Sharing the Model and Outcomes from the GRANTS MADE Program: Grants and Research Administration Networking and Training for Students across Maryland and Delaware's 7 Minority Serving Institutions

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Project Overview

The project, "GRANTS MADE: Grants and Research Administration Networking and Training for Students across Maryland and Delaware's 7 Minority Serving Institutions (MSIs)," developed and piloted a regional university-based research administration internship pipeline program.

The overall goal of the project was to chart a course for recruiting undergraduate students into internships in research administration so that they could gain experience, skills, and familiarity with the field. Research administration internship programs directly benefit universities by contributing to the pipeline of potential new members of their research administration workforce. Research centers, shared services centers, and sponsored program offices gain student interns, who in turn receive research administration training and, ideally, eventual job placement at these same universities, thereby recruiting and retaining high-quality young research administration professionals at universities. MSIs historically face challenges with respect to providing research administration services to/for their faculty, which hinders the expansion of their research capacity. By recruiting and retaining the next generation of research administrators, internship programs such as GRANTS MADE help expand and diversify the research administration workforce overall while building research capacity at the participating institutions and establishing a sustainable program model that other institutions can follow.

The GRANTS MADE project was supported by collaborative awards from the National Science Foundation's GRANTED Program. Three anchor institutions led the project—UMBC, Morgan State University, and Delaware State University—with collaboration from the other four officially designated MSIs in Maryland—Bowie State University, Coppin State University, University of Baltimore, and University of Maryland Eastern Shore. In this White Paper, we describe the project's structure and activities before discussing overall outcomes of the project and specific recommendations for regional research administration internship program models. We conclude with a discussion of the impact of this project at the anchor institutions and more broadly as a model for further future development and expansion.

Project Structure and Activities

The GRANTS MADE project was led by a team of research administration leaders from UMBC, Morgan State University, and Delaware State University. These three anchor institutions are the MSIs in Maryland and Delaware with the largest research portfolios and have a history of prior collaborations; they also have all experienced the need to further expand their research administration workforce. The project consisted of three main parts: 1) determining the broader need, prior models, and best practices for a student internship program in research administration, 2) establishing, piloting, and evaluating the internship program, and 3) communicating about the project and the overall need for research administration internship programs via participation in local, national, and regional conferences.

Part 1: The Internship Program Model

Six interns—two at each institution—were selected and placed at these three anchor institutions. The internship opportunity was advertised widely on each campus, through campus-wide emails, and outlets such as the respective Career Centers, and academic advisors. Across the three institutions, 115 applications were received, from which the six interns were selected based on criteria that included academic excellence, interest in the program and in the field of research administration, and willingness to carry out the duties of the internship for 10 hours per week for at least one semester, preferably two. Students at any level and from any major were considered. The interns selected were from an array of disciplinary backgrounds, with majors not only in more typical areas such as economics and financial accounting, but also sports science and administration, law, and biological sciences/forensic science. No prior experience with research administration was required. The Shareable Resources section at the end of this White Paper includes links to internship descriptions and recruitment materials that were developed for this project.

Internship placement varied across the three anchor institutions. At UMBC, the interns were placed in two shared services centers, one in the College of Arts, Humanities, and Social Sciences and one in the College of Engineering and Information Technology. At Morgan State University, the interns were placed in the central Office of Research Administration. At Delaware State University, one intern was placed in the Office of Sponsored Programs and the other in the Office of Research Development and Services. Each student was mentored by a research administration professional. Funding from the collaborative awards to each institution provided compensation in the form of a stipend that was issued to each student upon completion of each semester of the internship. The stipend paid students at minimum wage for 10 hours per week for 14 weeks of the semester. In future iterations, an hourly pay structure at a higher rate, within each university's student wage guidelines, will be explored.

In addition to their internship site placements, students met via Zoom periodically as a group for cohort-building and regular communication. Brief surveys and interviews were also collected from interns on a voluntary basis at the beginning, midpoint, and conclusion of the program. They also participated in research activities related to the project, as discussed in the Project Outcomes section, below.

The internship placements were intended to provide students with transferable skills in research administration that could also facilitate their future career placement. Thus far, two of the six interns are currently employed in research administration positions. One intern who is still a student obtained summer employment with UMBC's Office of Research Protections and Compliance, where he will assist with reviewing/auditing active protocols and drafting compliance documents. Another intern began a full-time position as a grants and contracts specialist at the medical school of a large university in Maryland. Two students shared that they hope to return to hold another research administration internship in the coming academic year. During a hybrid symposium held at UMBC in April 2024, all interns discussed how their experience in the GRANTS MADE program is directly applicable in their intended future careers. The

impact of a more expansive and diverse cohort of young professionals entering the field of research administration as well as other related fields where their skills can be directly applied is transformative in providing additional career pathways.

Part 2: Broader Needs Assessment

For Part 2 of the project, which was determining the broader need, prior models, and best practices for a student internship program in research administration, the research team gathered information from various stakeholders in the field of research administration, including campus professionals, and on a wider scale with members of professional associations. Thirteen interviews and three focus groups were conducted with research administrators and campus professionals from 10 institutions: the three anchor institutions (UMBC, Morgan State University, and Delaware State University), the other four MSIs in Maryland (Bowie State University, Coppin State University, University of Baltimore, and University of Maryland Eastern Shore), and three other institutions across the U.S. that also have research administration internship programs. All interviews were conducted virtually and transcribed with Otter.ai. IRB approval was secured for the project, as noted at the end of this White Paper.

Part 3: Communication and Dissemination

For Part 3, communication and dissemination of the project model, our findings, and the overall need for student pipeline programs into research administration, we engaged the broader research administration community through our own hybrid conference as well as via local, national, and regional conferences focused on research and research administration.

Our culminating symposium was held in a hybrid format on April 26th, 2024 at UMBC. The conference convened 64 participants from 26 unique institutions from across the U.S., with three international participants attending virtually from institutions in Egypt, Pakistan, and Australia. The conference shared results from the internship program, featuring presentations and posters from the student interns and other team members. In particular, team members shared about the successes and challenges of the pilot program, while the students shared about their internship experiences, their feedback on the program, and their ideas for ways to promote the field to students as a career opportunity in general.

The project team and students have also attended and presented about the project at several academic and professional conferences. Two interns, a graduate assistant, and team members attended the 2023 NCURA Region 2 Meeting in Annapolis, Maryland. Several interns presented on their internship program experiences at their respective university's undergraduate research conferences. Team members also gave presentations at UIDP HBCU Engage 2024, National Sponsored Programs Administrators Alliance of HBCUs (NSPAA) 2024, and the Association for Public and Land-Grant Universities Council on Research (APLU-CoR) 2024 summer meeting, with additional presentations planned and in preparation.

The activities that were carried out across each of these three project parts yielded the insights that are presented in the remainder of this White Paper. In the section that follows, we discuss key outcomes from the project, organized by theme, with specific recommendations for future program development included throughout each thematic subsection.

Project Findings and Recommendations

In this section, we discuss key thematic findings from our GRANTS MADE pilot program as well as specific, aligned recommendations that are intended to be informative for other institutions that are seeking to develop their own model for a partnerships-driven, replicable, scalable, and sustainable research administration internship program.

Finding: Students are unfamiliar with, but interested in, research administration.

Our project built a bridge between undergraduate students, who are often unaware of the research enterprise and its career opportunities, and the research administration workforce, which faces a growing need to expand and diversify. In a panel hosted towards the end of their internship experiences, student interns reported not being aware of research administration in general or of career opportunities in this area prior to their internships. One student commented, "Research administration is a field that I did not know [about] until this internship. Being able to experience the processes and parts to making research possible is fascinating." Another reflected, following her experience in the internship program, "Research administration is a potential pathway that I could see myself pursue."

Increased awareness of research administration as a profession can "bring more legitimacy and interest" to the field as a potential career path for undergraduate students (Smith, 2019). To do so, research administration must be made more visible to students across the university.

Recommendation 1: Leverage existing institutional infrastructure to recruit students into an internship program.

Partnering with existing university career centers, which often already have an existing internship platform, can be a promising avenue for reaching students. Our project team also found success recruiting student interns from specific majors, such as advertising in accounting or career management courses. Academic departments' internal job boards and networks can also be a valuable resource for introducing research administration as a career to students in certain degree programs–accounting, for example–who may not be familiar with the research enterprise through their coursework, but who are equipped with relevant skills for managing a sponsored research project. At the same time, we found benefits to advertising widely about our

program and not limiting recruitment efforts to students only from certain disciplinary areas.

Recommendation 2: Reach across disciplines and programs to recruit students into research administration internships.

Formalized research administration majors or degree programs are few and far between at most universities. As a result, there is not one discipline typically or uniquely positioned to enter the research administration workforce. Though many research administrators have experience in disciplinary areas such as accounting, many others do not. In the words of one student intern who was interviewed for this project, "research administration does touch all corners of the university." To maximize recruitment, we advocate considering students from diverse disciplinary backgrounds. As one student noted, basic familiarity with Excel spreadsheets is a plus; beyond that, motivated students from any background can thrive with appropriate mentorship. Students from humanities and social sciences backgrounds may also have specific transferable skills in the areas of writing and communicating with PIs that are valuable but not often highlighted as important for research administration.

Finding: Students are looking for accessible, flexible, and engaging internship programs.

When setting up an internship program, we recommend a thorough consideration of the application process, compensation structure, and expected time commitment. To cultivate a strong, diverse pool of incoming research administrators, it is critical that internships are designed to be accessible and inclusive as possible, with particular attention to mitigating any barriers to entry. It is also important when setting up internships to consider the need for flexibility, to accommodate shifting class schedules and other student time commitments.

Recommendation 1: Offer paid internships where possible.

Paid internships can help ensure that students are not deterred from participating due to financial constraints. For this pilot project, for example, students received compensation in the form of a stipend issued to each student at the end of each semester, upon completion of duties. However, for future years, an hourly pay structure will be explored so that students are able to receive compensation on a biweekly rather than semesterly basis.

Recommendation 2: Set expectations for both in-person and remote work.

Students will have other educational and personal responsibilities and obligations that require balancing with internships. For this project, we recognized that being a student comes first. For example, interns discussed with their supervisors weeks where they had more time to devote to the internship and others (such as exam weeks) that they have less time, and they appreciated when mentors had reasonable flexibility in shifting work schedules.

Supervisors and mentors also set clear expectations for the interns about in-person versus remote work and whether tasks could be completed asynchronously. Interns are likely not to have worked in the area of research administration before, and they may need additional expectation-setting about the particulars of the work, including issues such as confidentiality and how to communicate with PIs.

Research administration as a field is faced with the need for a more diverse and expansive talent pool, as recruiting and retaining experienced research administration professionals proves challenging (Kayla et al., 2023). The onset of the COVID-19 pandemic exacerbated the challenges of employee recruitment and retention in research administration; furthermore, community-building within a workplace is an invaluable factor in retaining employees long-term more generally (Anderson, 2022).

Students in our internship program (who had spent several years of their educational journeys impacted by the COVID-19 pandemic) did in fact prioritize community as part of their internship experience. Our program intended to create a strong cohort experience for the student interns, facilitated by biweekly check-in meetings with interns from all three institutions and a faculty mentor. For this pilot program, those meetings were held virtually, but in future years we aim to hold several in-person meetings to facilitate cohort-building—at least one in-person get-together at the start, middle and end of the internship. Intermediate meetings can be virtual for ease of scheduling, but they could also include a mix of in-person meetings that could rotate across different participating campus sites.

To facilitate community-building beyond the timeline of the internship program, we created a LinkedIn group for the student interns to ensure that the professional relationships and support system they built over the course of the program will be maintained and strengthened as they enter the workforce as early-career professionals. We recommend similar efforts, whether through LinkedIn or other social networking sites, to foster community among interns or budding research administration professionals, not only to recruit students into the field, but to retain professionals long-term.

Finding: Students value hands-on learning, not just shadowing.

The chance to survey potential careers and hone professional skills through an internship is a valuable supplement to an undergraduate educational experience. In their internships, students learned a range of content and skills in their placements. They also generally preferred hands-on learning to shadowing.

Recommendation 1: Focus on skill-building with a mix of in-person and solo work.

We recommend internship experiences that balance shadowing and closely supervised work with opportunities for more independent hands-on experience. For our project, student interns often shadowed staff during their tasks and meetings, including routing, proposal submission, subaward setup, post-award monitoring, meetings with PIs and grant administrators. The shadowing experience was useful, and in many ways is an efficient way for mentors to provide training to interns. However, interviews with student interns following the conclusion of their placements revealed that students generally preferred opportunities for hands-on learning to shadowing. As one student remarked, "I really wish that I could have gotten more hands-on experience."

Recommendation 2: Consider placement in one office versus rotations across offices to maximize learning.

For this internship, students were placed in central research offices or shared services centers. Generally, this placement allowed them to gain a range of skills. For example, they learned the basics of sponsored research administration, including roles, responsibilities and terminology. They also learned University-specific policies and procedures, including pre-award and post-award. These included teaching students how to navigate grant opportunities databases, familiarizing them with pre-award support services (e.g., budget reviews, prep of internal processing documents), and providing them with training on proposal development and submission support for faculty and research administration staff (e.g., preparing budgets and budget justifications).

Students who are placed in a central research office and/or in a shared services center will likely learn about many areas of research administration. However, larger universities may have more offices or units involved in research administration. In those cases, a rotation model may be a good option for increasing interns' hands-on learning.

Students were also very interested in learning *about* research as part of this internship, and they were interested in understanding how research administration is often a behind-the-scenes partner in the research process. Interns can be encouraged to apply to present about their internship experiences at student research conferences. Doing so also raises the visibility of research administration as a field and a career pathway to other students.

Recommendation 3: Work early to set up space and systems.

Access to shared office space and computers were provided for interns to access when working; some of the students also appreciated the option to access the office on non-work days as a quiet space between classes.

Research administration work generally requires access to university systems, but access can take considerable time to request and be granted. This was a limitation of the current project, where it took a few months for some of the interns to gain access to all of the necessary systems. Nevertheless, gaining access to systems was crucial as

students were then able to engage in more hands-on tasks. Working ahead to establish intern access is planned for future iterations of the program.

Finding: Students are interested in formalizing their learning and skill building in research administration via credentialing.

In their internships, students gained many practical skills related to research administration, and they valued their hands-on learning experiences. Nevertheless, many of the research administration basics are well-suited to learning online. Online training courses would also provide an opportunity for credentialing, which students expressed interest in as a pathway to formalize and document what they learned.

Recommendation 1: Develop introductory research administration courses.

Many of the research administration basics are well-suited to learning online, and doing so would free up internships to focus on skill-building and hands-on learning. Ideally, courses would be online and modular, focusing on fundamentals, while internships would supplement that learning by focusing on applied, practical skills. A microcredential could then be attached to the completion of the basic course of study.

For example, the program "LevelUP for Basics of Research Administration," offered by SRA International, is self-paced and provides learners with an overview of "topics most relevant to the modern research administration professional, including pre-award administration, post-award finance, and regulatory and financial compliance." A microcredential is provided upon completion.

A certificate or microcredential for completing introductory courses would similarly provide a way to document student learning, in ways that would also encourage them to pursue careers in research administration. This is also the goal of additional current NSF-funded efforts to develop a toolkit that will align with a concentration or minor in research administration (Chronister and Brown, 2024).

Recommendation 3: Students are interested in certificates and minors in research administration but may still be more likely to gravitate toward established degree programs for their majors.

On a larger scale, there is also room for more programs in research administration to be developed and implemented at the undergraduate and graduate level. Currently, very few degree programs for research administration exist across the country (Smith, 2019). In addition to introductory courses on the fundamentals of research administration, more specialized courses can be developed for advanced undergraduate and graduate students that include topics such as developing budgets and managing a funded research project. Such courses would also likely be appealing to students in areas such as business and non-profit management.

At the same time, students expressed some reservations about whether they would pursue a degree program in what, for most students and their families, is a relatively unfamiliar field. For example, one intern who was a first-generation college student remarked that his family understands an accounting degree, but they would not understand what a degree in research administration is. For that reason, he would be more interested in a certificate in research administration that could complement his formalized degree in accounting. Certificates, concentrations, and minors may therefore be a useful strategy for credentialing (cf. Chronister and Brown, 2024) that also can serve as an incentive for recruiting talented students into research administration careers.

Project Impacts and Future Plans

This White Paper outlines some of the insights, best practices, and recommendations developed from the "GRANTS MADE" research administration internship program, led by UMBC, Morgan State University, and Delaware State University. Results from the GRANTS MADE program show the promising potential for developing a future, fully-fledged regional internship program to train students to meet the needs of the broader research administration workforce.

The students at our universities represent a sizeable, educated, diverse, and as yet largely untapped pool for expanding the research administration workforce. This project has helped promote greater access to the skills and knowledge required for careers in research administration to students who may not have had access to that information previously.

The GRANTS MADE model also demonstrates the efficacy and impact of partnerships across institutions of higher education that focus on growing talent and training the next generation. Internships contribute to education and workforce development while broadening participation in research and building research infrastructure. Connecting students at MSIs across our region with one another and to a larger professional and academic network, while simultaneously providing them with opportunities to gain hands-on experience in research administrative work, lays a foundation for students to enter into research administration while flattening existing barriers to entry for students interested in pursuing careers in this area.

By sharing the "grow your own" model that we have developed to invest in the next generation of research administrators through this White Paper, presentations, and other products in development, we hope to assist those at other institutions to invest in student pathways for expanding and diversifying research administration.

References

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Shareable resources

Shareable resources accompany this White Paper and are available to download from our GRANTS MADE project website, research.umbc.edu/grants-made/.

- UMBC internship program description
- Morgan State University research administration internship recruitment ad
- Delaware State University internship program recruitment flyer

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