRB) approval was obtained from the University of North Dakota (Protocol ID IRB0002660) and the University of Notre Dame (Protocol ID 21-05-6635) prior to the recruitment of participants. Participants were solicited via email, the National Council of University Research Administrators (NCURA) professional group on LinkedIn, institutional listservs, and the Research Administration Discussion List (RESADM-L) listserv at RESADM-L@lists.hrinet.org. A reminder message was submitted to the RESADM-L listserv two weeks prior to the closing date of the survey. Participants were encouraged to share the survey link with other research administrators and research accountants at their respective institutions. The survey link was available from May 26, 2021 through Friday, July 16, 2021.

# Results

Survey respondents were asked to endorse specific tasks that they perceived to be exceptionally burdensome. A score of three indicates the highest level of administrative burden, and a score of one indicates a low level of administrative burden. The most administratively burdensome tasks per research administrators and research accounts are delineated in Table 4. The number of respondents who endorsed any level of administrative burden is listed next to each task.

# Table 4

Most Burdensome Tasks	Score	Number
Intellectual property negotiation	2.57	47
Export Control	2.46	52
Current and pending / Other support (Pre-Award)	2.44	103
Effort reporting	2.28	96
Updating internal policies to reflect federal regulations	2.21	114
Invention and patent disclosures	2.21	38
Licensing and use agreements	2.21	38
Staying current with federal regulations	2.20	137
Subrecipient monitoring	2.06	85
Single audit responses	2.05	55
IRB Protocol Review	2.00	42

Ranking of Most Administratively Burdensome Tasks

Participants were asked to identify which federal sponsors they associated with the highest levels of administrative burden. A total of 153 participants selected one or more agencies as being particularly burdensome in relation to federal research grant administration. Details are outlined in Table 5.

# Table 5

Administrative	Burden	by l	Federal	Sponsor
		~		

Federal Grant Sponsor	Acronym	Number	Percent
Environmental Protection Agency	EPA	11	7.2
Institute of Museum and Library Services	IMLS	2	1.3
National Aeronautics and Space Administration	NASA	21	13.7
National Archives and Records Administration	NARA	0	0.0
National Endowment for the Arts	NEA	9	5.9
National Endowment for the Humanities	NEH	7	4.6
National Institutes of Health	NIH	36	23.5
National Science Foundation	NSF	21	13.7
U.S Agency for International Development	USAID	25	16.3
U.S. Department of Agriculture	USDA	27	17.7
U.S. Department of Commerce	DOC	16	10.5
U.S. Department of Defense	DOD	68	44.4
U.S. Department of Education	ED	39	25.5
U.S. Department of Energy	DOE	41	26.8
U.S. Department of Health and Human Services			
(Excluding NIH)	HHS	23	15.0
U.S. Department of Homeland Security	DHS	10	6.5
U.S. Department of Housing and Urban Development	HUD	8	5.2
U.S. Department of the Interior	DOI	6	3.9
U.S. Department of Justice	DOJ	46	30.1
U.S. Department of Labor	DOL	2	1.3
U.S. Department of State	DOS	5	3.3
U.S. Department of Transportation	DOT	7	4.6
U.S. Department of the Treasury	TREAS	2	1.3
U.S. Department of Veterans Affairs	VA	6	3.9

In the context of administrative burden, the most frequently endorsed sponsor was DOD across all roles within research administration, save for Commercialization/Tech Transfer. The NIH was a close second, being identified as among the most administratively burdensome across all research administration roles except for Contracts and the "Other" category, which included those whose primary roles involved subawarding, departmental administration, etc. Table 6 lists the agencies that were endorsed as particularly burdensome relative to the tasks required from each research administration role.

# Table 6

Most Administratively Burdensome Sponsors by Research Administration Role

Role in Research Administration	Most Burdensome Sponsors
Commercialization / Technology Transfer	DOE, ED, HHS, NIH, USDA (all tied)
Contracts	DOD, ED, DOJ
Financial Compliance	DOD, NIH, HHS (excluding NIH)
Pre-Award	DOD, DOJ, NIH
Post-Award	DOD, NIH, ED, DOJ
Research Accounting / Research Finance	DOD, DOJ, NIH
Research Compliance	DOD, ED, NIH
Other (ex: Subawards, Research Manager)	USDA, DOD, DOC

If a participant selected a federal grant sponsor as being administratively burdensome, they were asked to specify what made that sponsor particularly burdensome. Reasons for the perceived burden included inconsistencies across intradepartmental agencies, such as between the Army Reserve Office and the Office of Naval Research, the level of detail required in proposal documents and annual technical and financial reports, and sponsor-specific systems that were not intuitive or difficult to access. While some of the responses were too general to draw any meaningful conclusions (ex: "Administration"), the detailed responses are summarized for each sponsor.

# Summaries of administrative burden by sponsor

# **Environmental Protection Agency (EPA)**

A total of nine respondents provided additional details on why the EPA was administratively burdensome. Specific responses included "Supporting documentation (i.e. copies of invoices, expense reports, etc.) required for every invoice" and "Lack of knowledge of the part of the agency representatives requires additional time on my part to make them aware of federal regulations." Other comments mentioned that there was too much paperwork and that the agency is too "nitpicky" about how the paperwork is completed.

# Institute of Museum and Library Services (IMLS)

Only two respondents described why they viewed IMLS as particularly burdensome. Both responses mentioned the guidelines and requirements being lengthy or difficult to follow. As of October 2019, only 115 research grants were active and accounted for a mere 0.48% of research grants and contracts awarded to colleges and universities (USAspending, n.d.). Due to the limited availability of these awards, it is possible that the amount of administrative burden associated with these projects is underreported.

# National Aeronautics and Space Administration (NASA)

Of the 18 individuals who provided rationales regarding why NASA research grants were burdensome, six referenced the complexity of the submission guidelines that have to be reviewed for each proposal, including the need to consult multiple documents to ensure compliance with sponsor proposal expectations. One respondent summarized the application guidelines as "a mess" and "hard to navigate." Four participants singled out the budget requirements for their complexity because some budgets must be developed using person hours instead of months of PI effort. This expends an atypically high amount of PI and Pre-Award research administrator time compared to other proposals that require effort months. Additionally, PI salary must be redacted for some proposals despite needing to justify salary and benefit expenses associated with the project. Finally, three respondents identified the research administration portal as a source of burden, describing it as "challenging" or "burdensome."

#### National Archives and Records Administration (NARA)

No respondents identified NARA as using particularly cumbersome processes related to research grants. However, as of October 2019, a total of 42 grants were active at colleges and universities in the United States, accounting for just 0.18% of the total research grants at that time (USAspending, n.d.). It is possible that the limited scope of respondents prevented the identification of administratively burdensome federal grant procedures affiliated with this agency.

#### National Endowment for the Arts (NEA)

Of the seven respondents who provided an explanation of the administrative burden encountered with NEA grants, two indicated that the cost sharing requirement was problematic. This is because institutional approval must be sought for cost share commitments and can increase the proposal timeframe by days or even weeks. Two other participants singled out the agency-specific forms as being "confusing" and difficult to complete.

# National Endowment for the Humanities (NEH)

The respondents (n=6) identified nearly identical pinch points of administrative burden for NEH as they did for NEA: cost sharing (n=2) and "confusing forms" (n-2). Another respondent identified the Electronic Grants Management System (eGMS) that is unique to NEH as being inefficient due to the limited number of research administrators at the recipient institution who can access an award. Once the maximum number of authorized individuals is reached on a given grant, for one new person to gain access, another must relinquish access. Most institutions have a number of unique individuals accessing the award throughout the research grant lifecycle, so arbitrary limitations on how many authorized institutional personnel may access a grant at a given time wastes research administrator time.

# National Institutes of Health (NIH)

Although NIH falls under the administrative umbrella of the Department of Health and Human Services, due to the quantity of grants sponsored by NIH, it was broken out as a unique category for the purposes of this survey. As of October 2019, 13.4% of all research grants and contracts issued to institutions of higher education were funded by NIH (USAspending, n.d.).

A total of 32 participants offered detail on why they perceived NIH grants to be administratively burdensome. Nearly half of these participants (n=15) referenced the everchanging and increasing number of regulations, guidelines, and forms as particularly burdensome. Several respondents singled out specific forms or processes as being cumbersome, such the Research Progress Performance Report (RPPR) (n=8), excessively detailed and repetitive application processes (n=6), and the Other Support form (n=5). It was noted that failure to explicitly adhere to all of the myriad of proposal guidelines and requirements would result in a proposal being disqualified for non-scientific reasons. Additional responses included the lack of timely replies to policy and procedural questions, conflicting advice provided by grants management specialists versus program officers (PO) within the agency, and resolving noncompliant publications in the National Center for Biotechnology Information (NCBI). Individuals identified a broad array of complicated procedures, such as managing the NIH salary cap, calculating PI effort, receiving reduced annual increments of awards due to continuing resolutions only to be awarded the remaining portion a few days to weeks later, just-in-time (JIT) reporting, managing foreign influence reporting requirements, research compliance for human subjects, and grant transfers between institutions.

# National Science Foundation (NSF)

Although 18 individuals reported reasons for why NSF grants were so burdensome, there was no consistent consensus among respondents. Three cited the ever-evolving regulations and lack of sponsor guidance as problematic. Others mentioned the specificity required in the formatting of the applications (n=2) and the Current and Pending document (n=2) because improper formatting, such as margins being slightly too narrow, can result in an automatic rejection of a grant proposal. Other individuals cited the post-award postdoctoral fellow mentor plans (n=1), rebudgeting requests(n=1), and the level of audit burden as being challenging (n=1).

# U.S. Agency for International Development (USAID)

Although USAID accounted for just 0.32% of grants and contracts to institutions of higher learning in October 2019 (USAspending, n.d.), 16.3% of survey respondents associated the agency with high levels of bureaucratic efficiencies. A total of 20 respondents offered details about the high level of burden. Due to the international research collaborations that are financed by USAID, respondents cited challenges with enforcing sponsor requirements on foreign institutions. From the Pre-Award perspective, proposals require an "extreme" amount of detailed information, such as granular budget justifications, and can exceed 100 pages. On the Research Contracts side, the complexity of contracts contributes to administrative burden. Post-Award and Research Accountants cited the prior approval process for budget expenditures that deviate from the proposed budgets, excessive regulations on top of Uniform Guidance, the audit process, and the excessively detailed financial reporting required by the sponsor.

#### U.S. Department of Agriculture (USDA)

Those describing burdensome procedures affiliated with USDA most frequently cited the indirect rate calculation as exceptionally problematic. Pre-Award administrators must calculate

both the Total Federal Funds Awarded (TFFA) rate, which is capped at 30%, or the institution's federally negotiated F&A rate. While this may seem straightforward, equipment is exempt from indirect cost calculations. Subawards in excess \$25,000 incur F&A at the home institution only on the first \$25,000 of the subawarded amount, so the excess is not subject to F&A at the home institution but is subject to F&A at the subaward institution. Other respondents indicated the lack of consistency in requests for proposals (RFP) from year to year, and this bogs down the proposal timeline.

#### U.S. Department of Commerce (DOC)

Of the 12 explanations for what makes DOC administratively burdensome, a few themes emerged: the inflexible terms and conditions of the grants, overly detailed financial reporting requirements, and lack of consistency within the same agency. The National Oceanic and Atmospheric Administration (NOAA) and National Institute of Standards and Technology (NIST) flow through the DOC and were singled out for their confusing grants portal and administrative requirements.

# U.S. Department of Defense (DOD)

A total of 58 respondents provided rationales for the administrative burden faced when administering DOD grants. A number of central themes arose, including the level of detail required in proposal documents (ex: budget justifications for anticipated minor expenses), inconsistencies across agencies within the DOD (ex: Office of Naval Research requirements versus Army Research Office), the Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation (DFAR) clauses in contracts that complicate contract negotiation, and the inconsistent interpretation of sponsor-issued guidelines by sponsor personnel.

#### U.S. Department of Education (ED)

Of the 31 participants who detailed burdensome procedures they encountered with ED grants, the most frequent concerns centered around accessing the G5 grants system. In some cases, only the PI can access the required documents, thus delaying the contracts and post-award processes. Other common complaints surrounded the lack of consistency in the regulations, with some respondents indicating they needed to look for policy guidance in multiple documents, some of which provided conflicting information. They also cited a lack of accurate or timely responses from the grant managers at ED, further slowing down the required administrative tasks. The application process was singled out for being lengthy with rigid formatting requirements, such as particular margins.

# U.S. Department of Energy (DOE)

Multiple grant mechanisms are offered by the DOE, and 33 survey respondents offered explanations about the perceived administrative burden associated with DOE grants. The most commonly noted issues were the lack of a standardized submission system and an overly complex proposal process. For awards that require cost share contributions, respondents noted that the required financial reports were bogged down due to the way that the budgets are managed. The frequency of financial reporting, including detailed estimated carryover amounts, also complicate the grant management process.

#### U.S. Department of Health and Human Services (HHS; excluding NIH)

The overarching theme involving HHS awards was the lack of consistency between its agencies and convoluted grants portals. Respondents noted that some sponsors use some NIH forms, and the consistency is appreciated, but others do not. Despite being subject to expanded authority, agencies within HHS require justifications for relatively minor rebudgets or carryover.

Several individual agencies were singled out in the comments, such as "SAMHSA is extremely difficult to work with and often adds additional steps in award management" and "HRSA makes my head hurt. Their rules can be confusing." The strongest statement among the 18 responses declared, "SAMHSA is from the ninth circle of hell." No additional context was provided, but it may provide additional insights into the administrative burden associated with those grants.

# U.S. Department of Homeland Security (HHS)

Invoices and financial reports were cited as major areas of burden by two of the respondents, with one reporting, "They tend to look for reasons to reject items claimed for reimbursement and typically give nonsensical reasons for their rejects." Another respondent targeted the grants portal for FEMA, referring to it as "completely unusable" and noting that the requirements are "out of line with other major federal funders." Since only seven participants shared insights on the burdens associated with DHS, it is unclear how pervasive administrative burden is within the research grant lifecycle of DHS awards.

# U.S. Housing and Urban Development (HUD)

The chief complaint surrounding HUD awards centers around burdensome reporting practices. Per one respondent, the sponsor requires the submission of hourly timesheets for projects despite faculty not being hourly employees. Two others noted that the invoicing and financial drawdown system is complex because of the lack of guidelines and unintuitive website design. As of October 2019, HUD issued just 0.15% of research grants and contracts to colleges and universities (USAspending.gov, n.d.). Only six respondents provided any details regarding their experiences with this sponsor, so the sample set is too small to draw any definitive conclusions.

# U.S. Department of the Interior (DOI)

Although five respondents identified administratively burdensome practices within DOI grant management, no singular theme emerged. Each highlighted a different issue, ranging from lack of budget flexibility to inconsistent communication to the level of detail required for invoicing to a generally convoluted award process.

# U.S. Department of Justice (DOJ)

Forty-two individuals elaborated on their experiences with administrative burden in DOJ grants. Two major themes emerged: the required but lengthy Grants Financial Management training, which is required to access the DOJ grants portal, and the JustGrants system is perceived as buggy and difficult to navigate. Respondents described the JustGrants system as "horrible," "confusing," "extremely unfriendly," "time consuming," "awkward," "doesn't work," "just awful," "terrible," and "the worst portal ever created. Period." Many respondents commented on how much more inefficient this relatively new system made all grant-related processes, ranging from proposal submission to reporting.

# U.S. Department of Labor (DOL), U.S. Department of State (DOS), U.S. Department of Transportation (DOT), U.S. Department of the Treasury (TREAS), U.S. Department of Veterans Affairs (VA)

Due to the limited number of agency-specific responses (n=2, 4, 4, 1, 5 respectively), coupled with the lack of specificity among most of the comments, no general trends were identified related to administrative burden in research grant management.

# **Suggestions to Ameliorate Administrative Burden**

A total of 89 respondents suggested methods to reduce administrative burden across research administration. Two predominate themes emerged: sponsors should standardize federal grant management systems, forms, and regulations and reduce the frequency of changes to these same systems, forms, and regulations.

A substantial number of the suggestions centered around developing a singular electronic research administration (eRA) platform through which proposals, just-in-time, annual reports, and financial reports may be submitted. In addition, recommendations called for a master version of Biosketches, Current and Pending, Other Support, and publications to be warehoused in this singular eRA system that could be referenced as needed for proposals and annual reports. While the advent of SciENcv moves the needle in this direction, it does not yet encompass all of these forms. Parallel processes across numerous platforms still exist. Calls for a standardization of effort reporting were notable, including some suggestions that this be tied into the singular eRA platform to save time for both PIs and research administrators. Respondents also noted the addition of eRA systems and regulations. Some participants cited the development of agency-specific eRA systems (ex: JustGrants.gov) instead of adhering to grants.gov as the primary proposal submission source.

Similarly, multiple respondents cited the need for consistent terms and conditions across federal research grant sponsors. Although UG was supposed to provide regulatory guidance across all federal research grants, each federal sponsor has augmented the standard set of regulations with its own layer of regulations, creating contradictions in regulatory expectations between agencies. In an attempt to facilitate understanding of the regulatory differences across agencies, NSF developed a "*Research Terms and Conditions Appendix A Prior Approval* 

*Matrix*" (National Science Foundation, 2020, November 12). Although UG is updated approximately every five years, individual sponsors may implement additional terms and conditions on top of UG, causing the so-called "uniform" regulations to vary by federal sponsor with more frequency than the overarching parent regulations.

#### Discussion

Since there is a limited body of literature pertaining to research administration, this study was developed with basic research questions in mind: Which federal sponsors are associated with the highest levels of administrative burden, and why? What recommendations do research administrators have to mitigate areas of procedural inefficiency and administrative burden? How can this data be employed to develop best practices for the field and to advocate for policy changes?

The federal research grant sponsors that were most frequently cited for administrative burden were DOD, DOJ, DOE, ED, and NIH. Consistent with the existing pool of literature (ex: Cole, 2007; Mosley et al., 2020), some overlapping themes emerged, such as frequently changing regulations or excessive reporting requirements. Federal grant sponsors are aware of the administrative burden imposed by the inconsistencies across research grant funding mechanisms. To address this, they introduced *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (UG) in 2014 with the explicit purpose of reducing the level of administrative burden that was placed on grant recipients (Office of Management and Budget, 2014). As survey participants noted, individual federal grant sponsors continue to design and implement their own agency-specific regulations and systems that create undue burden throughout the research grant lifecycle. Instead of moving toward uniformity in systems, forms, and regulations, the opposite trend is noted.

Survey respondents also identified unique issues with each federal grant sponsor.

Respondents cited FAR and DFAR clauses and inconsistencies across DOD departments as major sources of inefficiency. Participants reported an exhaustive training program that was required to access the DOJ grants portal, JustGrants, which is perceived as specious and cumbersome. The level of detail and frequency of financial reporting complicates DOE grants, whereas the G5 grants system was reported as a barrier to efficient operations among ED grant recipients. The chief complaints about NIH grant management centered around the frequency with which forms and guidelines are updated, causing PIs and research administrators to spend time learning to navigate the updated systems and forms.

Survey respondents submitted numerous ideas to reduce or eliminate substantial sources of administrative burden. However, the suggestions trended around a few central themes: providing a singular eRA system for proposal submissions, scientific and financial reporting, and warehousing required related documents (ex: Biosketches, Current and Pending) would ameliorate a substantial amount of this burden. These recommendations are consistent with the recommendations issued by the Research Business Models Working Group (RBMWG) in 2018. The RBMWG was created to address the high levels of administrative burden associated with the federal research grant management process. In their report, they wrote, "Many reports have been written and numerous Congressional hearings have been held on this issue over the past several decades, identifying particular regulations or processes and offering proposals for significant improvement" (p. 1). Two of their recommendations have been deployed thus far: the Open Researcher and Contributor Identifiers (ORCID iDs), which serve as a unique identifier through which PIs may affiliate grants and publications, and expanded use of Science Experts Network Curriculum Vitae (SciENcv), which fosters more timely creations of Biosketches that must be submitted with federal grant proposals and some annual progress reports. Unfortunately, most of federal grant sponsors have not adopted the standardized Biosketches that may be created in SciENcv, so administrative burden surrounding Biosketches remains.

Additional recommendations from survey participants include a request for the federal government to coordinate terms and conditions across all federal research grant sponsors and to limit or eliminate agency-specific regulations that further complicate research administration processes. The RBMWG (2018) asserted that the implementation of "a simplified, uniform grant application format and associated process" and streamlining annual progress reports would mitigate burden. The suggestions of the survey participants and the RBMWG are consistent but are yet to be enacted. As Mosley et al. (2020) reported, discussions around procedural inefficiencies in federal research management have been ongoing for years, but few changes have been implemented that positively impact these areas of concern. Ideally, more grant recipients and research administrators should advocate for these changes at FDP meetings with the ultimate goal of precipitating regulatory changes across federal research grant sponsors.

#### Limitations

The existing body of literature related to administrative burden in research administration is limited. Due to this, the survey was developed to capture a broad sampling of areas of administrative burden. The invitation to complete the survey was deployed to research administrators who subscribed to the Research Administration Discussion List (RESADM-L) listserv, those who were members of the LinkedIn NCURA professional group, and other colleagues via email and internal research administration listservs. The majority of respondents were from four-year public and private institutions, with few respondents from two-year institutions, HBCUs, TCUs, and Women's Colleges, so the identified areas of burden may be

specific to larger research institutions. Due to the low sample sizes of participants affiliated with several institution types, attempts to identify reliable differences among them would not have yielded statistically meaningful results. Although general trends were identified, providing a role-specific survey to a broader group of research administrators or to research administrators employed within a specific Carnegie Classification tier may yield different results. As with all survey designs, self-reported data is subject to biases and omissions, so repeated deployment of a similar survey would need to be performed and analyzed to establish reliability of the findings.

#### **Suggestions for Future Research**

Specific subsets of research administrators and institutions of higher learning should be studied to identify unique sources of administrative burden. Do research administrators at colleges with low research activity experience the same types and levels of administrative burden as those at R1 and R2 institutions? What differences are observed at HBCUs, TCUs, HSIs, or Women's Colleges that differ from Predominantly White Institutions (PWI)? If disparities are noted, what systematic changes are needed to provide a more equitable administrative experience for research administrators across all institutions? What impact, if any, do staffing levels of research administrators have on the perception of administrative burden associated with federal research grant management?

#### Summary

The research administration process, particularly in relation to federal grants, presents a virtual cornucopia of opportunities for reducing administrative burden. From the proposal to the grant closeout phase, a number of areas require analysis to develop more contemporary, streamlined, and efficient procedures. As PIs are increasingly pressured to obtain externally-funded grants to support research, it is reasonable to anticipate that PIs will expect an

increasingly robust team of research administrators to facilitate the application for and management of research grants. Since universities have already increased their own spending for research-related support by \$7 billion to augment specialized units of research administration from 2010 to 2017 (Kamensky, 2020; Mosley et al., 2020), this figure will likely continue to expand without streamlining the existing body of regulatory and procedural demands that dictate the research administration process. Institutions that lack the resources to employ full complements of skilled research administrators are at risk of losing out on research funding, which runs the risk of slowing new developments in science and technology. While faculty are capable of handling the administrative tasks, every minute they spend completing paperwork is a minute less spent on actual research. If the greater public was aware that some faculty report spending nearly half of their federal research time on paperwork instead of actively researching cures for cancer, infectious diseases, safety mechanisms, or societal concerns, how would they respond? The intention is to shine light on these inadequacies and to advance solutions to mitigate administrative burden and procedural inefficiencies in the federal research grant process.

# **ARTIFACT 3: SOLUTIONS**

#### **Scholar-Practitioner Statement**

Although my resume reflects a varied career path, all of the positions I have held to date share one underlying commonality: federal funding sources that are governed by a web of federal regulations. Whether the position has been in a nursing home, community mental health agency, financial aid office, or research administration, each has been subject to substantial reporting requirements and routine audits. Failure to comply with these requirements may lead to a subsequent reduction or elimination of federal funding. When I began working as a post-award grants program manager in 2017, I was pre-sensitized to procedural inefficiencies foisted upon the recipients of federal funding. I familiarized myself with the literature on administrative burden experienced by principal investigators. However, there was a paucity of research that focused the administrative burden experienced by research administrators. The topic of my dissertation became clear: to identify the most burdensome tasks and sponsors associated with federal research grant management and to solicit solutions to address this burden.

#### **Audience Identification:**

The target audience of this study includes the broad spectrum of research administrators, including those who hold roles in pre-award, research compliance, research contracts, post-award, financial compliance, research accounting/research, commercialization, and technology transfer. Although each institution layers its own levels of procedural edicts on top of the federal regulations, the study focused on identifying the collective areas of research grant management burden and proposals to ameliorate some of this burden. It is understood that some accountability must be maintained to demonstrate prudent management of federally-funded initiatives, so the aim is to assuage the procedural inefficiencies as opposed to eradicating all regulations

pertaining to federal research grant management. Ideally, the federal grant sponsors will consider the findings of this study and initiate changes that satisfy agency reporting requirements while also minimizing burden on research administrators.

# **Dissemination Plan:**

A summary of the survey findings was outlined in a poster presentation. The poster was accepted for presentation at the Society of Research Administrators International (SRAI) conference in New Orleans, Louisiana in October 2021. The same poster presentation was accepted for presentation at "Revere, Revise, Reimagine: A Symposium of Research and Creative Works" at Saint Mary's College in Notre Dame, Indiana in October 2021.

A manuscript was developed based on the survey responses from post-award research administrators (PARA). For the purposes of the manuscript, the PARA classification includes individuals who endorsed roles in financial compliance, post-award, and/or research accounting. This manuscript will be submitted to the Journal of Research Administration (JRA). The JRA is published biannually and focuses on educating professionals within the international research administration community (Journal of Research Administration, n.d.).

# CONCLUSION

As faculty are expected to participate in increasing levels of research in addition to teaching, mentoring, and service activities, inefficiencies in the federal research grant process must be identified and ameliorated. The existing body of literature references administrative burden associated with federal research grants, primarily through the viewpoint of principal investigators, and is outlined in Artifact 1. The survey associated with this dissertation identified primary sources of administrative burden as experienced by research administrators and the findings are discussed in Artifact 2. The plan to address the problem of practice, which includes disseminating research findings and submitting a manuscript, are outlined in Artifact 3. The findings from these Artifacts should serve as a building block for further research that focuses on specific subgroups of research administrators, such as those who hold a specific role within research administration or who are employed by institutions that are grouped together under the same Carnegie tier. Ultimately, principal investigators and research administrators should use the existing data to challenge systematic burdens, generate efficient solutions, and advocate for policy changes at the federal and institutional levels. These actions are necessary to allow PIs to focus on scientific, societal, and technological advances instead of unnecessary administrative processes.

# Appendix

# Survey of Administrative Burden

This appendix contains a copy of the Qualtrics survey that participants completed.

#### **Research Administration Burden Survey**

**End of Block: Consent** 

Start of Block: What is your role in research administration?

#### Q1 Please select all of the following characteristics that describe your institution:

Public, Four-Year (8)
Public, Two-Year (9)
Private, Four-Year (10)
Private, Two-Year (11)
For-Profit (12)
Hispanic Serving Institution (HSI) (13)
Historically Black College or University (HBCU) (14)
Tribal College or University (15)
Women's College (16)

Commercialization and Technology Transfer (1)
Contracts (2)
Financial Compliance (8)
Pre-Award (4)
Post-Award (5)
Research Accounting / Research Finance (6)
Research Compliance (ex: IRB review) (3)
Other (please specify) (7)

Q2 What is your role in research administration? Please select all that apply.

Q3 Which departments do you support? Please select all that apply.

Agriculture (1)
Architecture (2)
Aviation (3)
Business (4)
Computer Science (5)
Education (6)
Engineering (7)
Fine Arts (8)
Humanities (9)
Law (10)
Mathematics (11)
Medicine (12)
Natural and/or Physical Science (14)
Nursing (13)
Social Science (15)
Veterinary Medicine (16)
Other (please list) (17)

Environmental Protection Agency (EPA) (1) Institute of Museum and Library Services (IMLS) (2) National Aeronautics and Space Administration (NASA) (3) National Archives and Records Administration (NARA) (4) National Endowment for the Arts (NEA) (5) National Endowment for the Humanities (NEH) (6) National Institutes of Health (NIH) (7) National Science Foundation (NSF) (8) U.S. Agency for International Development (USAID) (9) U.S. Department of Agriculture (USDA) (10) U.S. Department of Commerce (includes NOAA and NIST) (11) U.S. Department of Defense (DOD) (12) U.S. Department of Education (ED) (13) U.S. Department of Energy (DOE) (14) U.S. Department of Health and Human Services (except NIH) (15) U.S. Department of Homeland Security (DHS) (16) U.S. Department of Housing and Urban Development (HUD) (17)

Q4 Which of the federal sponsors do you have experience with as a research administrator? Please select all that apply.

U.S. Department of the Interior (DOI) (18)
U.S. Department of Justice (DOJ) (19)
U.S. Department of Labor (DOL) (20)
U.S. Department of State (DOS) (21)
U.S. Department of Transportation (DOT) (22)
U.S. Department of the Treasury (TREAS) (23)
U.S. Department of Veterans Affairs (VA) (24)
Other (please list) (25)

Q5 Which of these federal sponsors do you associate with the most administrative burden? Please select all that apply.

20 · · · · · · · · · · · · · · · · · · ·
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = Environmental Protection Agency (EPA)
Environmental Protection Agency (EPA) (1)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = Institute of Museum and Library Services (IMLS)
Institute of Museum and Library Services (IMLS) (2)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = National Aeronautics and Space Administration (NASA)
National Aeronautics and Space Administration (NASA) (3)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = National Archives and Records Administration (NARA)
National Archives and Records Administration (NARA) (4)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = National Endowment for the Arts (NEA)
$\frown$
National Endowment for the Arts (NEA) (5)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = National Endowment for the Humanities (NEH)
$\frown$
National Endowment for the Humanities (NEH) (6)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = National Institutes of Health (NIH)
$\frown$
National Institutes of Health (NIH) (7)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = National Science Foundation (NSF)

National Science Foundation (NSF) (8)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Agency for International Development (USAID)
U.S. Agency for International Development (USAID) (9)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Agriculture (USDA)
U.S. Department of Agriculture (USDA) (10)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Commerce (includes NOAA and NIST)
U.S. Department of Commerce (includes NOAA and NIST) (11)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Defense (DOD)
U.S. Department of Defense (DOD) (12)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Education (ED)
U.S. Department of Education (ED) (13)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Energy (DOE)
U.S. Department of Energy (DOE) (14)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Health and Human Services (except NIH)
U.S. Department of Health and Human Services (except NIH) (15)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Homeland Security (DHS)

U.S. Department of Homeland Security (DHS) (16)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = $U.S.$ Department of Housing and Urban Development (HUD)
U.S. Department of Housing and Urban Development (HUD) (17)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of the Interior (DOI)
U.S. Department of the Interior (DOI) (18)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Justice (DOJ)
U.S. Department of Justice (DOJ) (19)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Labor (DOL)
U.S. Department of Labor (DOL) (20)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of State (DOS)
U.S. Department of State (DOS) (21)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of Transportation (DOT)
U.S. Department of Transportation (DOT) (22)
Display This Choice: If Which of the federal sponsors do you have experience with as a research administrator? Please sel = U.S. Department of the Treasury (TREAS)
U.S. Department of the Treasury (TREAS) (23)
Display This Choice:
If Which of the federal sponsors do you have experience with as a research administrator? Please sel = $U.S.$ Department of Veterans Affairs (VA)

U.S. Department of Veterans Affairs (VA) (24)

Display This Choice:
If If Which of the federal sponsors do you have experience with as a research administrator? Please sel Other (please list) Is Not Empty.
Q6 What makes each of these federal sponsors the most administratively burdensome? Please provide as much detail as possible in the text box below each sponsor.
Display This Choice:
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = $Environmental$ Protection Agency (EPA)
Environmental Protection Agency (EPA) (1)
Display This Choice:
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = Institute of Museum and Library Services (IMLS)
Institute of Museum and Library Services (IMLS) (2)
Display This Choice:
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = National Aeronautics and Space Administration (NASA)
National Aeronautics and Space Administration (NASA) (3)
Display This Choice:
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = National Archives and Records Administration (NARA)
National Archives and Records Administration (NARA) (4)
Display This Choice:
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = National Endowment for the Arts (NEA)
$\frown$
National Endowment for the Arts (NEA) (5)
Display This Choice:
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = National Endowment for the Humanities (NEH)
National Endowment for the Humanities (NEH) (6)
Display This Choice:

If Which of these federal sponsors do you associate with the most administrative burden? Please sele = National Institutes of Health (NIH)
National Institutes of Health (NIH) (7)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = National Science Foundation (NSF)
National Science Foundation (NSF) (8)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Agency for International Development (USAID)
U.S. Agency for International Development (USAID) (9)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Agriculture (USDA)
U.S. Department of Agriculture (USDA) (10)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Commerce (includes NOAA and NIST)
U.S. Department of Commerce (includes NOAA and NIST) (11)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Defense (DOD)
U.S. Department of Defense (DOD) (12)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Education (ED)
U.S. Department of Education (ED) (13)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Energy (DOE)
U.S. Department of Energy (DOE) (14)

Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Health and Human Services (except NIH)
U.S. Department of Health and Human Services (except NIH) (15)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Homeland Security (DHS)
U.S. Department of Homeland Security (DHS) (16)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Housing and Urban Development (HUD)
U.S. Department of Housing and Urban Development (HUD) (17)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of the Interior (DOI)
U.S. Department of the Interior (DOI) (18)
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Justice (DOJ)
U.S. Department of Justice (DOJ) (19)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Labor (DOL)
U.S. Department of Labor (DOL) (20)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of State (DOS)
U.S. Department of State (DOS) (21)
Display This Choice: If Which of these federal sponsors do you associate with the most administrative burden? Please sele = U.S. Department of Transportation (DOT)

U.S. Department of Transportation (DOT) (22)
Display This Choice:
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = $U.S.$ Department of the Treasury (TREAS)
U.S. Department of the Treasury (TREAS) (23)
Display This Choice:
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = $U.S.$ Department of Veterans Affairs (VA)
U.S. Department of Veterans Affairs (VA) (24)
Display This Choice:
If Which of these federal sponsors do you associate with the most administrative burden? Please sele = \${q://QID4/ChoiceTextEntryValue/25}
\${Q5/ChoiceDescription/26} (25)

**End of Block: Federal Sponsors** 

**Start of Block: Burdensome Tasks** 

Q7 Please indicate the level of administrative burden you experience related to each of the following tasks associated with research administration in general:

	Most Burdensome (1)	Moderately Burdensome (2)	Least Burdensome (3)	I do not perform these tasks (4)
Accessing and Navigating Federal Grant Management Systems (1)	0	0	0	0
Staying Current with Federal Regulations (2)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Updating Internal Policies to Reflect Federal Regulations (3)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
	1			

	Most Burdensome (1)	Moderately Burdensome (2)	Least Burdensome (3)	I do not perform these tasks or N/A (4)
Biosketch (2)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Budget Development and Justification (3)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Changes to Proposals after Initial Submission (16)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Current and Pending / Other Support (5)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Identifying Funding Opportunities (9)	0	$\bigcirc$	$\bigcirc$	0
Just-in-Time (JIT) (10)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Reviewing / Editing Proposals (11)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Reviewing Solicitations and Requests for Proposals (17)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Other (please specify) (14)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$

Q8 Please indicate the level of administrative burden you experience related to each of the following tasks associated with **proposal development**:

	Most Burdensome (1)	Moderately Burdensome (2)	Least Burdensome (3)	I do not perform these tasks or N/A (4)
Award Negotiation (9)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Consulting Agreements (12)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Export Control (10)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Intellectual Property Negotiation (5)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Invention and Patent Disclosures (2)	$\bigcirc$	$\bigcirc$	0	$\bigcirc$
Licensing and Use Agreements (3)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Material Transfer Agreements (4)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Subaward Negotiations (13)	$\bigcirc$	0	$\bigcirc$	$\bigcirc$
Other (please specify) (6)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

Q9 Please indicate the level of administrative burden you experience related to each of the following tasks associated with **commercialization**, **technology transfer**, **and research contracts**:

	Most Burdensome (1)	Moderately Burdensome (2)	Least Burdensome (3)	I do not perform these tasks or N/A (4)
Conflict of Interest (1)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
HIPAA Compliance (4)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
HIPAA Protocol Review (5)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
IACUC Compliance (6)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
IACUC Protocol Review (7)	0	$\bigcirc$	0	$\bigcirc$
IBC Compliance (2)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
IBC Protocol Review (9)	0	$\bigcirc$	$\bigcirc$	0
IRB Compliance (8)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
IRB Protocol Review (10)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Other (please specify) (12)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$

Q10 Please indicate the level of administrative burden you experience related to each of the following tasks associated with **research compliance**:
Q11 Please indicate the level of administrative burden you experience related to each of the following tasks associated with **post-award fund management, financial compliance, and research accounting**:

	Most Burdensome (1)	Moderately Burdensome (2)	Least Burdensome (3)	I do not perform these tasks or N/A (4)
Award Setup (2)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Budget Revisions (7)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Change in Project Personnel (8)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Change in Project Scope (9)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Current and Pending / Other Support (10)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Effort Reporting (11)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Financial Compliance Monitoring (except Participant Support) (5)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Financial Reporting (12)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Fund Closeout (13)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Managing Grant Budgets and Expenditures (14)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
No-Cost Extensions (15)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Participant Support Monitoring (16)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Research Performance Progress Reporting (17)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Single Audit Responses (19)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Spending Projections (20)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$
Subrecipient Monitoring (21)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$

Other (please specify) (22)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Page Break				

Q12 Out of all of the tasks you perform related to federal grant management, which are the most administratively burdensome to you? Please enter up to five tasks below.

Enter Task 1 in the Text Box Below (54)
Enter Task 2 in the Text Box Below (55)
Enter Task 3 in the Text Box Below (56)
Enter Task 4 in the Text Box Below (57)
Enter Task 5 in the Text Box Below (58)

Q13 For each of the tasks that you identified as the most administratively burdensome, please describe what makes them particularly burdensome. Please provide as much detail as possible in the text box below each task.

Display This Choice	
If Out of all of the Text Box Below	the tasks you perform related to federal grant management, which are the most admin = Enter Task 1 in
the Text Dox Delow	
	{Q12/ChoiceTextEntryValue/54} (4)
Display This Choice	
If Out of all of the Text Box Below	the tasks you perform related to federal grant management, which are the most admin = Enter Task 2 in
$\frown$	
	{Q12/ChoiceTextEntryValue/55} (5)
Display This Choice	
If Out of all of the Text Box Below	the tasks you perform related to federal grant management, which are the most admin = Enter Task 3 in
$\frown$	
	{Q12/ChoiceTextEntryValue/56} (6)
Display This Choice	
If Out of all of the Text Box Below	the tasks you perform related to federal grant management, which are the most admin = Enter Task 4 in
$\frown$	
	{Q12/ChoiceTextEntryValue/57} (7)
Display This Choice	
<i>If Out of all of the Text Box Below</i>	the tasks you perform related to federal grant management, which are the most admin = Enter Task 5 in
$\frown$	
	\${Q12/ChoiceTextEntryValue/58} (8)
Page Break –	

Q14 What recommendations do you have for alleviating administrative burden associated with federal grant administration? Please be specific as possible, including the sponsoring agency and specific task when appropriate.

**End of Block: Burdensome Tasks** 

Start of Block: About You

Q15 How many years have you been employed in research administration?

Q16 With which gender do you identify?

Q17 Which of the following best describe you? Please select all that apply.

Asian or Pacific Islander (1)
Black or African American (2)
Hispanic or Latino/a/x (3)
Native American or Alaskan Native (4)
White or Caucasian (5)
Other (6)
Prefer not to say (7)

End of Block: About You

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