University of Massachusetts Boston

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About This Report

The National Council of University Research Administrators (NCURA) is a national organization of over 7,000 members. NCURA serves its members and advances the field of research administration through education and professional development programs, the sharing of knowledge and experience, and by fostering a professional, collegial, and respected community.

This document focuses on sharing knowledge and experience as a result of the recently conducted review of the research administration area of sponsored programs. Our objectives are to provide the institution with feedback on the institution's management in support of research and to share recommendations and national best practices that might be considered at the institution.

While the review utilizes the NCURA Standards for Effective Sponsored Programs Operations, the Reviewers recognize that policies and practices vary at institutions and that not all Standards are applicable to each institution.

The NCURA Peer Review process is based on interviews with various stakeholders involved in research and research administration areas of sponsored programs. However, the NCURA Peer Review process does not necessarily validate information or data provided by individuals or departments in preparing this report. Further, the NCURA Peer Review does not evaluate personnel, nor does it perform an audit function. The results of this review, therefore, should not be used to make human resource decisions. It should not be used to evaluate departments outside the scope of the NCURA review (and is thus limited to use in assessments of Research Administration/Office of Sponsored Programs). Nor can the use of the results help assure fiscal, regulatory, or ethical compliance with federal, state, or local regulations. The recommendations offered in this review report should not be construed as an exhaustive list as these recommendations necessarily represent an analysis by a particular set of Reviewers and at a single point in time and based on interviews and procedures and processes of certain stakeholders and Research Administration/Office of Sponsored Programs procedures and processes that are contemporaneous to the issuance of this report.

Just as a decision to follow a recommendation cannot ensure regulatory or audit sufficiency, a decision by an institution "not" to adopt one or more recommendations does not necessarily mean that the institution is failing to meet legal requirements. Rather, the recommendations reflect an opinion of peer research administrators who are active in the field and familiar with structures and approaches at other institutions. There may, however, be elements of the local history, environment, or culture of which they may not have been fully cognizant. This document does not provide legal advice.

NCURA does not warrant that the information discussed in this report is legally sufficient.

The **Executive Summary** provides an overview of the report. The **Current Environment for Sponsored Programs** section discusses the many influences and pressures that have recently impacted research administration and created some of the current stresses. The remaining sections provide a detailed discussion of the Standards as applied to this institution and includes notable practices and recommendations throughout, along with the rationale for each.

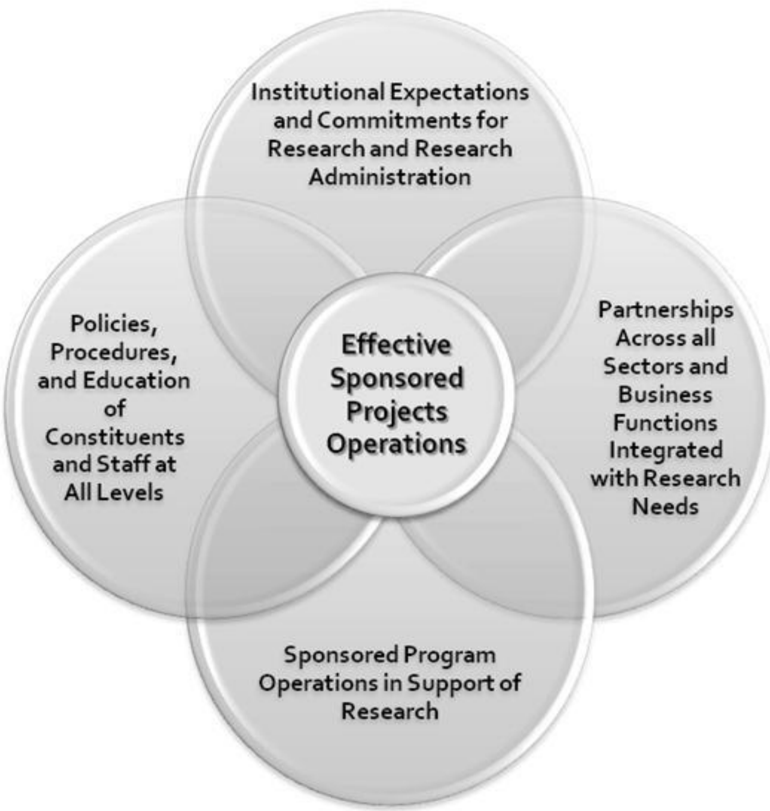
NCURA will treat the contents of this report as confidential and will not disclose nor distribute the report outside individuals affiliated with the peer review program. There are no such restrictions on how the institution chooses to utilize the report.

Executive Summary

The National Council of University Research Administrators (NCURA) would like to commend the University of Massachusetts Boston (UMB) for undertaking an open and comprehensive review of the research administration infrastructure. The strong support for administrative efficiencies and accountability is evident with the decision of institutional leadership and the community to engage in a process that allows all members to participate and contribute.

The NCURA Peer Review Program is premised on the belief that it is a critical part of this review process to include experienced research administrators who have significant careers and are engaged nationally. This external validation allows UMB to incorporate best practices and models into their final action plans.

An evaluation of the research administration of sponsored programs at the University of Massachusetts Boston was conducted at the request of Dr. Bala Sundaram, Vice Provost for Research and Dean of Graduate Studies (VPR). The evaluation was performed in September 2020 (See Appendix C for the Charge Letter and Appendix D for the virtual site visit itinerary) by a Peer Review Team from NCURA (Appendix B for Bios).



The Review Team carried out the review virtually due to the ongoing COVID-19 pandemic. Despite the pressures that UMB is facing due to this pandemic, the university community made themselves available for interviews and members of the community were both open and helpful to the Review Team. UMB should be commended for continuing to focus on improvements to their research environment even during this very challenging time.

The evaluation was framed by the Standards for Effective Sponsored Programs Operations (Appendix A) for the research administration of sponsored project activities. These Standards cover institutional expectations and commitments, policies, procedures and education, the central and unit-level operations supporting research and scholarship, and the relationship and partnerships across all institutional functions. This executive summary contains a number of key recommendations. This review does not prioritize recommendations; instead, the full report should be considered as the institution approaches prioritization of recommendations.

About UMB

The University of Massachusetts system is the major public university system in the Commonwealth of Massachusetts. The University of Massachusetts system consists of four comprehensive campuses (Amherst, Boston, Dartmouth, and Lowell), a medical school, and a law school, and the system has approximately 75,000 system-wide students. The system engages in significant research, with nearly $700 million in annual research expenditures.

UMB is a key comprehensive university campus with approximately 16,000 students and $47.3 million in research expenditures in the most recent fiscal year. UMB offers 207 undergraduate, graduate, and certificate programs through the university's 8 colleges and schools and draws students from 144 countries.

UMB has a stated mission of being a student-centered urban public research university with a commitment to diversity and engaging educational experiences. The university also has a stated commitment to expanding and applying knowledge for students and communities in Boston and Massachusetts, across the nation, and around the world.

UMB has more than 50 interdisciplinary research centers and institutes with focused expertise in biomedical, health and life sciences, sustainability, and inclusion. UMB also supports the Boston innovation ecosystem through the Venture Development Center, which has helped launch 35 cutting-edge technology and life sciences startup enterprises.

The university developed and published a comprehensive 2010-2025 strategic plan intended to provide a roadmap for becoming the university envisioned at the time. This strategic plan included a stated goal of enhancing the research enterprise and growing extramural funding by 5% to 15% annually to the level of $200-300 million. During the ten years since this report was issued, research awards have increased only modestly from approximately $50 million in 2010 to the current level of $56 million in 2020.

UMB utilizes both a central and distributed model for supporting and growing the research enterprise. The VPR and Office of Research & Sponsored Programs (ORSP) provide central support and strategy for the research enterprise while the Deans, Department Chairs, Center and Institute Directors, and local research administration professionals provide distributed support. ORSP has a large decrease in staffing and a high level of turnover during five years prior to this report, due to fiscal pressures that the university has faced. The Review Team was unable to determine whether local support has grown, decreased, or remained the same during this same time period.

During the virtual site visit, university research leadership indicated its interest in working with new campus leaders to setting a new goal of external funding per year along with a plan for enhancing research infrastructure and faculty research-related incentives to make the goal realistic and achievable.

This review provides many recommendations to support these goals in four main categories: Institutional Commitment and Leadership; Coordination and Collaboration; Enhancing Procedures and Processes; and Support and Staffing.

Institutional Commitment and Leadership

Although the university leadership has an expectation of being a premier public research university, the practices related to research have led to the university community questioning this commitment. Currently, the Provost represents research leadership but the VPR is not represented in cabinet level leadership meetings. The university does not have a standing committee or council of research leaders that focuses on moving the research enterprise forward through support and resources. Additionally, there is no clear roadmap for growing research and no significant investments being made in ensuring that the research enterprise flourishes and that faculty have the resources and support needed to carry out their work.

The Deans reported that research is a priority and that they attempt to support it within the colleges as much as feasible. However, there is limited coordination between central administration and the Deans related to research support and growth. The Deans also indicated that they are more reactive than proactive as it relates to research.

Although research is an expectation for tenure line faculty, the faculty reported very little communication and support from the university's executive leadership related to research. They believed that the university instead was primarily focused on the teaching and community engagement missions and that faculty were left largely to find their own way in pursuing their research goals.

In order to grow the research enterprise as envisioned in the 2010-2025 strategic plan or as stated during the virtual site visit, UMB will need a clear and consistent level of support from executive leadership at the university. The VPR and Associate Vice Provost for Research (AVPR) will need to coordinate closely with the Provost, Chancellor, Deans, and other university leaders to develop a strategy to prioritize and communicate about the university's research mission and goals in the coming years.

Coordination and Collaboration

In addition to significant engagement with senior leadership, the research enterprise could benefit from closer engagement with university business unit partners, such as advancement, human resources, and fiscal services. The university research community expressed many concerns about inefficient processes that led to significant challenges with carrying out research activities.

When the university accepts externally sponsored funding, the university commits to the sponsor to carry out the activities proposed. The research community shared concerns about significant delays in setting up awards once received and issues of timeliness in terms of being able to hire staff and students on awards, being able to issue subawards, and being able to make significant purchases on awards. The Review Team also heard about very late billing and close-out of awards to the point where sponsors indicated that they may not be able to reimburse the university for expenses due to the very late billing.

As a whole, these issues led to high faculty frustration and also the potential for the university to be seen as a suboptimal partner for collaborators and sponsors. Indeed, faculty reported situations in which they did not want to run awards through the university due to this high level of frustration. Resolving these issues will require deep collaboration and engagement with the university business units to identify solutions to the challenges that the research community faces.

Enhancing Procedures and Processes

Many of the university's procedures, letters, and process documents are quite dated. Through the recommendations made in this report and engagement with university leadership and business unit counterparts, the VPR and ORSP will be able to identify opportunities to enhance research-related procedures and processes.

The university is also in the process of implementing an electronic research administration suite, Kuali Research, that will enable many process improvements. This report highlights several disconnected areas, such as pre- and postaward and research compliance, that will benefit from an integrated electronic system. However, implementation of any electronic system is dependent on integration with other systems, as well as process redesign, adequate staffing for implementation, and user education. The university should be sure to attend to these very important elements when implementing the new electronic research administration system in order to ensure that UMB realizes the full benefits of an integrated electronic research administration system.

Additionally, there are inefficiencies in the system that will not be addressed by implementation of the electronic research administration system. As conversations and enhancements proceed, the procedure, letter, and process documents should be evaluated against current practice at UMB and the broader national research community to identify opportunities for enhancements, as well as inaccuracies and deficiencies.

Support and Staffing

A final major concern raised during the virtual site visit was the level of support for and staffing of the research enterprise. The university provides very limited research development and internal funding support that enable faculty to more efficiently pursue and position themselves to be awarded external funding. The Review Team repeatedly heard about understaffing in ORSP. There are positions within ORSP that remained vacant for years when staff left due to lack of approval to proceed with hiring. There are also significant concerns about compensation levels for research administrators. This has led to hiring of inexperienced administrators, impacting the quality of service to faculty during the period they are trained and become experienced. Additionally, the Review Team heard that, once trained and experienced, these administrators often leave the university for other employment due to higher levels of compensation at other local universities and research institutions.

Staffing alone will not resolve the inefficiencies observed at UMB. In addition to ensuring a level of staffing that is consistent with national peer universities, UMB should evaluate both business processes and staff competencies to ensure the right mix of process and staffing improvements. The university should also strategically invest in research development efforts to support enhanced faculty ability to efficiently and effectively pursue external funding opportunities.

The Peer Reviewers wish to express their gratitude to UMB, and especially to ORSP, who contributed to the compilation of materials that were provided to the Review Team, as well as to the assistance and hospitality provided during the virtual site visits.

The notable practices and recommendations from the report are listed throughout the report. Each notable practice and recommendation includes a description and rationale.

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Current Environment for Sponsored Program Operations

Any institution that is focused on research or on developing a more research-intensive program or higher volume program faces a number of challenges. On one front is the challenge to embrace the culture of the institution and those existing or emerging priorities as they relate to sponsored program activities. On the other front is the challenge to build or sustain an infrastructure that can nurture, facilitate, and support the growing demands of a research enterprise and meet both faculty expectations and institutional accountability.

Any research enterprise brings a measure of risk, accountability, and oversight to the institution that has not been previously apparent, or that has been apparent to a lesser degree. These measures are in response to a parallel growth in attention by the federal government that is evidenced by escalating policies, regulations, and oversight. This increased involvement of the federal government in sponsored programs oversight has resulted in the need for higher degrees of specialization and education on the part of institutional sponsored programs staff. Institutions now, more than in the past, maintain a delicate balancing act between developing the infrastructure for facilitating and moving forward research activities of their faculty and staff and providing sufficient oversight and internal controls to demonstrate accountability and to mitigate risk.

Recently, institutions have been especially impacted by the external environment. Reduced funding, increasingly large-scale and multi-disciplinary research, increased focus on data security, and collaborations with foreign scientists and business in conjunction with intense scrutiny on international activities have all contributed to complex relationships and issues of ownership. The recent federal attention on institutional operations through audits, whistleblowers, and investigations has not only exposed our institutions to the public but has brought increasing levels of Congressional attention. The resulting attention on how institutions manage their relationships and the use of the public's funds often results in tighter institutional controls and more restrictive policies imposed on both the institution and faculty.

Many of our institutions are now recognizing that the growth of infrastructure and specialized expertise has not kept pace with the complexity of the current-day research relationships and the attention to government regulations and policies that are inextricably intertwined with the external funding.

The infrastructure supporting sponsored programs is always complex and it requires a periodic review to determine if it efficiently supports the efforts of investigators while also offering an adequate compliance posture with the regulations that underlie federal funding.

This general discussion of the current national environment within which all sponsored programs operations exist and the special challenges for transitioning institutions will serve as a foundation for the more specific discussion of this report.

Institutional Planning and Investment in the Research Enterprise

I. STANDARD for Institutional and Research Planning.

> The institution has defined priorities and strategic plans as related to research, and consistent messaging occurs at all levels. An institutional commitment to research and sponsored projects and the commitment to research administration infrastructure is clearly evident at all levels of the organization as appropriate to the institutional size, culture, mission, and strategic plans. Research administration leadership has clearly articulated action plans and metrics that support and advance the institutional research priorities.
>
> Institutional leadership expects regular and thorough assessments of the effectiveness of research administration.

The University of Massachusetts Boston (UMB) is an urban research university with nearly 17,000 students. UMB is categorized by the Carnegie Classification of Institutions of Higher Education as “R2: Doctoral Universities – high research activity.” In fiscal year 2020, UMB submitted 323 proposals amounting to approximately $108 million for external support, they received 417 awards totaling approximately $56 million and their research expenditures were approximately $46 million. They receive funding from a broad set of sponsors including federal agencies such as the U.S. Department of Education, the National Science Foundation, and National Institutes of Health, as well as the Commonwealth of Massachusetts, local governments, private industry, and nonprofit organizations.

The research enterprise is led by a Vice Provost for Research and Dean of Graduate Studies (VPR) who reports directly to the university’s Provost. The Office of Research and Sponsored Programs is led by an Associate Vice Provost for Research and Director of the Office of Research and Sponsored Programs (AVPR), with an Associate Director of ORSP Preaward Support Services leading preaward, an Assistant Director of ORSP Postaward Support Services leading postaward, and a to-be-hired Assistant Director of Research Compliance to lead research compliance activities.

The university has a distributed model of research administration with ORSP providing central research administration services and administrators in some of the colleges, departments, and centers/institutes providing local research administrative services (unit research administrators).

The University of Massachusetts Boston strategic plan, completed in 2010, articulates a vision and mission for research at the university. This strategic plan was intended to be a long-range roadmap from 2010 – 2025. The specific research objective outlined in the plan included increasing extramural funding by by 5 to 15 percent annually, putting extramural funding at between $200 and $300 million dollars by 2025. To reach this objective, one of the items to be addressed was developing an infrastructure supportive of that goal including conducting "a comprehensive review of the mission, staffing, and technical capacity of the Office of Research and Sponsored Programs." That review did take place in 2011 – 2012 and was carried out by Huron Consulting Group. Huron provided a number of recommendations but many were not fully implemented and the university has made very little progress toward the funding goal at this point with awards increasing only slightly from approximately $50 million in 2010 to approximately $56 million in 2020.

In order to reach an ambitious goal such as growing research from approximately $50 million to $200-300 million, it takes coordinated and consistent leadership in addition to infrastructure to support the faculty researchers proposing and receiving funding. There does not appear to be a significant and deep engagement of senior university leadership or the Deans in the research strategy and implementation at the university.

Although approaches vary to fully integrating research throughout universities, a sense of shared commitment and regular discussion about the research enterprise is critical to the success of research at any university. The VPR does not participate in executive leadership meetings in order to consistently share information about the research enterprise. Many areas of the university (e.g., human resources, finance) appear to work as separate functional areas not fully coordinated with the research enterprise. The institution also lacks a research advisory board or similar body of leaders to support and advise the VPR on important institutional research strategy and policy.

- **<u>Recommendation</u>: The VPR should consider constituting a research advisory board consisting of leaders with responsibility for the research enterprise.** Members could include the AVPR, Deans, Associate Deans for Research, and key leaders from other areas of campus such as finance, information technology, and advancement that the research program interacts with and relies upon for success. This group should meet monthly to share information and discuss research issues and solutions.

Tenure-line faculty at UMB are expected to conduct research as part of their role with the university. Faculty and college leadership shared that teaching, research, and service are part of the tenure evaluation and that excellence in two out of three is a requirement. Although research is part of the university's mission, the college leadership and faculty felt that support for and clear communication about the strategic priorities for research was lacking. There was also confusion about whether there were specific areas of research focus, with some individuals recalling an effort to identify research strengths and others reporting that they were unaware of an identification of research strengths.

At many research universities, a separate strategic planning process is undertaken with research and college leadership to identify areas of research priority and strategy for investments in the research enterprise. This provides an institutional roadmap for investment and growth and also ensures alignment across the university. At UMB, it was reported that each college supports and prioritizes the research of their own faculty, that there have been some efforts to support research activities across colleges, but that there was a desire for a university level strategy and collaborative support.

- **<u>Recommendation</u>: The VPR should work with the Deans on a strategic planning process to identify priorities for and ways to support the research program.** This should lead to a shared vision that is documented and readily available for the university community to access. These priorities should be communicated broadly to the campus community and supported collaboratively so that the research community understand a clear vision and strategy for research.

As detailed in more depth in Standard V, research administration support for faculty researchers has not been analyzed holistically for strengths and gaps. In the colleges, departments, and centers, research administration staffing has grown organically, leading to full local support for some faculty and no local support for others. Additionally, ORSP is not currently being supported in the way that would be expected for an institution the size of the University of Massachusetts Boston and with the goals stated in the university's strategic plan.

There was broad agreement that some processes that are necessary for supporting research are slow, and that some faculty are burdened with administrative activities that are more typically done by research administrators. There was a general sense that the university has some good research administrators, but simply not enough of them. This has led the faculty to believe that research administration is not prioritized or supported by the university.

- **<u>Recommendation</u>: The VPR should prioritize staffing centrally and work with the Deans to evaluate their staffing for research administration within the colleges and departments.** As described fully in Standard VIII, the AVPR should continue efforts to provide regular training for and communication with all research administrators.

The VPR and AVPR set specific, actionable, and measurable goals for research administration for AY20-21 as detailed in the *Vice Provost for Research and Dean of Graduate Studies AY19-20 Annual Report*. These goals include:

- Stabilize the staffing levels in the office, by both using strategies to retain key staff members and by filling vacancies.
- Implement the central office module of Kuali Research and start Kuali Research Proposal Development (PI/department module) rollout.
- Fill the 'export control' position shared with the Office of Global Programs, where the position description has been expanded to cover larger research compliance/ethics responsibilities.
- Generate/deliver 100% of grant invoices within 30 days; reduce Allowance for Doubtful Accounts to best practice levels; eliminate grant over-expenditures with better reporting to PIs; increased management reporting; decrease time to setup from award execution to communication of setup to PI.
- Increase exposure of graduate fellowships to graduate students and their mentors. Work more closely with Graduate Studies on the communication and implementation, which is fully aligned with the larger Graduate Student Success effort.

Meeting these goals would improve support for research and address some shortcomings regarding compliance with sponsor expectations described throughout this Peer Review report. One striking omission from this annual report is a discussion of higher-level research strategy and investment. Many of the recommendations made in this Peer Review report speak to these issues.

- **<u>Notable Practice</u>: The goals described in the annual report are specific and measurable and they show an awareness of the shortcomings of research administration at the university.** This specific and actionable planning is appropriate and needed in a research university.
- **<u>Recommendation</u>: The VPR may wish to reconsider inclusion of compliance risks in a public document such as the Annual Report if it has the potential to be shared with funders or the general public.**

The Office of Research and Sponsored Programs (ORSP) currently provides reports to the colleges about the status of their research proposals, awards, and expenditures on an annual basis. Research leadership in the colleges and faculty indicated they would like to see this information more frequently; see Standard VII for additional discussion of distribution of research information to the colleges. Additionally, senior leadership (e.g., the Provost and Chancellor) do not currently receive regular formal updates on the health of the research enterprise and instead receive the same annual report as the Deans.

- **<u>Recommendation</u>: The VPR and AVPR should prepare quarterly research updates on activity, projects of note, and goals for senior university leadership.** While the VPR has a focus on both research and graduate studies, the messaging should be separated with research as a stand-alone report, otherwise the focus on research is diluted. This should likewise be considered for the annual report. The AVPR may wish to post this information to the website where it is accessible to the entire research community.

The current NCURA Peer Review represents the first official review of effectiveness of research administration that the University of Massachusetts Boston has conducted since 2012. At many institutions, there is increasing attention on critical administrative operations and the need for a regularly occurring review cycle, as is found in academic program reviews to maintain academic accreditation. While the form for such review can be varied (internal or external), the process establishes an expectation for attention to the operational efficiency and effectiveness, how well that operation succeeds in a fluid environment, and a venue for faculty and staff to comment on process.

There are a number of techniques used by institutions to periodically review the efficiency and effectiveness of administrative operations, to assess processes for areas of improvement and currency, and to review for compliance or risk.

- **<u>Recommendation</u>: The VPR should consider the value of establishing a regular review cycle for the research administration functions and oversight areas.** Having a regular, established review cycle rather than ad hoc reviews can be helpful in ensuring the university is regularly evaluating the effectiveness of operations and not overlooking important compliance requirements.

II. STANDARD for Institutional Investment in the Research Enterprise.

> The relationship of research to institutional strategic goals is reflected by commitments to areas that support research (such as seed or bridge funding, shared core facilities, release time). This level of financial and other types of support is understood by the institutional leadership.

UMB has invested in a modest way in the research enterprise. There has been regular seed funding in a limited capacity. Seed funding is offered at up to $10,000 through the Joseph P. Healy internal grant program for Assistant Professors prior to tenure.

Several other seed funding programs are offered in amounts of up to $7,500 for individual faculty to pursue research and scholarly projects. This seed funding is offered either centrally or within or between colleges. The seed funding offered centrally does not appear to be coordinated with that offered by the colleges. The seed funds can be used for equipment, supplies, and/or to compensate a student assistant but currently cannot be used for a course release.

The faculty were appreciative of this support; however, it was clear based on faculty interviews that these limited grants were insufficient to collect pilot data or form new partnerships that make faculty more competitive for external funding. The university does collect a final report from faculty funded internally but does not perform any analysis of the outcomes reported.

- **<u>Recommendation</u>: The VPR and Deans should evaluate investments in seed funding and work collaboratively to determine best approach and level for these investments.** Typical seed funding at research universities that would permit pilot data collection is in the range that would cover a Graduate Research Assistant (GRAs) for an academic year and research materials. Making larger seed funding awards available will facilitate the formation of the multidisciplinary teams needed for many large funding opportunities. The university should also evaluate whether there are situations in which a course release might be used as an incentive for faculty to conduct research, scholarship, or creative activities and/or use the time to apply for external funding. Finally, the VPR should ensure that an analysis of outcomes is performed from the seed funding investments so that the value of these investments can be evaluated and communicated broadly.

The distribution percentages of recovered Facilities & Administration funds, called Research Trust Funds (RTF), is in the typical range for a research university. That is, the percentage retained centrally and the percentage distributed to the units is in the range typically seen at research universities. However, at UMB these funds do not automatically carry forward from year-to-year but can be made available with a plan approved by A&F/OBFP. This inhibits the ability of the VPR and the academic units to make strategic investments in the research program. The Review Team heard from the finance team that these funds could be carried forward with a simple request but the general perception from the research community was that these funds either could not be carried forward or were very difficult to carry forward and could only be used for capital investments. At research universities, these funds are typically used to enhance start up packages, support seed funding, support GRAs, invest in equipment, and similar research enhancement activities. Although at UMB these funds can be used for these purposes, without the ability to easily carry RTF from year-to-year, many of these strategic investments cannot be made.

- **<u>Recommendation</u>: The VPR should work with the Vice Chancellor for Administration and Finance to determine whether RTF might be carried forward more easily to utilize for strategic investments in research.** This could include evaluation of the way that other University of Massachusetts campuses handle this issue. Additionally, there may be communication issues leading to this lack of carry-forward by the research community. The VPR should ensure that the process is clearly communicated once fully understood.

Universities invest in core facilities to provide on-site resources (equipment and technical) that faculty would otherwise have to seek elsewhere and to gain efficiencies by sharing high-cost equipment rather than individual faculty procuring this equipment for individual lab use. The university provides access to the equipment and/or technicians that run the equipment on behalf of users at a set fee per usage.

The investment in and creation of core facilities does not currently appear to be detailed in the university strategic plan. However, recognizing the advantage of providing this service in a growing research enterprise, UMB recently created several core facilities to support both the university research community and surrounding industry. Additionally, the university was able to take advantage of a funding opportunity for major research instrumentation from the Commonwealth of Massachusetts to purchase several of the large pieces of equipment used in the core facilities and is able to take advantage of another Commonwealth program that provides vouchers for small businesses to use the core facilities at universities.

The university has created several core facilities and maintains a website detailing these facilities (https://www.umb.edu/orsp/research_core_facilities). As part of this process of creating the core facilities, the university developed a core facility process requiring a business plan and rates for each core facility. The core facility structure appears to be well designed and the faculty directors managing the core facilities are very knowledgeable. One core facility has a full-time technician, and the others are supported by graduate students. None of the core facilities currently bring in enough revenue to cover the costs of preventative maintenance contracts for equipment or the replacement of equipment. There did not appear to be a plan for how these costs would be covered in the future when the preventative maintenance contracts that came with the equipment expire or when the equipment reaches the end of useful life.

Rates are set for internal and external users and internal users may use either institutional or sponsored funds to cover these costs. The core facility faculty directors indicated that a rate increase would be difficult for the research community to bear and that they would prefer to have professional staff rather than graduate students managing the research they support in the cores. There is a plan to assess the rates annually, although, since the cores are relatively new, that had not yet occurred. Any annual review should include both ORSP and the Controller's office to ensure appropriate rates are agreed upon by both units.

- **Recommendation: The AVPR should work with the core facility faculty directors and the Controller's Office to develop a plan for covering the costs of preventative maintenance contracts and replacement equipment for core facilities.** The AVPR should also work with the core facility faculty directors to determine whether a full-time technician might be brought on to replace graduate students, possibly shared between two cores if needed.

Research Enterprise Components and Structure

III. STANDARD for the Research Administration Organization.

Senior research leadership is represented in key academic and institutional groups and relevant shared governance or research advisory bodies have clear linkages with research administration. The institution has identified offices and structures that support the overall management and administration of the research enterprise. In particular, there are offices responsible for the management of externally sponsored programs. There are defined and broadly communicated roles, relationships, and authorities between sponsored program offices, both centrally and where sponsored program functions may reside in different institutional sectors. Effective operational processes exist between sponsored program activities and business functions, such as travel, procurement, accounts payable, and HR. Regular communications occur between sponsored programs areas that reside centrally. Where sufficient research volume and activity warrant, the institution has addressed the research administration infrastructure needs that exist outside the central operations.

The VPR does not attend the Chancellor's highest senior leadership meeting (Chancellor's Cabinet) because the Provost represents research and the VPR is therefore unable to raise points important to the research enterprise during these executive level conversations. The Executive Leadership team includes both the Provost and Vice Provost for Research and Dean of Graduate Studies. It is unclear whether the VPR is attending these meetings representing research, as Dean, or in both roles. The AVPR does not currently participate in the Deans meeting and is not represented on university councils or boards where input from the research enterprise might be important.

- **<u>Recommendation</u>: The Provost should assess whether the VPR and/or AVPR should participate in important council/board meetings so that research-related issues may become a regular part of these conversations.** The Provost should advocate for the VPR and/or AVPR to participate in these councils as appropriate. As described in Standard I, the VPR should consider forming a research advisory board.

ORSP has preaward, postaward, and research compliance sub-units and is responsible for ensuring the university meets sponsor requirements and expectations. Colleges, departments, and centers also hire research administrators and assign research administration duties to general financial administrators to support faculty locally. There appears to be variable skill sets for these local unit administrators and also variable support within the academic units, with some units providing very high levels of research administration support and others providing very little or no local research administration support for faculty. The university does not have a research development function. ORSP has been struggling to manage workload due to unfilled vacancies and institutional process and coordination issues that exacerbate the workload concerns. Standard V includes an in-depth discussion of these research administration support issues.

The university has a very well-developed roles and responsibilities matrix that specifies roles for ORSP, local unit administrators, and PI. However, research administration individuals interviewed (both in ORSP and the units) did not always understand clearly the role of ORSP compared to the unit level research administrators. This matrix did not appear to be readily available on the website and it was unclear whether faculty were familiar with the matrix.

- **<u>Notable Practice</u>: UMB has a well-defined roles and responsibilities matrix that can be utilized as an educational tool.** To fully realize the benefit of this matrix, it should be posted on the website and distributed broadly and consistently.
- **<u>Recommendation</u>: The AVPR should utilize the roles and responsibilities matrix when discussing research administration support with Deans and others.** Using and reiterating the matrix as a tool will help educate the university community on the local needs within colleges, departments, and centers. The matrix should be evaluated over time to ensure that roles and responsibilities are appropriately placed, minimizing administrative burden on the faculty whenever possible.

In research universities, it is typical for research administrative support services to be provided both centrally and locally. The central office typically has overall responsibility for promulgating policies and procedures, has authority to act on behalf of the university, and serves in an educational and coordinating role. Local research administrators typically work directly with faculty on preparing proposal elements, such as budgets, and on postaward activities involved in the administration of sponsored projects, such as purchasing, sending reminders of deadlines, reconciling accounts, and the like. At UMB, the Review Team heard that local support was variable, with some faculty receiving full support and others receiving no support. This is not atypical in a growing research enterprise but can lead to frustration and disparities for faculty in those units where local research administration is not provided. This issue is further explored in Standard V.

Connections between ORSP and other units seem to be almost entirely focused on reacting to problems as they arise. The AVPR also serves as the Director of Sponsored Programs with significant operational responsibilities. These operational responsibilities include:

- Supervising staff responsible for day-to-day sponsored projects proposals and award management.
- Responding to questions and concerns about specific proposals and awards from the university community.
- Developing and managing procedures for proposals and awards as well as research compliance activities.
- Communicating with sponsors about issues that arise on projects.
- Developing policies and procedures for core facilities and oversight of those facilities.
- Troubleshooting internal issues that arise related to sponsored projects.

These operational responsibilities appear to not leave enough bandwidth to focus on more strategic priorities, such as closely connecting with business units and proactively approaching support for research.

- **Recommendation: The VPR should consider splitting the position of Associate Vice Provost for Research from that of Director of Sponsored Programs.** Filling both positions with a full-time person will allow each person to focus on their position's relevant functions. The Director role could focus on the day-to-day operational activities and the AVPR could focus on making sure research integrates more seamlessly with business and academic units. As more fully described in Standard V, the university may wish to engage an experienced retired research administrator for either the AVPR or the Director responsibilities in order to provide an interim solution while a permanent position is designed and funded. The AVPR could also focus on initiating and assessing staffing needs for research development activities as described in Standard XVII.

Those interviewed during the virtual site visit clearly understood that the AVPR serves as the authorized representative to interact with sponsors on matters related to sponsored programs and indicated that if a problem were to arise related to a project they would contact the AVPR. The university has other authorized representatives for routine matters, such as submitting proposals, but it was generally understood that the AVPR would need to be contacted for issues or concerns that arise related to financial matters. However, individuals were less clear on who would report research compliance matters to sponsors, such as problems with human subjects or animals on funded research.

- **Recommendation: The AVPR should ensure that members of ORSP and the campus community understand that the AVPR serves as both the authorized representative for the university and the institutional official and therefore should be the individual interacting with sponsors on all matters related to sponsored projects.**

It is not clear that ORSP has actually identified the full range of individuals who serve as local research administrators. The Review Team was unable to obtain a definitive listing of individuals from the units who were engaged in research administration (at any level).[1]

- **Recommendation: The VPR and Deans should work together to ensure full support for researchers.** In order to accomplish this, the ORSP leadership should identify department, college, center, and institute staff engaged in research administration tasks and determine what research administration tasks those individuals are completing. This may require individual discussions or asking the colleges to collect detailed information from their departments concerning such personnel. Included in data collection should be name, title, estimated effort on research administration, and a checklist of functions they perform.

IV. STANDARD for Advisory or Other Standing Committees that Support the Institution's Research Enterprise.

The institution has developed appropriate advisory and/or standing committees to foster communications concerning the research enterprise. Members of such committees have a clear understanding of their and the committee's role, as well as expectations for interfacing with the broader institutional community.

[1] A listing was sent to the NCURA Review Team, but there were guesses as to how much effort the unit-level individuals provided in research administration and a comprehensive and detailed listing of exactly what services were provided by the unit-level was not available.

The University of Massachusetts Boston has a subcommittee of the Faculty Council that focuses on liaising and communicating with administration to try to address any challenges, barriers, and areas of concern that faculty face when trying to fulfill their research agendas. This group is elected by the Faculty Council and represents various units. The faculty council takes up issues on behalf of the faculty and works with the VPR and AVPR on those issues. They appear to do a good job of engaging other faculty on campus to understand challenges that exist. However, the VPR and AVPR do not have other standing advisory groups. In the short term, while addressing the recommendations in this report, the VPR and AVPR could use additional faculty input from experienced researchers.

- **Recommendation: The VPR should consider forming a research active faculty advisory committee consisting of senior research-active faculty.** This would enable additional faculty input directly from the group that is impacted by policies, procedures, and practices related to the research enterprise. This group could bring forward various issues that impact their ability to seek funding and manage that funding once received. The AVPR should be an active participant in this group, providing feedback and leading the implementation of solutions that are cross-cutting with other administrative units.

ORSP does provide training to departmental research administrators via a grants forum initiative. This has been attended by approximately 15 administrators per session and by all accounts has been a successful venue. This has been challenging to sustain with the current staffing and has focused primarily on preaward. Training for research administrators across the university is further discussed in Standard VII and VIII.

V. STANDARD for Research Administration Staffing and Staff Development.

The institution has invested in and committed to a sufficient number of staff to (1) support the core functions of the research administration operation, with emphasis on sponsored programs administration, and (2) meet obligations to sponsors and comply with governmental and locally mandated regulations.

The institution has an appropriate research administration staffing plan that contains elements of recruitment, retention, professional development, and succession for key positions.

Where sufficient research volume and activity exists or where operations are decentralized, the institution has unit-level research administrators residing at the department, school/college, or organized research unit level.

UMB ORSP currently has twelve staff members:

- the AVRP.
- the Associate Director of ORSP Preaward Support Services, with three grant and contract administrators (GCAs) reporting to that individual.
- an Assistant Director of Research Compliance (currently in the hiring process), with two research compliance specialists reporting to that individual.
- the Assistant Director of ORSP Postaward Support Services, with four financial research administrators reporting to that individual.
- ORSP retains two Attain consultants who support postaward functions.

Additionally, there are approximately thirty administrators in colleges, departments, and centers that support research administration, ranging from staff with full-time research administration responsibilities to staff who dedicate only a small percentage of their time to these responsibilities.

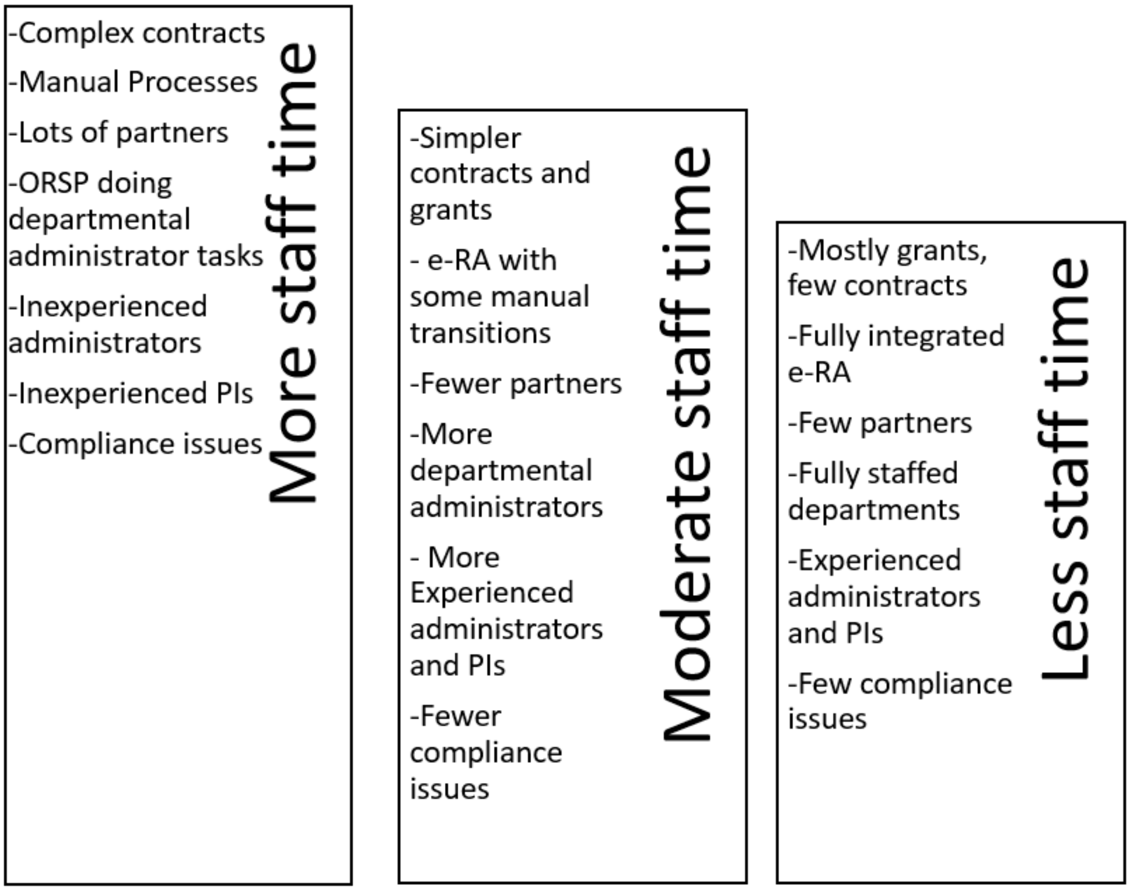
UMB does not have a process to align staffing needs to growth in size or complexity of the research enterprise. Coupled with that, the university experiences a high degree of turnover in research administration positions, both centrally and at the unit level. The university has brought on two consultants to supplement the ORSP team, but even with the consultants on staff, lengthy delays are occurring in many of the services that ORSP provides (see Standard XXII for further discussion of specific delays). These lengthy delays seem to suggest that staffing is too low, and the Review Team heard from individuals across the university that they believe ORSP is understaffed. However, there are various other levers that can lead to an increase or decrease in needed staffing.

- **<u>Recommendation</u>: The AVPR should consider hiring a retired research administrator for a defined period of time to support the strategies and actions needed to enable ORSP to fully and efficiently support research administration at UMB.** This same individual could identify inefficiencies caused by policies, procedures, practices, and ways in which electronic tools might better support research administration. Finally, this same individual could also evaluate support for faculty locally within colleges, departments, and centers to determine where gaps might exist.

There are developed tools for assessing workload from a sponsored programs complexity standpoint (general staffing levels needed depending on various factors regarding the complexity of the operations). This can be coupled with an assessment of the individual capacity of staff members based on their experience and capabilities as well as a time and motion study. Some issues to consider regarding necessary staffing include:

- Types of funding received: number of contracts (higher complexity) vs. grants (lower complexity); number of contracts with private for-profit organizations (much lengthier to negotiate) vs. federal agency grants (mostly standard templates with little negotiation); number of different sponsors.
- Number of partners: number of sub awards; number of awards from private and non-federal primes; number of statements of work to gather; number of high risk subrecipients.
- Tasks being performed by ORSP during pre- and post- award administration: developing PI checklists, supporting budget development, assisting with supplementary documentation, billing cycles, reporting requirements, needing to notify PIs when reports are due, etc.
- Experience level of staff: experience in research administration generally; experience with the sponsors they are supporting; experience with the PIs who they are supporting.
- Number of manual processes at the university that take staff time to input vs. utilizing an electronic research administration system that seamlessly transfers data.
- Training and compliance issues: Inexperienced vs. experienced PIs; compliance issues arising that must be assessed and reported.

The following schematic provides some of these considerations.



- **<u>Recommendation</u>: In addition to filling current vacancies within the department, the AVPR should assess these other levers (e.g., current staffing capabilities and complexity of work) and use available tools to assess staffing needs.** The implementation of an electronic research administration system, described more fully in Standard XIII, has the potential to decrease time needed for staff to manually input data and manually pull in sponsor requirements. However, the university will need to ensure appropriate training for ORSP and other administrative units as the system is rolled out in order to fully realize the benefits of this system. Additionally, PI and departmental administrator training, both related and unrelated to the electronic research administration system, also has the potential to significantly reduce needed staff time, see Standard VIII for a full discussion of training recommendations.

UMB is currently using two very experienced Attain consultants for postaward functions, including grant accounting and billing and interacting with sponsors to resolve postaward financial issues as they arise. The use of consultants to fill gaps in staffing is an expensive proposition that is unlikely to provide the relationship building benefits experienced between PIs and permanent staff. Although the current consultants are highly experienced and can likely support troubleshooting the issues described in this report, using consultants instead of permanent staff for these functions does not appear to be a sustainable solution. In general, the Review Team heard that the university has not had enough research administration staff and does not have enough staff to fill in during ORSP vacancies which has led to the use of consultants. Despite using consultants, the research community reported long delays in award set up and postaward functions. A time and motion study in which employees are assessed on the amount of time being taken with various tasks, could be very helpful in understanding needed staffing.

- **<u>Recommendation</u>: The AVPR should assess the tasks being assigned to the highly experienced Attain consultants and determine an approximate time period that these consultants might serve a function within ORSP.** The consultants might be utilized to perform tasks that staff do not have the time and/or expertise to complete which might include cleaning up backlogs related to billing and closeout and troubleshooting issues.
- **<u>Recommendation</u>: The AVPR should task the Associate Director of ORSP Preaward Support Services and the Assistant Director of ORSP Postaward Support Services with carrying out a time and motion study with each of their teams.** This study will enable identification of inefficiencies and areas where staff may need additional training or support. Such a study will additionally point to process inefficiencies that need to be addressed.

ORSP does not have a succession plan for key positions, including the AVPR, the Associate Director of ORSP Preaward Support Services, and the Assistant Director of ORSP Postaward Support Services. Due to many factors, the department has experienced a high level of turnover. This near constant turnover in staffing results in the need for increased staffing due to the inexperience of the staff – both inexperience with research administration and inexperience with the PIs to which they are assigned to support. Faculty interviewed also expressed frustration with this central and department turnover because they felt like they were continuously being assigned new individuals for support on sponsored programs and did not know who to contact for questions and concerns. It would almost certainly be less costly to the university to reduce turnover rather than go through the cycle of bringing new people onboard frequently.

- **<u>Recommendation</u>: The AVPR should work with the Vice Chancellor for Human Resources on a salary study to identify appropriate salary levels for the staff within ORSP.** If there are state standards driving the salary levels, the classification of these positions should be assessed. Current staff and new positions should pay market rate whenever possible. NCURA recently released a salary study in which research administrators self-selected to provide this information. This could be a good starting point for assessing appropriate salaries for UMB (https://www.ncura.edu/MembershipVolunteering/SalarySurvey.aspx).

- **Recommendation: The AVPR should develop a succession planning strategy so that if key individuals depart ORSP there is a logical individual to fill in on an interim basis and/or move into the permanent position.** This would lead to less disruption during vacancies and extended leave.

Departments and colleges reported similar challenges related to salary for local unit research administrators.

- **Recommendation: The AVPR should work with the Vice Chancellor for Human Resources to evaluate research administrators across the university in relation to titles, functions, and salaries.** This analysis, which must be sponsored along with the Provost and Deans, will be important to ensure department administrators are formally being tasked with the activities in the research administration matrix. It also is important from the perspective of equity.

UMB tends to hire entry-level research administrators with no or very little experience working in research administration. ORSP does not have a formal training plan for administrators within the units. New administrators do get 1:1 structured training with colleagues and supervisors. We heard differing reports about staff attending training and having memberships in professional societies. ORSP administrators reported attending webinars and events at other local universities focused on topical areas of importance to their work and occasional national or regional conferences. At most universities, internal training would be supplemented by baseline training given by one of the research administration professional societies to ensure all incoming inexperienced staff have an understanding of and appreciation for the complexity of sponsored projects management.

- **Recommendation: The Associate Director of ORSP Preaward Support Services and Assistant Director of ORSP Postaward Support Services should develop formal training plans for onboarding administrators into each of their areas.** These training plans should include internal training on policies, procedures, and systems but should also include general training in research administration such as the NCURA Level 1: Fundamentals of Sponsored Project Administration (https://www.ncura.edu/travelingworkshops/LevelI.aspx). A course like this allows understanding of the continuum and interconnectivity of functions that support the research enterprise.

The AVPR, Associate Director of ORSP Preaward Support Services, and the compliance staff reported attending national and regional conferences focused on various topics related to research administration. Staff indicated that they would like more training in contracts, which could be obtained at one of the national or regional conferences from NCURA or other research administration organizations; see Standard XX for a discussion of potential educational opportunities related to contracts. ORSP staff and directors indicated that they have not had specific training on interpersonal communication and dealing with diverse audiences. Typically, university research administrators receive training not just in specific tasks and responsibilities of their roles, but also on the interpersonal skills needed to proactively communicate and also react and respond in their demanding roles.

- **Recommendation: The AVPR should continue to request and receive budget for staff to attend professional training (webinars and/or conferences) at least once per year per staff member.** Given the rapid changes that happen in research administration, this ongoing training will be critical to ensuring appropriate knowledge for ORSP. All staff should be required to report on training attended at ORSP staff meetings so that the entire department can benefit from what was learned. Additionally, staff that belong to NCURA should share information that they learn from regular NCURA communications, such as the *NCURA Magazine*. The AVPR should evaluate whether the university offers training on interpersonal skills with diverse audiences then allow staff time to attend this training.

Staff in preaward appear to be knowledgeable about and comfortable with the different sponsors with whom they interact. Staff in postaward indicated that only the Assistant Director of ORSP Postaward Support Services and the AVPR interact with sponsors so they did not have as much familiarity. Sponsors provide frequent workshops where staff could gain additional understanding of sponsor expectations and requirements. Most of sponsor workshops are currently virtual due to the coronavirus pandemic. PIs understood that they should contact ORSP for communication with sponsors and appear to routinely do so.

VI. STANDARD for Resources to Support Research Administration.

> The institution has in place a process to identify changing resource needs for research administration as related to changes in institutional priorities and the external environment. Such resources encompass space, desktop technology, office equipment, and financial resources to support the staff in carrying out research administration functions.

Currently, the process for assessing and setting an ORSP budget involves an annual meeting between the VPR and the AVPR, with financial data supplied by the Assistant Director of Financial Management who reports to the VPR. Discussions with the

Review Team suggest that in recent years the budget has been based on the prior operating budget. This is not an unusual approach when institutions are in a fiscally austere environment.

For many research administration operations that are fully functional in terms of both staff and systems, the approach of basing a budget on the prior year budget is manageable until activity levels and complexity of activities increase. However, given the current fractured research administrative functions at UMB, a more robust approach to defining necessary resources for the near term, such as the next five years, is important.

A number of aspects should be considered in the budget planning process:

- Ensuring staff salaries are competitive for a large high-cost city and that they promote retention of employees (see prior standard on Research Administration Staffing and Staff Development).
- Creating better metrics to assess staff activity workloads based on experience levels of employees, with appropriate metrics to identify when additional staffing is needed.
- Developing better metrics to assess increasing complexity of sponsored projects activities, reflecting the need for either or both additional staffing/education.
- Assessing the current practice of shifting research administration salaries to RTF and off of General Operating Funds. This is not a common practice in place at colleges and universities and in fact the practice has shifted to most universities supporting research administration salaries from General Operating Funds, as found with other university administrative positions.
- Identifying necessary resources for electronic system acquisition and implementation, including IT support, system-to-system integration, data loading, and staffing for testing and data entry.

In assessing resource needs for research administration, the VPR and AVPR should consider if the one-year budgeting approach should be the only budget planning process. A strategy that will look at both immediate and longer-term needs for building research administration and developing target budgets for out-years, based on defined milestones, should be added.

- **<u>Recommendation</u>: The VPR and AVPR should develop one-year, three-year, and five-year plans to address resource needs of ORSP.** A budget plan with these three time points will allow addressing both immediate needs, as well as planning for longer-term budgetary support to stabilize the infrastructure and address needs as services are defined and implemented.

As part of the more immediate one-year plan, ORSP should implement tracking metrics and time and motion studies to help assess current staffing effort and areas of more immediate need.

Contacting peer institutions to explore funding sources for central research administrator positions will help assess the current practice of utilizing RTF funds for some salaries.

Basic desktop support and equipment is appropriate for current needs. Space for current operations appears sufficient. As attention shifts to increasing operations and staff, the institution will need to consider space appropriate to housing staff and addressing a research administration infrastructure that contains more robust education, outreach, and service activities.

Research Administration Communication and Outreach

VII. STANDARD for Research Administration Communications.

Research administration recognizes the importance of establishing mechanisms for timely, regular communication regarding sponsored programs trends and activity levels, policies and procedures, expectations, roles and responsibilities, changes in policies, and risk areas.

Appropriate lines of communication exist between the institution's senior research administrator(s) and the institution's overall senior leadership team.

The central research administration office provides regular communication to the investigators and staff about research administration, as well as opportunities to provide feedback. Current policies and procedures are readily accessible via websites and other appropriate means. Strong and regular communications exist between central offices and unit-level staff, as appropriate. Research administration periodically assesses the effectiveness of communication practices.

Institutional Linkages

Clear and consistent communication lines between research administration and institutional constituents is critical. This communication flows through all areas of the university. While there are some established research administration communication pathways at UMB, in many areas there appears to be a reliance on informal communications as many stakeholders believe that UMB is a small institution and individuals “know” who is involved in what aspects. The Review Team does not consider UMB to be a small institution at a faculty size of 1,135,[2] nor the research volume at $50M+ to be a low activity level.

With this review and the commitment of UMB to further support its research mission and stated goals, it is an opportune time to review the communication pathways that should be in place or tightened. The Review Team presents this information with our understanding of the current budget and pandemic environment taking priority at UMB.

- Research Administration and Senior University Leadership. The Review Team understands that, with Chancellor shifts, the constitution of the Cabinet meetings has shifted and that the format is understandably under the direction of the Chancellor. If research is not at that table, at a minimum, there should be regular reports (quarterly) on research activity and goals sent to senior university leadership. These reports would maintain visibility on the research mission with the members of the Chancellor's Cabinet.
- Research Administration and Academic and Center/Institute Leadership. The VPR sits on the Deans Council but research is not a regular topic of discussion. Recently, an annual meeting was established with individual Deans to discuss RTF, diversity of funding, and funding sources. This is an important discussion; however, an annual meeting on this topic is insufficient. While the current COVID-19 environment and budgetary issues have necessarily taken priority in discussions, it is important that research become a regular discussion (at a minimum monthly, if not more frequently) amongst the Deans and with the VPR and AVPR. Likewise, regular meetings with the center and institute leadership is important to address the research environment and strategies. The Review Team understands from discussions that center and institute leadership have been meeting for

[2] https://www.umb.edu/oirap/facts/statistical_portraits/faculty_and_staff. This total is composed of 689 full-time faculty and 446 part-time faculty.

the past year about center-institute structure and the research environment. While that leadership may have specific agendas, it points to the need for the VPR to be regularly engaged in discussions with them.

- **Recommendation: The VPR should develop at a minimum a monthly agenda item for the Deans Council, focusing on research challenges, collaborations, and strategic directions.** Updates on research activity should be relegated to reports, provided separately.
- **Recommendation: The VPR should meet monthly with the center and institute leadership to discuss research challenges and strategic directions.**

- Research Administration and Finance and HR Leadership. It is critical for institutions to consider the impact business and HR functions have on the ability to carry our research functions; it is essential that institutional processes are carried out in a way that allows PIs and administrators to meet the demands and timelines of research. An important aspect of this meshing is business process mapping in finance and HR processes. That process mapping will identify delays and gaps that are negatively impacting research. Other areas of this report further discuss the importance of business process mapping as it relates to sponsored projects processes. Increasing communications with leadership involved in finance and HR functions will help inform all stakeholders about the current challenges with research administration and the faculty's ability to manage their compliance and administration responsibilities.

    - **Recommendation: The AVPR and the VP for Finance and Administration should engage key staff in regular meetings to discuss meshing of business functions as they relate to research needs.**
    - **Recommendation: The AVPR and the VP for Finance and Administration should engage key staff in regular meetings to discuss meshing of HR functions as relates to research needs.** As an example of benefits of such a meeting, the Review Team heard many examples of difficulties with hiring when there was a new award. However, it also appeared that this topic had received recent attention and should have been resolved. Directing the resolution of this issue into a written communication that is not only shared with PIs and central/unit-level staff, but provided at new award meetings, will ensure that the research community fully understands the resolution.

- Research Administration and Unit-Level Staff Supporting Research Administration. UMB has approximately 30 staff located at the department, college, and center/institute levels who perform support for faculty research activities. While many staff may have partial effort in this regard, they all play a key role in supporting faculty and easing the administrative burden, regardless of level of effort. Communication and education are key components in providing a seamless support system for research administration. While the Grant Forum organized by ORSP was one mechanism for informing those preaward unit-level staff that attended, it is not the most efficient mechanism for ensuring that all unit-level staff are aware of operational or staffing changes that occur in central operations.

- **Recommendation: The AVPR should implement regular communications to all unit-level research support staff to apprise them of central staffing or operational changes and to provide reminders on process challenges.** Such regular communication serves to build a network across units, to help broaden understanding of the connectivity across the areas, as well as to serve as visibility on the important functions that are handled by unit-level and central-level staff.

➢ Research Administration and Faculty. Research administration leadership does not have regular mechanisms to gather faculty input from across the university. There appears to be confidence that faculty concerns will eventually reach the VPR and/or AVPR; however, concerns may not come forward until a level of frustration is reached and may then be dealt with piecemeal, as opposed to addressing a broader systemic issue.

While the Faculty Council Research Subcommittee provides some faculty input, they are a body of the Council and will have a mandate set by the Council. It is critical that messaging to and from the faculty concerning research be formalized and become frequent. The VPR should work with Deans to provide a consistent message about research expectations. This message should be underscored and reinforced by the Provost and Chancellor. Faculty input through senior researchers should be created through a VPR Faculty Advisory Committee (previously discussed), and ORSP should receive input from faculty on systemic issues on operations through an AVPR Faculty Advisory Committee. The VPR should consider townhall meetings on research topics to allow additional concentration on research as a university mission.

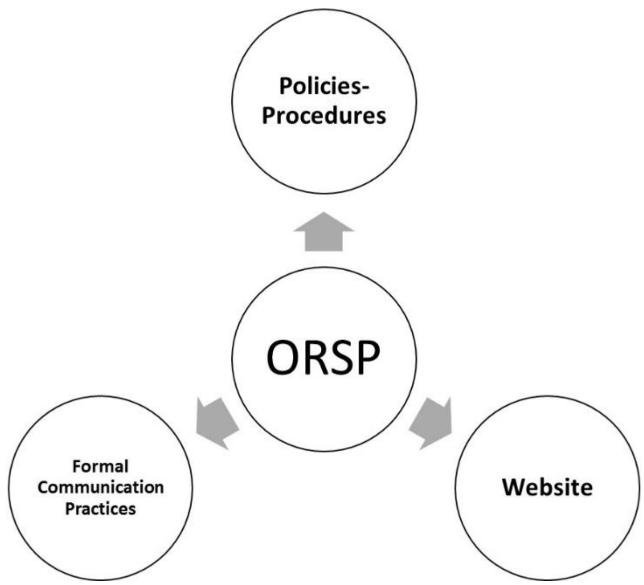
- **Recommendation: The Chancellor and Provost should provide clear and regular messaging on the importance and expectation for research at UMB.**
- **Recommendation: The VPR and Deans should implement regular messaging on the role of research, as appropriate to each discipline.**
- **Recommendation: The VPR should consider implementing townhall meetings on research topics along with regular faculty communications.** Such townhalls could begin immediately through the use of Zoom. The VPR should implement communications to the faculty, once or twice a semester, on research-related topics and updates. The VPR might additionally consider a blog

as an easy mechanism to push out research-related information. Some examples of blogs include:

- https://research.wsu.edu/category/vpr-blog/
- https://research.utah.edu/researchers-corner/posts/?tags=VPR
- https://www.research.colostate.edu/blog/

Research Administration Operations

Communication cuts across several operational areas of research administration and there are three venues for communications to be pushed out by ORSP.



- Policies-Procedures. The UMB policies and procedures are easily identified on the website and are accessible via either an alphabetical listing or by topic. No specific recommendations are offered here; some recommendations related to policies are offered in Standard XI.
- Formal Communication Practices. While it appears that staff in research administration communicate frequently via email in response to specific issues, it is not clear if there has been a concerted effort to assess types of and effectiveness of formal communications, targeting the form and frequency to recipient groups. Some institutions have created and implemented a communications plan, which provides a defined approach for communications that will occur over a set period of time, stakeholder group, timing, and method. It is an excellent approach to ensuring that all the stakeholders (senior leadership, academic leadership, faculty, unit-level staff, external audience) are receiving timely and regular communications, appropriate for them. No specific recommendations are offered, although the Review Team believes it would be beneficial the VPR, AVPR, and ORSP to look at the broader flow and regularity of information to the various stakeholders.

  An example of a university research communications plan is found at University of Washington: https://www.washington.edu/research/wp/wp-content/uploads/2017/04/Comm-plan-OR-030712-FNL.doc
- Website. The research administration website is well organized. The addition of a Research tab on the home page is important visibility for this mission. Within that tab, the research

home page provides a thorough listing of topics, with a similar thorough approach on the ORSP home page. No specific recommendations are offered.

VIII. STANDARD for Outreach Efforts and Program of Education.

Research administration has established programs of education for research staff, faculty, postdoctoral fellows, and graduate and undergraduate students, as appropriate to institution size. Included in education is information regarding institutional and sponsor expectations for the conduct of sponsored programs and research, and the technology and tools available to support these endeavors. The institution has on-going educational programs for unit-level (department, college, center, other) research administrators where such exist.

Research administration recognizes the importance of 1) introducing new investigators, staff, senior administrators, and unit-level research administrators to appropriate research resources and information, and 2) continuing outreach activities to the academic community. Mechanisms are in place to identify new employees. Where appropriate to the institution, mentoring programs for faculty exist to assist them with understanding approaches and philosophies to building a track record with extramural funding.

Research administration has defined mechanisms that make available information about research activities and successes to the greater research community and public.

There has been minimal outreach and education to the academic community, even prior to the COVID-19 impact in the spring 2020. The activities that have occurred at UMB (not including any specific activities offered at the unit-level) include the following:

- Prior to COVID-19, ORSP offered the Grant Forum monthly, focused on preaward topics and staff in the unit. The invitee list included approximately 30 department administrators. The Review Team was unable to receive actual attendee lists.
- ORSP participates in the university orientation for new faculty. This venue is used to introduce ORSP, as well as to schedule follow-up 1:1 meetings.
- The Office of Faculty Development (reporting to the Provost) provides several research-oriented programs for pre-tenure faculty. Most notably, it offers the Junior Faculty Research Seminar and the Junior Faculty Writing Group, the latter mentioned by several faculty during discussions with the Review Team. Similar offerings exist for Mid-Career Faculty.
- UMB requires departments to offer a mentoring program for new faculty. The mentoring programs are uneven in terms of emphasis on research, with some departments including robust assistance and guidance in research mentoring and others minimal.
- Where colleges have an Associate Dean for Research position, it appears that there is a focus on research mentoring, with activities that include a Research Advisory Council, mock

reviews of proposals, and college support for new faculty research (support activities also occurs in colleges without an Associate Dean for Research).

Outreach Activities

At many institutions, engagement in a university-level new faculty orientation is important, but often the office presence is lost in the intense stream of information presented to new faculty. Universities that are looking to enhance research visibility, especially with new faculty or faculty new to looking for external funding, often offer a research-specific orientation. This more specific orientation, offered a few months into the academic year, can provide an overview on research services, and provide opportunities for networking among faculty.

- **<u>Recommendation</u>: The VPR and AVPR might consider hosting a half-day research orientation.** Although faculty newly appointed to UMB might be interested in attending, other faculty new to research and adjuncts might find the focused introduction to the research mission and operations of value. Including a senior faculty panel to bring in diverse perspectives and best practices for working with the research administration system would be beneficial. Some examples at other universities include:
    - University of Maine: https://umaine.edu/research/faculty-orientation/
    - North Carolina State University: https://calendar.ncsu.edu/event/2020_new_faculty_research_orientation#.X44XKsJKiUk
    - Wayne State University: https://events.wayne.edu/main/2020/10/20/research-orientation-for-new-faculty-86598/
    - Wayne State University (various offerings and a research reception): https://research.wayne.edu/seminars-training/research-orientation

Extending awareness and visibility of ORSP can range from offering college-specific workshops to requesting 10 minutes at a department or college faculty meeting. Some activities may be more informational, while others might be more focused on changes that are occurring in the internal sponsored programs areas or on sponsor/federal-wide changes. These department or college meetings, even if short, are opportunities to promote visibility and build relationships. There is room for collaboration between both pre- and postaward offices in all these activities to enhance collaboration. ORSP has responded to some invitations for department meetings.

- **<u>Recommendation</u>: The ORSP Director should define outreach approaches and develop a plan for systematic proactive outreach to departments and colleges.**

It might be valuable for ORSP to look at coordinating specific faculty outreach to engage both the ORSP preaward person, as well as their counterpart in postaward and, as appropriate, the unit-level support person, in meeting with new faculty. This allows the entire research support team to meet the faculty member and provide information on services. Additionally, offering to hold these meetings in the faculty member's office is an excellent practice.

- **Recommendation: The ORSP Director should explore creating a collaborative outreach process for connecting with new faculty and to enable the relevant staff member of both pre- and postaward, as well as unit-level staff, to be part of the meeting.**

Equally important to connecting with new faculty is connecting to new unit-level staff who may provide research support services. There is not a formal system in place to identify and communicate with these new administrators or staff. Rather, there is a general sense that the university is small enough that everyone affected will know when there are unit-level staff changes. Given the size of the university, that approach should be reconsidered. A recommendation on more fully identifying unit-level research administrative staff appeared earlier in this report. Of importance is working with Department Chairs and Deans to identify, by name and percent effort, specifically which staff are providing research administration services to faculty. As part of this process, a listing of generic functions should be developed so there is clear understanding what support the unit-level staff member is providing.

The university has increased their attention on wider visibility by recently publicizing research activities and successes through a newly created Research Magazine. The University Office of Communications is linked to new award activity through a listserv, which they then utilize to provide broader visibility of the university's research and successes.

Programs of Education and Networking

While outreach to departments and colleges is important and should be part of an overall plan for increased visibility, structured and ongoing educational offerings should be created and offered broadly to the entire university community. There are currently limited events and offerings about sponsored program topics for faculty and staff.

There exists a thin number of educational offerings. However, the Review Team understands the somewhat difficult path over the past several years for ORSP in terms of staffing. With the increasing attention on research activities, ORSP should make a concerted effort to extend a broader scope of formal (face-to-face or Zoom) educational offerings to faculty who may be interested in, or wish to explore, external funding. Such offerings can additionally be videotaped to allow for on demand access.

Because educational offerings are often somewhat generic, they do not need to be focused to a particular department or discipline unless the topic is, in fact, targeted to a particular area. Commonly presented topics at universities include:

- How to locate funding, including hands-on guidance in using resources and tools that may help faculty locate funding
- How to analyze funding opportunities
- How to read a solicitation
- How to approach private foundations
- How to approach a State or Federal program officer
- How to write a pre-proposal
- How to write a letter of intent
- Considerations for budget development
- Boilerplate information for a proposal, including where to locate this information and how to utilize the information within a proposal
- Considerations for applying to specific funding agencies, such as NSF, NIH, and the Department of Education
- Grant opportunities in the Humanities (Social Sciences, Arts, etc.)
- How to streamline procurement and acquisitions with an award
- How to effectively manage award amounts throughout the award
- How to navigate internal systems and who to talk to about what
- Timelines for various aspects to the award (or proposal)
- Seminars or formal trainings on grant management specifically focused for junior faculty.
    - **Recommendation: The ORSP Director should explore, with faculty input, the range and type of focused workshops that would be beneficial.** As part of this activity, other university websites on educational offerings should be reviewed. Consideration should be given for short presentations (30-50 minutes) and the qualifications of the presenter. Collaboration with the Office of Faculty Development would be beneficial. Some types of presentations, such as how to approach a private foundation or writing a letter of interest to a private foundation, might be well suited to a presenter from Advancement. Other potential presenters might be through the University Library and that resource should be explored for potential offerings.

- **<u>Recommendation</u>: ORSP should explore inviting presenters from the federal and State agencies and to present to the faculty.** Such presentations are often part of their normal outreach.
- **<u>Recommendation</u>: ORSP leadership should consider engaging successful faculty as well as those who have served rotations as program officers in outreach and workshops.** Successful faculty can provide insights on the entire range of proposal writing, submission, and management topics. Faculty-to-faculty is an effective method for sharing key information.
- **<u>Recommendation</u>: The ORSP Director should oversee developing a year-long plan for offering workshops and such a plan should demonstrate regularity and consistency in key offerings.** This plan should be communicated to the entire academic community, including dates for each opportunity offered that year. Some key topics, such as the two on locating funding and budget preparation, should be offered once each semester. Communicating the offerings through website information and communications to Deans, department chairs, and all faculty should be a pronounced part of the plan developed, as well as making workshop materials available online and recording sessions for easy access.
- **<u>Recommendation</u>: ORSP should explore sharing workshops and offerings with other universities in the Boston area as well as within the UMass system.** With the use of videoconferencing, a broader range of offerings could be extended and offers a cost-effective approach.

Equally important is the ongoing educational opportunities for department and college personnel involved in some aspect of research administration. As important as structuring educational offerings for unit personnel is the support and buy-in from the department and college leadership for their staff to be engaged. Engaging unit-level leadership and securing their support for and expectations that their staff will participate in training is critical to success.

- **<u>Recommendation</u>: The VPR should work with Deans and center/institute Directors to secure support and expectation for participation of their research administration personnel, at department, college, and center/institute levels, for scheduled training and networking opportunities.** Part of the discussion should include whether participation in such scheduled training opportunities could be part of a performance evaluation.
- **<u>Recommendation</u>: The ORSP leadership should create a year-long plan for Grant Forums that address key information in both pre- and postaward information.** Understanding who is in place in the units and the range of activities will help to guide important information to discuss at the Forums.

Beyond the plan, ORSP should consider posting agendas and materials on a shared website for Grant Forum invitees.

- **Recommendation: The ORSP leadership should engage department personnel in agenda planning for the Grant Forums, either as co-leaders or as advisory.** Collaborating with unit-level personnel on identifying topics, and in presenting or moderating sessions will create community and sharing.

Faculty Research Mentoring

It is important to consider mechanisms to support faculty in developing the special skill set needed to pursue and be successful with extramural research. Beyond grant writing and strategies for building an increasingly successful research portfolio, such mentoring should include discussions of professional networking, developing research collaborators, and balancing academic and institutional expectations (such as P&T or service commitments).

While many institutions have approached this as a college or school issue, it may be beneficial for UMB to consider what might be done centrally to support the efforts within the colleges. Some discussion of research development activities occurs in a later section of this report that would also touch on research mentoring. A number of considerations are offered here, no specific recommendations are made.

- UMB might consider the creation of Faculty Fellows positions specifically focused on providing further support and guidance to faculty pursuing funding for research and scholarship activities, especially in those colleges where a Research Associate Dean position does not exist. Such a Faculty Fellows position would be filled by an experienced researcher with a successful track record. A course release may enable a faculty member to provide specialized attention to faculty research issues and mentoring. Such a program recognizes the important role of faculty in speaking to the academic issues surrounding proposal development and pursuing external support. It also allows for the unique college culture to be reflected in discussions. However, if this focus is the primary role of the Research Associate Dean, then this aspect is already being addressed.
- UMB might consider outsourcing specific proposal writing programs in addition to the program currently offered through the Office of Faculty Development. It may become increasingly important to look at additional support for some proposal efforts, such as external grant editors. Many external consultants have programs for proposal writing. Some are a single day offering and others extend through the academic year and work more in-depth with a cohort of faculty to put together a proposal. Consideration should be given to the different foci of faculty, with specialized grant writing for NSF and NIH as one focus and humanities and social sciences as another.
- UMB might consider a series of faculty seminars presented by faculty who have successfully secured external funding as well as faculty who have served as external

reviewers. Such seminars are valuable in sharing insights in the proposal writing and networking aspects of securing external funding. It is also helpful for faculty who have written their first proposal to share their challenges and experiences with faculty new to proposal writing. A faculty member who has recently written their first proposal often yields insights that are valuable to the faculty member who has yet to do so.

- UMB might explore collaborative activities with other Massachusetts universities. Such collaborations, which might make use of video conferencing, would both provide additional opportunities to UMB faculty and promote networking with faculty from other institutions. There would also be the potential of UMB faculty participating in the other university faculty seminars.
- Other innovative programs exist, such as the Northern Illinois University PI Academy, which may serve as examples for future UMB programs, and which may be similar to that which is offered through the Office of Faculty Development. The NIU PI Academy, through a competitive application process, provides professional development and mentoring to a cohort of 20 junior tenure-seeking faculty members each year. Participating faculty engage in a year-long integrated professional development program designed to increase success in obtaining external funding. Through regular meetings, events, discussions and intense training on general and college-specific policies and procedures, faculty are given a forum to explore the mechanisms of finding and applying for funding, understanding compliance, and positioning and timing for readiness in funding. A unique aspect of the PI Academy is the pairing with an external mentor who is paid a small stipend to visit NIU and engage with the faculty member, department, and students through a public talk and follow-up discussions with faculty. Faculty are encouraged to provide a “wish list” to the PI academy director of top scholars and reportedly NIU is very successful in getting top scholars to commit to participation. This appears to be a robust and meaningful program that promotes a junior faculty member’s ability to be positioned for funding and to understand the mechanics of applying. The PI Academy website is available at: https://www.niu.edu/divresearch/resources/pi-academy.shtml.

Faculty Engagement and Faculty Burden

IX. STANDARD for Faculty Engagement and Faculty Burden.

The institution possesses a transparent process for policy development for those policies not imposed externally (such as specific government regulations). Policy ownership and the associated approval process are clearly established.

The institution periodically reviews sponsored program policies and performs appropriate audit and assessment activities to ensure that those policies continue to meet the needs of the institution and

are being followed by institutional personnel. Where research administration operations exist outside the central office and that either establish or implement policy, the institution has established the relationship between central policies and the policies and procedures of these other operations. Relative to the size of the research enterprise, the research administration areas have considered the collective impact and burden on faculty and explored mechanisms to reduce or manage that burden. Faculty are provided opportunities to discuss challenges or impediments to pursuing opportunities and conducting research.

The administrative burden on faculty with sponsored research funding is significant. This burden reflects the cumulative effect of many requirements imposed by funding agencies, auditing and accrediting agencies, the Federal government, and the institution. This administrative burden is especially apparent at UMB due to the uneven and limited administrative support at both the central and the unit level. The more time faculty spend on administrative responsibilities, the more their research productivity is diminished. While it is not possible to remove compliance burdens imposed by external funding agencies, government regulations, etc., institutions strive to modify or reduce some internal administrative tasks that may be duplicative, unnecessary, or handled by staff. This allows faculty researchers to spend more time on their research projects and training students.

Discussions with the Review Team highlighted two key themes:

- There was broad frustration across the faculty who met with the Review Team concerning the level and extent of administrative minutia handled by the faculty.
- Senior faculty expressed significant concern over the frustration and impact on junior faculty coming into the university, especially when those junior faculty have an expectation to conduct research.

There was a consistent theme in these discussions on the lack of staffing within ORSP and staffing turnover, which indeed may impact attention to relieving some of this burden. However, it also did not appear that research was a consistent agenda discussion at the Deans Council, where the issue of faculty burden should begin to be addressed. A prior recommendation for a research advisory board might offer another venue for discussing faculty burden. With ORSP struggling to maintain a modicum of critical functions to sustain their operations and to address a backlog of work, and Deans and departments chairs providing piecemeal and uneven support services to faculty, there has been insufficient attention to reviewing holistically the burden imposed on faculty and how to reduce that.

As an institution grows research, attention should be paid to the scope and range of support to faculty. This could be accomplished in a number of ways, such as:

- Broad discussions centrally with research administration leadership to objectively consider faculty burden within and across functions.
- Discussions among academic leadership at central and college levels to consider faculty burden, as well as discussions between academic and research leadership.
- Discussions between faculty and academic and central leadership to clarify significant areas of faculty burden.

The Faculty Council Research Subcommittee is a fairly new subcommittee, and it has not yet received a formal charge. Beyond this faculty group, there is little formal and continuing faculty input into research. Informal communications that raise piecemeal issues does not allow identifying systemic issues.

Administrative burden is not centered exclusively on the proposal and award process. Faculty also can experience significant burden and stress due to the misalignment of business and HR processes with time sensitive sponsor expectations. The Review Team is not suggesting that business and HR processes are incorrect. Rather, the pressures of conducting research under a defined time period can stress existing systems and business units that may be unaware of areas that need attention to streamlining. The Review Team is also aware that there has been attention on some of these issues and it is not clear if the frustration raised by faculty is recent, or past history.

- **Recommendation: The VPR should lead the effort to raise the awareness of the importance of limiting the administrative burden on investigators as much as reasonably possible when implementing policies and new processes.**
- **Recommendation: The VPR and AVPR should aggressively track incidents of misalignment of business and HR processes with research needs to determine systemic issues that are occurring.**

Research Administration Policy and Risk Assessment

X. STANDARD for Research Administration Risk Assessment.

The institution periodically assesses the level of risk inherent in existing research activities and in emerging areas, including a process to assess research activities in leased space. The institution utilizes nationally identified methods to monitor the external landscape for new areas of potential risk.

There is an appropriate relationship with the institution's internal audit function. When external audits of sponsored programs occur, there is routine notification with senior leadership.

The Federal Government and other sponsors entrust award recipients to set up and maintain high standards of ethical practices while managing sponsored programs. Senior leaders within recipient organizations should play a key role in establishing sound business ethics, promoting integrity and good stewardship of sponsor funds. The sponsored award recipient organizations create appropriately controlled financial environments by ensuring financial stability, implementing sound business systems and practices, and by creating internal controls over business processes across all programs.

Internal Audit resides within the University of Massachusetts System. The annual Audit Plan is prepared at the system level and then presented to the audit committee. Once finalized, the plan is presented to the UMB Vice Chancellor for Administration and Finance (VCAF). The VCAF is the university's contact for Internal Audit. The process does not engage the campus in identifying any risk issues during the plan development phase, although broad risk areas may come into Internal Audit through other venues. However, once the audit plan is presented to the campus, the process does allow for a campus to identify specific risk issues. Areas undergoing audit (based on the annual Audit Plan) would engage appropriate campus personnel.

Many institutions have an annual process where Internal Audit engages in broad annual discussions with key areas of the institution to self-identify emerging or perceived areas of risk. These areas are then considered in the formation of the annual audit plan.

To help UMB assess research-related risk areas that are emerging on the national scene or have been identified in current practices, it would be important to implement an annual discussion between the VPR, AVPR, and key members of VCAF on the topic of research risk. Even if not included in an Internal Audit process, it would engage Finance in a broader view of risk areas in research.

- **<u>Recommendation</u>: The AVPR and the VP for Finance and Administration should engage key staff in regular meetings to discuss emerging areas of risk in research, as well as existing research administration practices that should be reviewed.** An important contributor to this discussion is the Controller. Other staff should be included as appropriate.

Currently at UMB there is no formal system for monitoring new sponsor requirements, external trends in audit and compliance, or risk areas at the national and global levels. However, the AVPR is a member of a system-level group called Grants Core. The Grants Core is a postaward group within the system where issues are raised, and this group receives Council on Governmental Relations (COGR) information and monitors sponsor OIG audit plans and discusses that information. Both COGR and OIG audit plans are routinely used as indicators of potential risk areas by universities.

While it appears the AVPR plays a role in identifying emerging risk issues, there is a gap in that he is not clearly identified as the responsible person charged with monitoring the environment for new and emerging requirements, as well as a gap in bringing forward research-related risk to the university that is tied to the Internal Audit process, or at a minimum, an annual discussion on research risk. Current staffing issues have undoubtedly crippled the ability to match emerging risk areas against current institutional policies, procedures, and activities, as well as associated training to determine what needs to be adjusted. Associated training to identified risk is essential in helping an institution look at current practices, and where those practices may create risk.

- **<u>Recommendation</u>: The VPR should clearly delineate whose responsibility it is to stay abreast of the broader national trends in research administration, and appropriately resource their ability to do this.** This may be vested in a single person, but should include a preaward and postaward leader who would have as part of their formal responsibilities the task of routinely monitoring various regulations and publications, and routinely attending professional conferences to identify emerging changes that could potentially impact current UMB policies and procedures. These responsibilities could also include attending meetings of the Council on Government Relations and/or the Federal Demonstration Partnership and monitoring the Offices of Inspectors General reports and audit findings. The formal expectation would include providing regular communication to all relevant stakeholders.

The Reviewers noted that the campus does not appear to have active and engaged representation at the national level for monitoring audit trends and federal concerns related to the federally sponsored portfolio. While the campus may benefit from receiving information from key national organizations or discussions at the system level, reading a digested version of the issue is not as beneficial as attending key organization's meetings and hearing the discussion of critical topics on emerging research and risk-related issues.

- **<u>Recommendation</u>: The VPR and AVPR should advocate for an increase in national engagement as it relates to the federal monitoring environment.** Engaging at the highest levels in associations such as the Council of

Governmental Relations (COGR) or Federal Demonstration Partnership (FDP)[3] provides the sponsored research leadership the opportunity to build national networks and permits the campus the opportunity to be cognizant of a potential concern with the sponsored portfolio before it becomes a major risk. Currently with the UM system, the University of Massachusetts Lowell and the University of Massachusetts Medical School are members of the FDP, and COGR has a general membership that appears to be at the system level.

As a general practice, the Controller should be informed when any desk or other types of sponsored program audits come into UMB (the Controller would notify other appropriate Finance individuals). Additional individuals to inform include the VPR, PI, and potentially the Provost and/or Chancellor. The current practice is not formalized and should be put in writing, and key stakeholders notified of the process.

- **Recommendation: The VPR and AVPR should formalize the process to follow when sponsored programs audits are received from external sponsors.** The process should include informing the defined stakeholders both before and after the audit concludes. A "for cause" audit may need to define additional stakeholders that should be involved.

Although not a significant part of the NCURA Peer Review scope, an additional area of potential institutional risk came to light in discussions about the Venture Development Center. There was some discussion about external entities utilizing VDC facilities, which are on-campus facilities. Whenever institutional facilities are utilized by outside individuals or groups, the institution is responsible for all compliance-related issues occurring within this space. At a minimum, the agreement with individuals or companies should define the types of activities and the review process (and frequency) for compliance areas related to research use of the space.

As one issue, when this agreement additionally extends to Contingent Worker status for individuals covered under the agreement, the institution should monitor the process surrounding individuals coming into university facilities. Foreign-based entities should be carefully screened as to export control issues. If UMB space is utilized as part of start-up company arrangements, the relationship of the company to UMB should be defined and the relationship monitored regularly. For start-up company relationships, all issues discussed in relation to their VDC arrangements should be addressed.

While it did not appear that UMB had a significant level of this type of activity, the university should consider taking inventory of all such activities and determine whether

[3] UMB applied to FDP during the last open period but was denied. Continuing to pursue membership would be important.

the types of entities using the facilities, or the types of activities taking place in the space, may introduce any compliance risks that potentially need to be mitigated. It would be valuable for UMB to look at existing policies and any existing arrangements as well as the process moving forward.

- **Recommendation: The AVPR and Vice Chancellor for HR should critically review the screening process for individuals and companies coming into the Venture Development Center to ensure that it aligns with appropriate screening of individuals and companies.** The new ORSP Assistant Director for Research Compliance and Integrity will play a role in the screening process.

XI. STANDARD for Research Administration Policy.

> The institution possesses a transparent process for policy development for those policies not imposed externally (such as specific government regulations). Policy ownership and the associated approval process are clearly established.
>
> The institution periodically reviews sponsored program policies and performs appropriate audit and assessment activities to ensure that those policies continue to meet the needs of the institution and are being followed by institutional personnel. Where research administration operations exist outside the central office and that either establish or implement policy, the institution has established the relationship between central policies and the policies and procedures of these other operations.

At UMB, many sponsored program policies are maintained at the system level, with procedures and notes issued at the local level. The procedures related to research administration are under the purview of the VPR. If changes occur, these changes are drafted internally, benchmarked with other campuses, and as appropriate, some department staff and PIs may be engaged. Changes have to go through the Provost office with notification to the Faculty Council, then dissemination to the Deans Council and broader faculty.

The ORSP website lists 30 policies, procedures, and notes. These include both sponsored programs and regulatory compliance areas. Of these, a review of a sampling of 15 indicates that the majority are dated 2007 and 2008, and two contain no date.

There currently is not a regular system of review of the website posted policies, procedures, and notes. Establishing regular review cycles for posted research policies and procedures is important. An ORSP process that annually or bi-annually reviews these posted policies and related procedures should be established. Such a review process should include:

- preaward and postaward policies,
- related policies that are research-related but may reside in other areas, such as conflict of commitment, outside consulting, and travel,
- review by staff from all relevant offices (not just office leadership), and
- accuracy and adherence to government, state, and sponsor regulation and policy.

A regularly occurring review process is in itself an excellent staff development opportunity and re-affirms policy and process across both pre- and postaward staff. The collaborative approach to policy/procedure review allows staff to consider the continuum of policy across all sectors.

- **<u>Recommendation</u>: The AVPR should implement a process for regular review of research policy and procedure that engages relevant staff from both preaward and postaward areas.** The review process should additionally consider a number of related aspects:
    - procedures provide for exceptions when appropriate
    - approval authorities related to procedures are aligned with those holding the requisite expertise
    - approval authorities related to procedures are clearly identified

As a regular review cycle is implemented, and should that process identify necessary changes, UMB should ensure that there is an established process for faculty, staff, and administrators to provide comment on changes. As is feasible, faculty advisory or established research committees should be engaged in review of drafts and their input actively solicited.

- **<u>Recommendation</u>: The AVPR should engage existing faculty groups (committees and/or advisory groups) to review and provide input on changes when they occur to sponsored programs policies and procedures.**

It does not appear that departments/colleges/centers-institutes currently have separate procedures from those that exist at the central level. As a deeper relationship is developed between unit-level and central-level research administration, it will be important to ensure procedures at all levels are aligned. No specific recommendation on this topic is offered at this time.

There does not appear to be a formal written process for reporting non-compliance. in sponsored programs. Although discussions on this topic indicated individuals were aware of who should be involved when an issue of non-compliance was identified, a formal process should be created for each appropriate area.

- **<u>Recommendation</u>: The AVPR should formally define the procedures and implement the process for reporting non-compliance as relates to sponsored programs.**

XII. STANDARD for Research Administration Business Continuity.

Research administration has a written business continuity plan to maintain sponsored programs functional operations during or shortly following disruptive events. Such a plan may be separate from the emergency preparedness plan or contained therein. A disruption may include utility failures, communication disruptions, fire, explosion, or the inability to access the workplace due to safety or transportation issues. Research administration periodically assesses its business continuity plan and ensures that appropriate research administration units and committees are informed.

UMB does not currently have a written research administration business continuity plan. While there exists an Office of Emergency Planning and Preparedness that oversees the Emergency Operations Plan, this does not cover business operations specific to research proposals and awards.

Business continuity plans have become increasingly critical as both natural disasters and disruptive events can create situations that impact time-sensitive proposal and award activities. Beyond natural disasters, disruptive events may include utility failure, communication disruptions, fire, explosion, inability to access the workplace, transportation issues, strike, or active shooter/terrorism. Increasingly, sponsors have established firm deadlines that, when missed, may or may not be excused due to other events, though sponsors typically do have flexibility as to how they handle set deadlines. In light of the significant faculty effort that goes into their research proposals, it is essential that the university processes are in place to meet sponsor deadlines should a disruptive event occur. The written business continuity plan defines how sponsored programs continues necessary operations in light of such events.

While ORSP has clearly managed continuity when the university moved to remote operations during the COVID-19 pandemic, a written plan will address other sudden disruptive events and ensure all personnel understand their responsibilities.

- **<u>Recommendation</u>: The AVPR should spearhead the development of a business continuity plan for essential research administration/sponsored programs activities.** As part of this plan, there should be an established schedule to assess the plan and an identified mechanism to communicate any procedures for dealing with disruptive events to the research community and sponsored programs staff. The UMB Office of Emergency Management maintains a Continuity Planning Tool that may be useful.

All institutions are sensitive to unexpected research-related events. Research activities inherently carry higher levels of potential exposure that impact the community, both within and external to the institution. While often universities will have some compliance areas that have well-defined and written plans for addressing research exposures to the public (such as biosafety and animal use), it does not appear that at UMB either compliance or research has established a clear media response plan and sequence of events should such an event occur, although conversations indicated that individuals were aware of who should be involved in the discussions.

- **Recommendation: The VPR should consider the value of developing a media response plan for dealing with unexpected research-related exposure events in areas that are not already covered by specific plans.** Appropriate stakeholders should be aware of the approach and key contact individuals. As appropriate, Public Safety should be informed.

Emergency preparedness for a university requires creating and sustaining a robust emergency action program encompassing students, researchers, staff, and the community in general. While providing physical protections to the students, faculty and staff in unforeseen catastrophic events is important, it is equally important to have emergency action plans for protecting and recovering student and faculty research data.

- **Recommendation: The VPR should review the current data safeguards to ensure research data is protected and that there are appropriate plans to predict, prevent and recover data in cases of disasters.**

Research Administration Systems and Data Management

XIII. STANDARD for Information Systems Supporting Research Administration.

> The institution has in place appropriate information systems to support research administration and sponsored programs and has processes that integrate proposals, awards, financial management, subawards, and compliance reviews. There is sufficient IT support for systems. As appropriate to the size and scope of the research enterprise/portfolio, the institution has implemented appropriate and integrated electronic systems. The institution periodically assesses research administration technology needs.

The institution captures real-time financial data. For higher volume institutions, there is connectivity among electronic research administration systems.

The University of Massachusetts Boston has two primary electronic systems that they currently use to manage sponsored awards: PeopleSoft and Summit. PeopleSoft enables inputting of key grant information when awards are received and Summit is the financial reporting system that unit administrators and faculty are able to access. There are occasional errors and/or missing information when awards are input into the system which are corrected manually after a report from the Controller's Office is provided.

Both the IRB and IACUC use IRB+ as a database and a system to provide award letters. The IRB+ system does not connect to PeopleSoft or Summit. Because federal funding agencies, as well as other sponsors, require institutional review and oversight of human and animal subjects, an integrated system that connects this research compliance data with grant data would be very helpful to ensuring compliance.

Once per year, PIs are asked to provide effort certification in the Employee Compensation Compliance web-based tool. PeopleSoft feeds information into the Employee Compensation Compliance tool and the effort reports are compiled at the system level based on submissions to the tool. There is an electronic personnel action form (ePAF) that departments utilize to hire individuals on awards. However, it was reported that, despite account information being put into the ePAF correctly, personnel sometimes are charged to incorrect accounts which is later caught by PIs or departmental administrators and charges must be reversed.

Sub recipient monitoring is currently a manual process with some data (expenditures) pulled from PeopleSoft. Data is logged into a spreadsheet and that log is used to monitor activity. Although PeopleSoft has some capabilities in this area, ORSP indicated that it does not meet all of the administrative needs of subrecipient monitoring. Given that the volume of sub awards is modest, ORSP believed that the spreadsheet log is easily managed for the short term. The Kuali Research implementation will provide a much more robust system for subrecipient monitoring.

Proposals are managed through email. The Review Team heard from faculty that they are inputting most of the information into the federal proposal systems themselves prior to ORSP submitting. There has been a planned implementation of Kuali Research with implementation expected in 2021 for preaward, IRB, and IACUC. Kuali Research will communicate with the existing PeopleSoft HR and Finance systems, reducing inputting errors at the time of award. Kuali Research will provide the added advantage of connecting directly to federal grant systems to submit proposals in the correct format and can serve as a helpful tool for PIs and administrators to understand all of the documents that are needed and the correct format in which to submit a proposal. Although there are not specific IT personnel assigned to ORSP, the University of Massachusetts Amherst's Research Information Technology Services staff and the University Information and Technology Systems staff are supporting the Kuali Research implementation. Relying on this experienced IT team for implementation is a very good approach. However, ongoing IT needs are likely to arise after implementation.

- **<u>Recommendation</u>: The AVPR should continue to prioritize implementation of Kuali Research. Given the size and complexity of the research enterprise, managing by email, and manually keying in awards is a big challenge for preaward.** Implementation of Kuali Research will reduce the amount of manual data entry saving staff time as well as reducing errors and will also connect research compliance functions with award information. The AVPR should ensure that they have a long-term plan for supporting any IT related needs that arise after implementation, whether from the University of Massachusetts Amherst or UMB IT resources.

Although Summit is intended to be the system used by PIs to monitor their award accounts, there was a lack of understanding by even experienced researchers in how to monitor spending on their awards using this system, see further discussion in Standard XIV. Additionally, because Summit updates nightly rather than in real time faculty felt that their expenses were taking a long time to show up and did not trust the system. This may be an opportunity for education about the functionality and frequency of updates within Summit. The Review Team learned that shadow systems have routinely been created to monitor awards. Although this is not necessarily uncommon given different individuals' preferences with financial monitoring, it can lead to misalignment of understanding of funds available by PIs. The Review Team learned that faculty have the ability to and sometimes overspend on awards. This may be partially attributed to the lack of comfort with the financial system available to them.

- **<u>Recommendation</u>: The Assistant Director of ORSP Postaward Support Services should work with the Controller's Office to determine whether there might be a better way to provide faculty regular accurate grant reporting from PeopleSoft or Summit.** Many research institutions work with their financial IT team to automatically generate monthly PI reports on all sponsored awards so that PIs are automatically reminded to monitor their spending. This can be helpful not just for overspending but also to monitor burn rate since significant late spending on awards can trigger a sponsor audit. Further discussion of financial reporting is included in Standard XIV.

The institution does not have a process for periodically evaluating research administration technologies currently employed and identifying changes, products, or services to improve processes and provide efficiencies.

- **<u>Recommendation</u>: The AVPR should plan to periodically evaluate Kuali Research and the integration and use of other electronic systems for research administration.**

XIV. STANDARD for Institutional Management of Research Administration Data and Generation of Metrics.

Accurate and accessible data on sponsored programs activity and management are maintained, and the data covers areas that relate to efficiency and research management metrics, such as submissions, awards, and turnaround times. Data is collected regarding institutional actions, such as F&A waivers, and sponsor requirements, such as personnel training. Trends in activity over time are tracked and appropriately reported. As appropriate to the institution, research administrative data also includes clinical trials, clinical research, and other externally sponsored activities. Data and reports are presented in a manner that is easily understood by investigators and staff.

A key component of any research enterprise ensures adequate accessibility of data by administrators, researchers, leadership, and external constituents. To provide optimal benefits to the organization, the data must be accurate, easy to obtain and be received in a timely manner. Institutional leadership increasingly turns to metrics to assist in making strategic decisions about whether to build on existing research strengths or cultivate new areas of expertise. Increasingly, nationally, metrics are being used to assess the quality of services provided to faculty as well as to assess the level of service efficiency.

Data Used for Research Administration Operational Improvement

There does not appear to be a process to regularly extract and review data for research administration operational improvement. Key performance metrics regarding processing times and related data are critical for any office to self-assess performance and expectations. Offices of all sizes should be cognizant of timeframes to process both proposals and awards, and to use that data to assess efficiency or bottlenecks. Three key data areas should be collected:

- Turnaround times for receipt of proposal to submission, including timeframe for multiple key points in this process; should be compiled with data by college, to allow for looking at the portfolio of individual staff.

- Turnaround times for receipt of award to account set-up and notification to PI, including multiple key points, such as receipt of award in preaward, turnaround to shift to postaward, timeframe to account set-up, and then time to notification to PI.
- Turnaround times for contract negotiations.
- Processing statistics (i.e., transaction processing)

Discussions indicated that such data was not available in the currently used electronic systems. However, paper files exist, and this data should be able to be extracted utilizing those files combined with the relevant email history. Given some of the prior report discussion on the time and motion (time and effort) study, it may be valuable to also collect data on the number of email exchanges in broad categories (budget, proposal compilation, other). This latter point could be another data point in assessing staff effort and time sinks in a process. Such data collection could be done by student assistance.

- **<u>Recommendation</u>: The ORSP Director should develop a system for tracking and reporting key performance metrics.** While current staffing levels may be insufficient to collect this information, student assistants could collect and record information. Tracking key performance indicators (KPIs) will allow ORSP to identify inefficiencies and areas of concern and to determine where additional training or attention may be needed. KPIs also provide transparency (and reality) for all and greatly assist in improvements in productivity.

Data Activity/Metrics

There is an annual data report that is generated, as well as on-demand reports specifically mentioned for PI proposals. The annual report includes:

- Annual report sent to Provost, VPR, Deans. This report includes:
  - Proposals submitted by PI/department/college (count/$)
  - Awards Received by PI/department/college (direct and indirect $)

An additional report generated includes:

- Expense data for the NSF HERD Survey
  - Required institutional and PI reports

Developing and tracking key research activity metrics is important to UMB and for both broader research and academic leadership in assessing directions and strategic investments. While the implementation of Kuali Research may address many of these key research activity metrics, it will be important to assess functionality of Kuali Research in tracking and reporting. Key research data activity/metrics include (many of these should be both institution-wide and college/center/institute-specific):

- Proposal submissions
- Awards (including categories for contracts and subawards)
- Amendments to awards
- Subawards
- Expenditures
- Required institutional and/or government reports
- PIs
- Sponsors
- Trends (such as success with a sponsor)
- Facilities & Administrative cost recovery (F&A, indirect cost, overhead)
- F&A voluntarily reduced or waived
- Financial status
- Volume of activity managed by each sponsored programs staff
- Compliance review requirements and approvals
- Personnel training requirements (e.g., Responsible Conduct of Research, Conflict of Interest, etc.) and satisfaction of those requirements
- Frequency of meeting with faculty to discuss burn rates and budget projections
- Reporting and closeout requirements
    - **<u>Recommendation</u>: The AVPR should critically assess the Kuali Research system's ability to collect key data that reflects research activity metrics. This will become essential given the increasing attention by UMB on research.**

Additionally, corresponding attention needs to be directed to data analysis and distribution. Some examples:

- Broad numbers by institution/college/institute may be valuable at senior academic levels.
- Looking at data over time (annual comparisons), is useful.
- More focused reports by college, including breaking data down by department and center/institute, as well as college-specific data charts over time.
- Success rates by PI and success rates by sponsor, both within the college, center, or institute as well as success rates by sponsor overall within UMB (as activity increases, further breakdowns should occur by department).
- Distribution of funds that go to co-PIs.
- Submissions for co-PIs.

- Awards submitted and awarded through a Center.
- Burn rates for individual awards.
- Pending proposals.
    - **<u>Recommendation</u>: The ORSP Director should collaborate with the Deans to assess their needs and re-define the scope and depth of regular data reporting.** Such re-definition should be done in collaboration with the colleges and institutes so data reports can be targeted to their specific needs and use. A review of other peer and UM institutional reports may help guide the process.
    - **<u>Recommendation</u>: The ORSP Director should push out sponsored programs activity reports monthly to the Deans.** Not only does this keep research activity visible but allows key academic leadership to be cognizant of activity currently occurring.
    - **<u>Recommendation</u>: The ORSP Director should assess mechanisms to provide regular burn rates to PIs and other staff who assist with postaward management.** Exploring other UM institutions or queries on RESADM-L may provide tools that could be utilized.

Financial Award Reports

Discussions during the virtual site visit indicated that one of the most frustrating area for funded PIs was utilizing the financial reports through Summit. At many institutions, faculty struggle with using an institution's financial reports in their award management responsibilities. While such reports and systems may be easily understood by finance personnel, faculty are often used to other sponsor financial formats and are not as intensely connected to financial system set-up and structures.

The most prevalent concerns and comments raised about Summit included:

- Minimal training, if at all, and then the PI is left to learn the system. It is not even clear who to go to for questions about the system.
- Random expenditures placed on awards and PI time spent on tracking each transaction for appropriateness.
- System is very opaque, and time spent trying to understand the implications of what data means.
- No financial training for department chairs, of any type.
- The administrative burden of financial management gets pushed out to departments, who receive very little systematic training or support.
- PIs look at Summit every few months, and then have to figure it all out again.

- A lot of PIs have other “stuff” to do than figure out the finance system.
- Summit only loads one year at a time, in a “PIN” report. Should get the next year’s budget allocated into that report, but often that is months late for the PI.

The financial reports are generated with data that is as of the last business day. While that produces timely data, discussions indicated data was not up to date. Indeed, the discussions about the large amount of late transaction postings suggests other aspects of the system need attention. Because Summit generates data up to date within one business day, faculty may not realize that data is not up to date for other reasons (lags in transactions and other business processes). Research awards and activities necessarily cut across multiple business functions of an institution and it is difficult to determine if a particular business function may be creating a bottleneck in posting transactions or if there is a bottleneck at an administrative transaction level. It may be useful for ORSP postaward to consider mechanisms of informally checking in with PIs to assess particular areas where faculty complain that financial reports are not posting in a timely fashion. This may help to identify a particular business function (e.g., travel, procurement) that should be reviewed.

- **<u>Recommendation</u>: The Assistant Director of ORSP Postaward Support Services should consider informal mechanisms of gathering PI feedback when receiving comments about financial reports that are not timely.** This may help to identify other business processes that are creating time-lags in posting data.
- **<u>Recommendation</u>: The VPR, AVPR, and Controller should define who holds responsibility for training in the use of Summit and implement training regularly for existing and new users.** Such training opportunities should collect feedback and concerns about Summit and funnel those concerns as appropriate to campus and system points-of-contact. A point-of-contact should be established for individuals who have received training and have specific questions concerning use of Summit.

It appears that when there is local grants administrative support at either college/institute and department levels, they are doing more “push” financial reports to PIs and more frequently. One college does not encourage PIs to even get on Summit (due to the burden of learning and understanding the system).

During discussions, the Review Team heard that award funds have occasionally been returned to the sponsor. While all institutions return some funds simply as a result of actual research costs versus those that are estimated in a proposal, it is important that the PI be aware of the current budget status in order to utilize costs appropriately to conduct their research.

Given the importance of financial management, and the potential for not using funds, attention to the financial reports, ease of use, and surrounding support services should be addressed.

- **<u>Recommendation</u>: The VPR should periodically add grant financial reports to the appropriate faculty and Dean agendas in order to discuss evolving needs.**

A key aspect of faculty managing their research is user-friendly reporting, with formats that are easily understood, and availability of data relating to their projects. While there may be some solutions with the implementation of Kuali Research, it is likely that solutions will be 12 to 24 months out. In the interim, it would be valuable to explore system solutions to Summit report formats that will ease faculty use and understanding.

- **<u>Recommendation</u>: The VPR and AVPR should explore with other UMass campuses the issues surrounding Summit and mechanisms and reporting formats that will support faculty needs and use.** Continuing discussions with current PIs will engage users in the process and will greatly increase the probability that the resulting reports are as useful and user-friendly as possible to the faculty community.

Institutional Research Partnerships and Associations

XV. STANDARD for Institutional Research Partnerships with Other Organizations.

> The institution has established formal agreements and policies for all long-term affiliations or relationships with other organizations that are participating or collaborating in research activities (e.g., hospitals, institutes, agencies). All parties understand which organization submits proposals. These agreements are periodically reviewed. These relationships apply to research activities flowing in from, as well as out to, the partner(s). Additional relationships include research-related institutional services (e.g., oversight for regulatory compliance areas such as human or animal research) provided to other organizations.

Based on discussions during the virtual visit, there currently are no external partnership agreements that touch on the research arena, although UMB has several partnerships that are academically oriented.

As attention and efforts are directed to developing research partnerships and collaborative activities, there should be corresponding attention on executing agreements to define the scope and nature of the relationship. These agreements will define the relationship, including through which entity sponsored proposals will flow. In cases where formal partnership agreements are not in place, individual or master agreements serve as mechanisms to define roles and aid in the efficient flow of the research collaboration.

When such research partnerships are developed, there should be a regularly recurring review cycle for review of such agreements, including such areas as sponsor billing and accounts receivable; post-approval monitoring; control of confidential information; use of facilities; application or distribution of F&A recovery (indirect cost, overhead); distribution of PI effort; ownership of intellectual property; and coordination of regulatory compliance areas. The regular review cycle is an important process to establish in order to enable attention to changes in either the partnership relationship or in the scope or direction of either organization.

- **Recommendation: None.**

XVI. STANDARD for Research Associations with Non-Employed Individuals.

> The institution has clear definitions for relationships with individuals who are engaged in conducting sponsored programs, but who are not employees. Such individuals include visiting scholars, courtesy faculty, or other individuals not paid by the institution but who are afforded space and responsibilities associated with research activities.

UMB has several mechanisms to engage non-employees. These include:

- Exchange Visitors (Professor, Research Scholar, Short-Term Scholar), handled through Office of Global Programs
- Contingent Worker, handled through HR
- Adjunct appointments (0%), handled through the Provost office

All of these mechanisms have well-defined policies. The UMB policy/procedures on who can serve as PI clearly articulates who is eligible to serve as PI, and this is reinforced by the staff understanding in their proposal review and approval process.

- **Recommendation: None.**

Research Development Operations

XVII. STANDARD for Research Development.

> The institution has created a strategy for developing critical research partnerships both internally and externally. As part of partnership development, the institution focuses on research team building, federal relations building, and ensuring necessary resources are available and maintained.
>
> The institution focuses on research capacity building with special attention on identifying and nurturing areas of institutional strength.
>
> The institution supports faculty in grantsmanship development by providing monetary resources educational opportunities, and support services.

Over the last decade, research development has emerged as a distinct profession related to research administration but with a different focus and function. Research development:

> *"…encompasses a set of strategic, catalytic, and capacity-building activities that advance research, especially in higher education. Research Development professionals help researchers become more successful communicators, grant writers, and advocates for their research. They help researchers bring new ideas to life. Research Development professionals also serve their institutions. They create services and resources that transcend disciplinary and administrative barriers and create programs to spur discovery"*

https://www.nordp.org/why-nordp

Many universities have hired one or more individuals focused on research development activities and the National Organization of Research Development Professionals (NORDP) serves as a professional society focused entirely on research development. Research development activities, as described by NORDP, include:

- Strategic Research Advancement activities such as: identifying strategic research priorities and coordinating these priorities with institutional leadership and external collaborators, spearheading grand challenge activities in support of community based research, managing and contributing to seed funding competitions, coordinating with federal relations personnel, managing sponsor preaward site visits, and managing limited submission competitions.
- Communication of Research and Research Opportunities such as: managing marketing of research such as websites, coordinating stories, publishing research newsletters and/or magazines, and disseminating grant opportunities and proposal development tools.
- Enhancing Collaboration and Team Science such as: convening and coordinating research interest groups, leading large interdisciplinary proposal teams, catalyzing new cross-

disciplinary research initiatives, developing and coordinating resources and tools to promote collaboration, maintaining faculty expertise database and other collaboration and networking tools, and facilitating collaborations within and external to the university.

- Proposal Development activities such as: helping faculty understand institutional proposal development processes, working with investigators to improve grant writing skills and grantsmanship, writing proposal components, providing strategic advice on making proposal more competitive, editing proposal drafts, managing requests for cost-share, coordinating institutional support requests, coordinating pre-submission peer reviews to enhance proposals, and leading “red-team” reviews and/or external pre-submission reviews.

All of these activities support faculty and faculty teams in their ability to be more competitive for proposals, including large complex proposals.

UMB does not have dedicated research development professionals on staff. However, as detailed further in Standard XVIII, the university does provide some training and resources to help faculty understand how to find funding and submit grant applications. ORSP subscribes to Pivot-RP which is available to faculty to set up queries and receive funding announcements or to search for specific funding opportunities. ORSP also periodically provides a seminar on finding funding. Faculty training related to grantseeking along with recommendations are provided in Standards VII and XVIII.

- Partnerships are crucial to continued growth of the research enterprise. Discussion related to research partnerships are detailed in Standard XV.

Because the university does not have dedicated Research Development staff, several activities are not currently supported including:

- providing templates or boilerplate materials for supplementary documents that can be used for grant proposals that detail the university environment, facilities and equipment, mentoring plans, and other similar documents that are frequently needed.
- providing internal incentives for faculty preparing proposals so that they are more competitive, in addition to the seed funding already described this could include grant writing support, project management on large complex proposals, and funds available for workshops to bring interdisciplinary faculty together.
- providing on-site educational opportunities for faculty to meet with potential sponsors including federal and local sponsors, to learn about programs, and receive tips for preparing competitive proposals.
- connecting faculty as new interdisciplinary opportunities arise. Although faculty are asked to put keywords in their Annual Faculty Reports there is not a systematic approach to utilize this information and funding opportunities are sent to faculty on a more ad hoc basis.

All of these activities and other related activities are typical of research development positions and offices at research universities.

- **<u>Recommendation</u>: The VPR should consider bringing on a research development professional to support the university in partnerships and proposal competitiveness activities.** Even one FTE focused on these types of activities would enhance the research environment and open up potential opportunities for faculty to seek and receive additional funding.

There currently does not appear to be any proposal boilerplate information available. Proposal boilerplate information is a common practice at the central level, developed and updated by a central sponsored programs office unless a formal research development position is in place. Competitive proposals rely on accurate and targeted information about central resources (appropriately written for research proposals) and the institution, such as library, institutional disciplines, and degrees. While some college-specific boilerplate may be available at that level, faculty should not have to individually search out and gather basic institutional boilerplate information. Many institutions offer this information, and a web search will identify the range of topics that could be developed.

- **<u>Recommendation</u>: The VPR should identify the appropriate office to develop proposal boilerplate information and establish an annual schedule to maintain accuracy of that information.** A faculty research advisory committee would be an excellent resource to identify the types of useful boilerplate information, both on broad areas and sponsor specific needs. The location of boilerplate information should be clearly defined and accessible. A web search will identify additional boilerplate areas to consider. Examples of university proposal boilerplates include:
  - Florida International University: http://research.fiu.edu/proposal-preparation/templates/
  - University of Georgia: https://research.uga.edu/proposal-enhancement/boilerplates/
  - University of New Mexico: https://coeresearch.unm.edu/pi-toolkit/research-proposal-boilerplate.html
  - University of North Carolina Greensboro: https://sponsoredprograms.uncg.edu/templates-and-boilerplates/

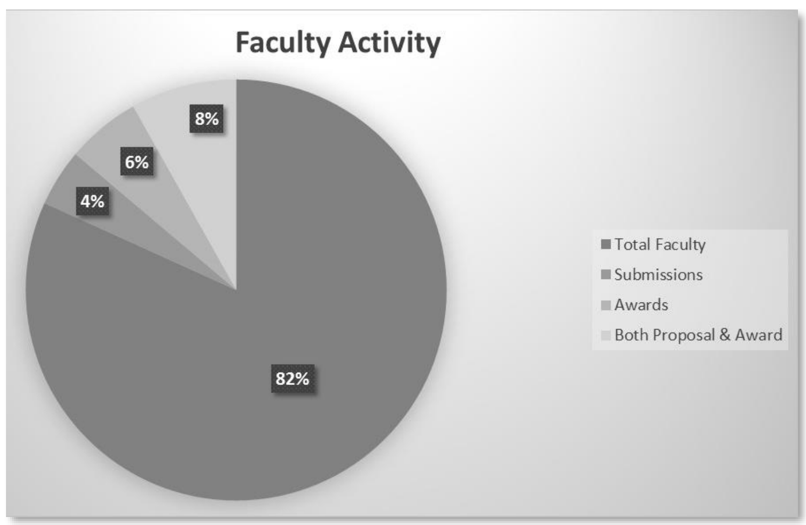
XVIII. STANDARD for Sponsored Program Funding and Proposal Services.

The institution provides faculty/investigators access to information on prospective sponsors (such as government, local, corporate, and private foundations, international agencies). Periodically, the institution assesses the quality of usefulness of its information resources.

Stakeholders are provided resources, tools, and assistance, as appropriate to the culture of the institution, the level of activity, and the relative importance of research in strategic goals. Appropriate to the size and needs of the institution, assistance is extended to support investigators and research personnel in responding to funding opportunities and preparing letters of intent, pre-proposals, and proposals.

Clear expectations exist for training appropriate to responsibilities for all level of staff engaged in sponsored program funding and proposal services at central and unit levels.

A commitment to the research mission necessitates providing timely services to faculty in identifying emerging and existing funding opportunities. While senior faculty have developed an understanding and track record with key sponsors in their field of research, faculty new to proposal writing or who have shifted their research focus, will need to understand what opportunities exist, and how to align their research activities with those of a sponsor. Given the significant effort expended in preparing a proposal, the institution needs to maximize the possibility of success.

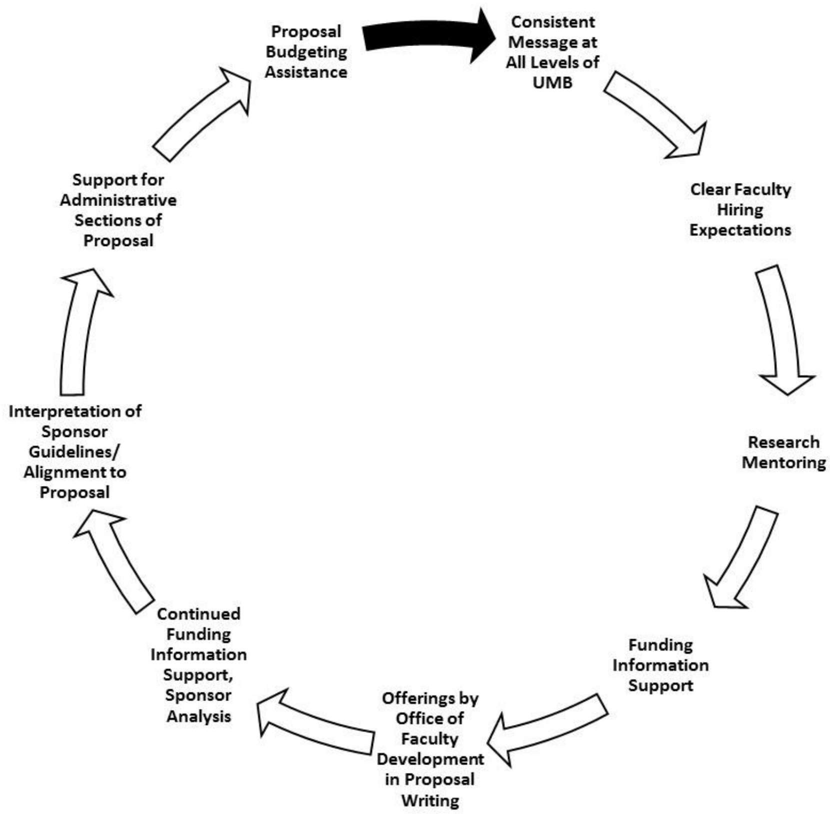


Recent data on faculty ranks indicates that UMB has 1,135 appointments with faculty ranks (including adjuncts who are eligible to submit proposals)[4]. During FY 2020, 174 faculty submitted proposals and 192 faculty received awards. However, of these numbers, 113 faculty submitted both proposals and received awards. The chart shows the 8% faculty who are the 113 faculty, with another 61 faculty who submitted

[4] https://www.umb.edu/oirap/facts/statistical_portraits/faculty_and_staff. This total is composed of 689 full-time faculty and 446 part-time faculty.

proposals and 79 faculty who received awards[5]. A total of 253 faculty, in 2020, were engaged in pursuing external funding, a little over 22% of the total faculty ranks or 37% of the full-time faculty. While funding activity over the last several years has not grown, the most recent fiscal year showed some increase in both awards and expenditures. Many factors contributed to the somewhat flat line in recent years. The Review Team believes that as operations return to normal and with continuing increased attention to research, UMB will see increased research activity. In particular, recent years has resulted in many new faculty hires that demonstrate both interest in and track records with research.

Creating the environment for faculty to pursue extramural funding goes far beyond ORSP. The goal is to create a seamless progression of services and resources to assist faculty through a continuum of seeking funding. ORSP plays a critical role in developing services that will assist faculty in identifying potential sponsors and in providing guidance on the interpretation and alignment of research interests with those sponsors.



Even more critical than the role ORSP plays is for UMB to look at the entire lifecycle of proposals and awards, and the continuum of support at each step throughout the

[5] Data only looked at a one-year snapshot. Often proposals submitted in one year may be awarded in another, so the count of 253 faculty being active may be higher than what is actual. Data would need to be reviewed for a multi-year period to determine actual number of faculty who are active.

lifecycle to maximize success. The continuum cuts across multiple offices and staff, from unit-level to the Chancellor.

To support the effort of faculty in securing external funding, a number of specific ORSP areas need attention.

- Funding Information Access. In terms of funding opportunity identification, the university subscribes to Pivot-RP, an electronic funding search tool. This is a tool used by many institutions and allows faculty to establish a research profile of interests that is matched with funding opportunities. The ORSP website additionally links to Grants.Gov, which provides access to Federal funding opportunities, links to internal UMB sources of support, and links to some Federal, State, and foundation/local sponsors.
- Training in Use of Funding Information Systems. Use of the funding information systems is provided through a monthly "Finding Funding" workshop where one ORSP staff member introduces students and faculty to the Pivot-RP database/ website where they can create their research interest profiles to be matched against funding opportunities, as well as and introduction funding searches and Grants.gov. Beyond the monthly training session, 8-10 sessions a year are conducted when invited by a program or department to teach it to students or faculty.

While the NCURA Review Team applauds these efforts, they are minimal for an institution that has a goal to significantly increase their research presence. Faculty may be aware of the major federal sponsors in their research areas, but less aware of private, State, or industry support that is available. For many faculty, building a track record often involves working from pilot data, towards increasingly larger funding and collaborative research, and eventually federal funding.

- **Recommendation: The ORSP Director should determine approaches that will provide individual introductions to the Pivot-RP funding information system and how to define the faculty profile, with scheduled 1 or 2 follow-ups to assess usefulness of results to faculty.** Often profiles need some adjustment once a faculty member begins to receive results. Equally important is discussing how results should be interpreted and how research interests can be aligned to those of a potential sponsor.
- **Recommendation: The ORSP Director should implement a series of 30 - 45-minute seminars on how to analyze sponsors and how to approach different sponsors (e.g., letter of inquiry, pre-proposal, white paper).** These should be regularly offered, as well as videotaped for easy access. Engagement of Advancement personnel and senior faculty will add richness to the information and insights.

- Targeted Funding Information. Another area for promoting research interest is to make more visible the opportunities through the Council on Undergraduate

Research (CUR), of which UMB is a member. While a link to CUR appears on one web page targeted to undergraduate students, it does not appear to be linked elsewhere on the UMB website. CUR offers numerous meetings for faculty to meet with sponsor program officers and which also provide the opportunity for networking between faculty. Some of the meeting opportunities include:

- CUR Dialogues: brings faculty and administrators to the Washington DC area to interact with federal agency program officers and other grant funders.
- CUR Institutes: a two-to-three-day meeting held on the campus of a higher education institution where individuals discuss an issue related to undergraduate research and faculty development.
- CUR Conversations: Webinars on topics relevant to undergraduate research.

An investment in faculty travel (or virtual attendance) to these meetings would be valuable.

- **<u>Recommendation</u>: The VPR should consider offering travel funds (or virtual meeting attendance) for a select number of faculty to attend Council on Undergraduate Research meetings.** A range of meetings is offered through CUR and the VPR should consider which are the most valuable to faculty. An avenue to share back to the academic community the information gleaned from those meetings should be developed. The VPR should define how faculty recipients would best be selected.
- **<u>Recommendation</u>: The ORSP Director should host report-outs from CUR attendees to broaden information about sponsors and undergraduate research opportunities.** Such report-outs can be posted on the internet and distributed to faculty.

➢ <u>Distributed Funding Information</u>. One staff member sends out funding information to faculty, based on who they know or remember. There is some, but often little follow-up.

ORSP could generate regular discipline specific searches to send to faculty, departments, and/or colleges. Not only does that bring awareness of using the funding search tool but it also proactively provides regular reports on upcoming sponsor opportunities. For many information systems, saved searches, once defined, provide a quick approach to generating search results. Such searches could be by discipline, or by other topic areas, such as equipment. Many institutions have simple listservs that faculty can self-subscribe to and would allow them to sign-up to receive one or more of the generated funding search results. While such an approach would not replace faculty defining their own personal and focused search, it could generate interest by faculty who are unaware of the value of this tool.

- **<u>Recommendation</u>: The ORSP Director should consider implementing regular distributions of discipline or topic specific funding searches.** Pivot-RP allows for the creation of reports that will generate funding opportunities, based on the frequency set for the results to be generated. These current funding opportunities could be sent out weekly. Developing easy self-subscribing listservs would allow faculty to subscribe or unsubscribe as they determine.
- **<u>Recommendation</u>: The ORSP Director should review carefully the techniques used for funding information distributions at sister University of Massachusetts institutions, as well as inquiries to the RESADM-L listserv.** Both sources will provide some additional techniques and approach to raise awareness of the range of funding opportunities.

➢ <u>Analysis of Sponsors</u>. Little is provided.

There is no replacement for agency- (and solicitation-) specific advice on interpreting a sponsor's guidelines; however, a general understanding of how to read an announcement or a standing set of guidelines is very helpful to faculty not only in preparing proposals but also in determining whether or not they have the time and/or capacity to pursue a given opportunity. Practical experience in reading solicitations/guidelines is a crucial grantsmanship tool; such experience can be gained through writing proposals, but also through gatherings of faculty at which sample solicitations are critically read, "marked up," and discussed. This builds skills in identifying critical information, underscores the importance of following guidelines to the letter and of giving close attention to review criteria in developing the technical proposal.

- **<u>Recommendation</u>: The ORSP Director should consider offering periodic interactive, in-person workshops on "Reading a Solicitation."** Offering these types of workshop serves the dual role of providing information to faculty and helping staff become more proficient at picking the critical details out of announcements. Sessions on reading solicitations requiring agreement to terms at the proposal stage (such as RFPs, RFAs, RFQs) should be offered. Unit-level support staff may find such workshops valuable as they assist their faculty.

➢ <u>Proposal Budgeting Assistance</u>. Little to no assistance is provided. A generic budget template is now posted on the web.

While some UMB units provide assistance to faculty in drafting a proposal budget, many areas do not, and faculty are left with the task of gathering information to create their budget. Research administrators who are skilled in budgeting can dramatically ease the burden placed on faculty. While faculty can provide general guides on what they need, the skilled research administrator can not only translate those guides into appropriate budget numbers, but additionally ask questions about other potential budget costs, based on the proposal activity. Appropriate out-year increases would be included so the faculty member does not find the actual activity cost exceeds the budgeted cost.

- **<u>Recommendation</u>: The ORSP Director should identify which units provide detailed budget assistance and then create a parallel service for areas where such assistance is not available.**
- **<u>Recommendation</u>**: **The ORSP Director should oversee developing sponsor-specific budget templates.** This is the budget format needed for proposal submission and should be equally viable during the proposal review process. The use of such budget templates may cease once Kuali Research is fully implemented.

➢ <u>Assistance with Administrative Sections of Proposal</u>. Equally important is the provision of services, such as assistance in the development of administrative sections of proposals (biographical sketches, current and pending support information, collaborator/other affiliation information) that need to be addressed for faculty to successfully submit quality proposals. No ORSP support is offered in administrative sections of proposals.

As with budget assistance, some UMB units provide assistance to faculty with these administrative sections of proposals. Before immediately implementing services, it would be useful for ORSP to better understand what units are doing, the specific faculty needs in this area, and what peer and other UMB institutions offer in this area.

- **<u>Recommendation</u>: The ORSP Director should explore mechanisms for providing support to faculty on the administrative sections of proposals.**

Although the Office of Faculty Development offers a well-received workshop on proposal writing, there are a number of consultants who are well respected and who can supplement the OFD offerings. Some consultants specialize in workshops focused on NSF or NIH, or a discipline area like the humanities. This type of workshop is a solid step in providing grantsmanship awareness and skills to faculty members and serves as a base for continuing grantsmanship development activities.

- **<u>Recommendation</u>: The AVPR should explore utilizing consultants to offer additional proposal development workshops.** This should be done in collaboration with Office of Faculty Development, with a focus on developing a continuum of offerings beyond what is currently available. Discussions with peer institutions or an inquiry on the RESADM-L listserv will generate suggestions for consultants.
- **<u>Recommendation</u>: The AVPR, working with the ORSP Director, should identify areas of faculty interest for which there are current federal funding**

opportunities and explore planning workshops focusing on these areas. Workshops should focus on potential funders' areas of interest that are not readily apparent from published information; on proposal guidelines; and on tips for preparing successful proposals. Federal program officers are often able to travel to campuses to speak with groups of investigators/present a workshop if investigators from nearby institutions are invited. Such an event could be extended to other local universities and which would additionally promote faculty networking and reflect positively on UMB.

Beyond offering various grant writing workshops, institutions of all sizes are engaging the services of a grantwriter. Based on needs, some institutions focus a grantwriter only on larger collaborative activities, while others will utilize a grantwriter for new faculty or where English is a second language.

- **<u>Recommendation</u>: The AVPR should explore models of utilizing a grant writing consultant and define parameters for such.** In particular, collaborative proposals are by nature more complex than proposals for single-investigator projects, often involving multiple subawards and requiring a great deal of coordination. A proposal writer can be helpful with keeping these large and complex proposals on track as far as timelines and required documents/information. Because it would be difficult if not impossible to find one person who can be equally helpful in writing all proposals, a grantwriter function may be best filled initially by a consultant/independent contractor than a full- or part-time employee, until such time as services are assessed for value.

Many institutions consider using recovered facilities and administrative costs for contracting the grant writing expense to be a good investment. If writers are engaged, results of the competitions for which they assisted in writing the proposals should be tracked to determine if the investment of funds is providing the expected return. Return on investment should not only be seen in terms of funded proposals, but also in terms of the sponsor feedback given on proposals that are not funded. An unfunded proposal with good reviews often becomes a funded proposal upon revision and resubmission or upon revision and submission to a different announcement or sponsor.

- **<u>Recommendation</u>: The ORSP Director should track the proposal outcomes when proposal writers are hired.** Not only should outcomes be tracked in terms of funding status but also of reviewers' receptions, based on their comments. This tracking will help to determine return on investment and inform decision making on using proposal writers in the future. Additionally, the tracking will allow UMB to build a pool of proposal writing consultants that have been vetted through the process.

Sponsored Program Operations

XIX. STANDARD for Proposal Review and Submission

> The institution has an established process to review proposals prior to submission to ensure conformance with sponsor requirements and institutional policy. Proposal review includes budgeting, cost sharing, and adherence to specific sponsor policies. Proposal review includes processes for needs of special solicitation requirements and voluntary waivers of F&A. The roles and responsibilities associated with the proposal review and submission activities are clearly understood by all stakeholders.
>
> Management systems and the proposal review process interface smoothly with compliance processes/systems.
>
> There is a clear process for subrecipients in both proposals and as awards. The institution clearly distinguishes sponsored programs from gifts. The institution has clearly defined and communicated internal processes for sponsors that restrict the number of applications.
>
> Clear expectations exist for training appropriate to responsibilities for all level of staff engaged in sponsored program proposal review and submission at central and unit levels. The central and unit-level staff has adequate understanding of submission requirements for electronic and non-electronic proposal submissions.

Accurate classification and processing of external funds is a part of the institutions fiscal and fiduciary responsibilities in its role as a steward of external funds. In some cases, the distinction between a gift and a sponsored award (grant or contract) is ambiguous and requires consideration of many factors. The following are normally characteristics of a gift:

- No detailed scope of work, budget, or period of performance required by the sponsor
- There is no line item budget
- Generally, no restrictions on the use of funds, as long as consistent with the donor's stipulations
- No requirements to return unexpended funds to the donor

The following are normally indicative of a grant:

- A specific line-item budget for project activity
- A detailed scope of work with planned activity
- Specific deliverables or milestones to completed by a specified time
- Fiscal accountability such as submission of financial reports, audit provisions, and/or an obligation to return any unexpended funds

A part of the proposal preparation and review process involves distinguishing the difference between gifts and grants prior to the submission. The relationship between University Advancement (UA) and Office of Research and Sponsored Programs (ORSP) is collegial. At proposal stage and/or award acceptance stage the Grant and Contract Administrator (GCA) reviews the scope of work along with the terms and conditions to determine if it is a gift or a grant. ORSP and UA have a conversation to make this determination, and there is no indication that it is supported by written documentation. ORSP has research policies available on their website that include a definition to help inform faculty of the differences between a gift versus grant.

There are times when both entities become aware of a program solicitation announcement that limits the number of submissions per institution, and there are last minute communications to make decisions and organize which proposal will be submitted. An organized approach to this decision-making process is needed to prohibit more than one application from being submitted to a funding source. Too many applications being submitted by UMB for one opportunity, could result in the funding source rejecting all applications.

- **Recommendation: The Director of ORSP should develop an institutional limited submission procedure that will create an organized process for ORSP, UA, and faculty to assist in timely coordinated decisions.**
- **Recommendation: The Director of ORSP should coordinate a process as it relates to funding sources to delineate which unit on campus will be involved in the decision-making process.** Both federal agencies and private funding sources have funding announcements that limit the number of submissions.

  The following are examples of excellent resources:

  - Mississippi State University: https://www.research.msstate.edu/initiatives/limited-submissions
  - University of South Carolina: https://sc.edu/about/offices_and_divisions/research_and_grant_development/funding/limited_submissions/index.php
  - Harvard University: https://research.fas.harvard.edu/limited-submission-opportunities

As a general practice most university sponsored program offices, do not process proposals that are deemed to be a gift and does not have an expectation of deliverables. These types of proposals go through the foundation or university advancement and are processed by their office. Most university foundation/university advancement offices have a knowledgeable team that process these grant gift proposals.

- **<u>Recommendation</u>: The VPR, AVPR and UA should work together to create a process whereby anything that is deemed a gift, either at the proposal stage and during review of solicitation, with no attached deliverables, should be processed by the university advancement team.** This same approach should be used by Advancement when they are reviewing application to a private sponsor and the work falls under the definition for sponsored program.

  The following is an example of excellent resources:

  - Texas Women's University: https://twu.edu/research/submitting-a-proposal/orsp-and-university-advancement/
  - William & Mary: https://www.wm.edu/offices/compliance/policies/gift_or_grant/index.php

One element of the proposal review process is the distinction of a subaward versus a vendor/consultant. The GCA works with the PI/departmental unit to help distinguish whether it will be a subaward or procurement agreement by reviewing the collaborator's scope of work to help determine if it will be categorized in the budget as subcontract or procurement (i.e., vendor). It is a standard practice for institutions to use a decision tree for this process and to make it widely available on their website for easy access by their PIs. ORSP's subrecipient versus contractor classification guidance document is embedded as a link in UMB's subrecipient monitoring procedure.

- **<u>Recommendation</u>: The AVPR should create a direct link for the subrecipient versus contractor classification guidance document in the PI Tool Kit located in ORSP website and create a decision tree to be included.** This additional location will make it more visible to the PIs and departments/units and be a helpful resource in making decisions about how to categorize their collaborators in the proposal preparation process.

The proposal routing form is significant because it provides all the necessary internal approvals, budgetary information, and any related compliance issues in the proposal. The proposal routing form is routed through email using DocuSign and must be signed by the principal investigator (PI), department chair, and dean and other necessary institutional officials before going to ORSP. Signatures on the routing form indicate the PIs responsibility for the content of the proposal and certify compliance with sponsor and institutional requirements. At UMB, it is not required that the routing form be completed prior to the submission of the proposal and many times it is received after the proposal has been submitted.

- **<u>Recommendation</u>: The AVPR should develop procedures requiring a fully signed routing form to be submitted to ORSP prior to the submission of the proposal as well how this will be enforced.** The requirement of this form up front is critical to providing information about institutional commitments and alerts the GCA about any compliance issues such as human and animal subjects. All those signing the routing form should be made fully aware of what the PI is proposing, and the routing form provides this information. The implementation of Kuali Research should help streamline the proposal routing form signature process.

- **Recommendation: The AVPR should develop a process for submitting a proposal without review and the option to withdraw a proposal.** Currently, many proposals are being submitted with a routing form which includes institutional approvals. Once this process is developed, it is important to communicate the key role that ORSP plays in the review of the proposal prior to submission. If something is submitted without prior approvals, the institution should explain their right to withdraw the application.

The proposal routing form requires PIs to check appropriate boxes to indicate if their research will include human or animal subjects, or any other compliance issues. As noted in Standard III, other than being listed on the proposal routing form, there is no formal system in place to link the proposal review process with any regulatory units such as Institutional Review Board (IRB) for Human Subjects Protection or Institutional Animal Care and Use (IACUC), GCAs rely on the PI to provide them with approval letters or documentation.

- **Recommendation: The ORSP GCA's should develop a status practice to notify any "checked" compliance area on the proposal routing form about a proposal submission that contains research in their area.**

In most units on campus, the PI is responsible for every detail of assembling their grant proposals, as well as for loading it into the appropriate grant proposal electronic system such as Grants.gov, Research.gov, etc. The PI then notifies ORSP so they can check the proposal and for any errors. ORSP compares the proposal to the solicitation guidelines to ensure that all the required components are included. Any corrections needed are shared with PIs so they can make the necessary changes. In a few colleges on campus, who have experienced departmental administrators, the PIs receive special assistance with the preparation process as well as with any corrections to the proposal.

- **Notable Practice: The ORSP websites provide helpful links to a PI toolkit, forms, and FAQs.**

Part of the proposal submission and review process includes the review of a proposed budget to ensure the budget justification matches the scope of work. Budget reviews include a process of checking for accuracy such as the appropriate F&A rate, cost sharing commitments, or other institutional commitments. It also a way of ensuring that adequate funds are budgeted to cover their research efforts. As previously noted, PIs are responsible for creating their own budgets. Some are able to utilize the expertise of departmental administrators who create their budgets or have budget templates. Other PIs seek assistance from experienced colleagues or figuring it out on their own. This is not an optimal approach since it leads to both faculty burden and the potential for misunderstandings and errors. The colleges, departments, and centers/institutes at UMB that are providing research services to their faculty reduce their burden allowing them to concentrate on their research efforts.

- **<u>Recommendation</u>: The Associate Director of ORSP Preaward Support Services should create training of basic budget development and how to use ORSP budget templates**. Training is referenced in Standard I and VIII and it is important to mention that ORSP should offer budget development at least once a semester at various times of the day to accommodate faculty and staff schedules.

If the proposal includes a subaward, the PI Toolkit on the ORSP website provides a proposal checklist of required information from a prospective subrecipient. The items for a potential subrecipient in a proposal should include a statement of intent signed by the institutional official, scope of work, a budget and budget justification. The subrecipient should include any additional documentation/forms required by the sponsor. When notified by the PI of a proposal submission, the Grant and Contract Administrator (GCA) reviews the solicitation and creates a list to provide to the PI or departmental administrator of required items needed from the prospective subrecipient. The principal investigator is responsible for all communication and gathering all the documentation from the subrecipient. At the proposal stage, ORSP requires subawards to complete a subrecipient commitment form, an audit certification and financial status questionnaire. The GCA provides a final check to make sure that all documents are received.

As described in Standard X, the Federal Demonstration Partnership (FDP) is an association of federal agencies, academic research institutions with administrative, faculty and technical representation, and research policy organizations that work to streamline the administration of federally sponsored research. The FDP is in Phase VI and its membership includes 10 federal agencies and 217 institutions. The FDP's main purpose is to reduce the administrative burdens associated with research grants and contracts.

One of the benefits offered by the FDP is the subaward forms and templates. There are specific subaward forms that are available for use by FDP members and Non-Members. With UMB not being a member of FDP, ORSP utilizes the Non-FDP subaward template. These subaward forms and templates are widely used and accepted by many institutions and simplifies the subaward process.

The Expanded Clearinghouse is an FDP authorized system that publishes on-line organizational profiles for use in lieu of subrecipient commitment forms. Pass-through entities utilize this publicly available information when issuing subawards or monitoring subrecipients organizations. Again, this is widely used and accepted by many institutions and reduces administrative burden.

- **Recommendation: The Director of ORSP should consider utilizing the Federal Demonstration Partnership's Expanded Clearinghouse.** This Clearinghouse is found at https://thefdp.org/default/expanded-clearinghouse/. This process will reduce the administrative burden of requesting additional forms from subrecipients. FDP members and non-members are permitted to use this site to check organization profiles in lieu of requesting subrecipient commitment forms and audit certifications. Using this site will reduce faculty and staff workload due to reducing the documentation needed to subrecipients providing a signed letter of commitment from their institution.

The ORSP shared that when a PI notifies them of their plan to submit a proposal, the assigned GCA reviews the solicitation and will coordinate a meeting with the PI to explain the requirements of the submission. During meetings with the faculty, the Review Team heard that this type of assistance seems to be inconsistent by their assigned GCAs because each has their own customer service approach in working with faculty. Sometimes solicitations come with terms and conditions that require a review and response at the time of submission. When this occurs, the assigned GCA will communicate with the PI through email to make sure they understand the specifics of the terms and conditions. If there are any exceptions to the terms and conditions, the GCA would include an exception cover letter to include with the proposal submission. This review is critical to ensure that any terms deemed unacceptable or unfavorable for the institution are noted before submitting the proposal.

There is an institutional policy requiring that proposals be due to ORSP five (5) business days before the submission deadline. There is no enforcement of the deadline and proposals are routinely received and reviewed after the internal deadline of five (5) days and right up until the submission deadline. Currently, there is no special approvals or waivers required when faculty provide proposals after the internal deadline. As a standard practice, many institutions have internal deadline submission policies and enforce them.

- **Recommendation: The VPR and AVPR should meet with the Deans/Associate Deans to share and discuss the internal submission deadline policy.** A waiver process should be created and require by those who do not make the deadline.

  The following are examples of internal deadline policies:

- The University of North Texas Health Science Center at Fort Worth: https://www.unthsc.edu/sponsored-programs/proposal-submission-deadline/
- Exception Waiver request form: https://forms.unthsc.edu/view.php?id=237211
- George Mason University: https://osp.gmu.edu/wp-content/uploads/Internal-Proposal-Deadline-Policy_1219.pdf
- Harvard University: https://osp.finance.harvard.edu/proposal-deadlines-internal-review
- 5-day Exception request form: https://osp.finance.harvard.edu/5-day-exception-request-form

A note concerning facility and administrative (F&A) costs recovery rates written in 2008 is available on the ORSP website and provides detailed background information about the recovery of F&A. The process for requesting a waiver of F&A is documented through emails and attached to the proposal files by the assigned GCA.

- **Recommendation: The AVPR should create a policy to include a defined process for requesting a waiver or reduction in F&A and appropriate approvals should be secured before the proposal is submitted.** A process will help minimize risks and assure that all institutional levels are aware of the commitment prior to the submission.

  The following are some examples of forms and procedures:

  - University of Minnesota https://policy.umn.edu/research/cost-proc03
  - University of North Texas Health Science at Fort Worth https://www.unthsc.edu/research/wp-content/uploads/sites/21/FA-Waiver-Form-201808_v2.pdf

- **Recommendation: The Director of ORSP should annually track waivers/reductions of F&A and share this information with the VPR/Deans so that they understand the scope and impact on F&A recovery.**

Any portion of a sponsored project that will not be funded by the sponsor is considered cost share. The institution has the fiscal management responsibility for tracking these commitments and providing detailed documents to comply with reporting requirements by the sponsor. UMB has a university policy for cost sharing and a cost share commitment form to indicate if it is mandatory or voluntary. The approach to managing and tracking cost share is decentralized. PIs and departmental units are creating their own shadow spreadsheets to track cost share. Certifying cost share is inconsistently performed and provided only if there is a mandatory cost share requirement by the sponsor that is requested in the award terms and conditions.

Tracking cost share commitments is collaborative effort between departments/units and ORSP at the proposal stage. For fiduciary reasons, the department should track it so they are aware of the potential costs should the proposal be awarded. At proposal stage, ORSP tracking involves making sure all the appropriate signatures are secured to indicate approval.

Once the proposal has been funded, is a standard practice, most institutions set up separate cost share accounts or chart string accounts for a specific award as a way to track the commitment. This is a reliable way to ensure that it is being tracked without the burden of spreadsheets that require manual entry.

- **Recommendation: The AVPR should update the policy to create a procedure for ensuring that cost share is tracked by ORSP and the departments. ORSP in collaboration with the departments should enforce the use of a cost share certification form** This provides for a process of internal controls and provides a method of checks and balances. It will also contribute to decreasing UMB's audit risks.

  The following is an example of a cost sharing procedure guide:

  - Harvard University: https://osp.finance.harvard.edu/files/cost_sharing_procedure_guide_april_2020.pdf
  - Virginia Commonwealth University: https://policy.vcu.edu/universitywide-policies/policies/cost-sharing.html#contacts

While UMB is working towards expanding their research portfolio, it was shared in discussion with ORSP that the university does not respond to solicitations or participate in sponsored research involving classified research activities It also does not appear that there is an institutional policy related to classified research. The Review Team notes this without making a formal recommendation.

ORSP Grant and contract administrators are university authorized organizational representatives (AORs) and have signatory authority for proposal submissions. While the Associate Director of ORSP Preaward Support Services has delegated signatory authority for proposals and award acceptance.

As described in previous standards, ongoing education for ORSP staff is a crucial element to ensuring UMB has adequate knowledge and support for all aspects of sponsored programs administration, including the electronic systems that staff are required to use by sponsors."

XX. STANDARD for Award Review and Negotiation.

> The institution has a consistent process to review terms and conditions of grant, contract, and cooperative agreement awards, including the relationship to original proposal budget. Incoming subawards are reviewed for the terms of the subaward and the flow-through terms of the prime award. Processes include routine communication with PIs.
>
> The institution evaluates all awards for sponsor restrictions on such items as the use of funds, appropriate project personnel, publication rights, or intellectual property to ensure compliance with institutional policies that govern the research activities of the institution.
>
> Processes are in place for ancillary agreements, such as non-disclosure agreements or data use agreements.
>
> Clear expectations exist for training appropriate to responsibilities for all level of staff engaged in sponsored program award review and negotiation at central and unit levels.

The Office of Research and Sponsored Programs (ORSP) both receives and reviews on average 400 to 500 awards per year, primarily from federal agencies, federal pass-through, and other sources of funding.

The award review and negotiation processes are designed to help facilitate the grants and contracts process for the principal investigators (PIs) while, at the same time balancing the need to be compliant with sponsor and institutional regulations. Award documents are provided in many forms such as grants, contracts, or cooperative agreements depending upon the type of sponsor and project. Awards are reviewed and negotiated by the Grants and Contracts Administrators (GCA). The GCA is authorized to negotiate and seek any necessary guidance or support from the Office of General Counsel or university system level business offices. Any terms and conditions that deviate from the university's standard positions are flagged, reviewed, and authorized by the Associate Director of ORSP Preaward Support Services.

The GCAs have functional knowledge and skills for accepting and negotiating awards. Communication to the PIs and department during this process is inconsistent among the GCAs. There does not appear to be standard procedures for the entire team for reviewing terms and conditions. Some GCAs leave the faculty out of the specifics of the negotiations because of the time involved. Then, other GCAs work specifically with the PI in reviewing deliverables and specific terms to make sure they agree and can meet the milestones. It was noted by colleges and departmental leaders, faculty, and staff that ORSP is understaffed and therefore at times it can take many months before an award is reviewed, negotiated, and finalized from the time it is received. Because ORSP is understaffed, the PIs acknowledge that the level of services provided to them and their colleagues are inconsistent. Some PIs receive more service than others and faculty believed that those that were more persistent in their requests for help from ORSP received higher levels of service.

The ORSP website does not list any policies and procedures available indicating the procedures for award acceptance and the importance of reviewing the award terms and conditions. There is an institutional responsibility that the terms and conditions be read, understood, and followed by those involved in sponsored activities to be compliant.

From a process point of view, not all awards are created equal. For example, an NSF grant is generally a more straightforward federal award than a contract from a private funder. As referred to in Standard VII, communicating award policies and procedures would assist in developing a transparent process and provide PIs information necessary to better understand the institutional responsibilities and timelines during award acceptance.

While there are many signatories available, such as the VPR and AVPR, the Associate Director of ORSP Preaward Support Services is typically the one who acts as authorized signatory for award acceptance.

- **Recommendation: AVPR and the Associate Director of ORSP Preaward Support Services should develop standard operating procedures to use during the negotiation process that includes frequent updates to the PI and/or department.** Frequent consultation is important to make sure the PI will be able to meet the deliverables timeline as well as the reporting requirements.
- **Recommendation: The Associate Director of ORSP Preaward Support Services should develop award policies and procedures and post in the PI Toolkit on their website This will allow all stakeholders to have a better understanding of the process.**
- **Recommendation: The Associate Director of ORSP Preaward Support Services and General Counsel should work together to develop an agreement negotiation guidance document.** If General Counsel is comfortable doing so, they could include examples of standard language and an order of preference for certain terms (for example choice of law, indemnification, etc.). This would help expedite the review process and ensure consistency in the review by all GCAs.

  The following are examples of award review guidance:

  - West Virginia University: https://osp.research.wvu.edu/award-negotiation/preferred-terms-in-sponsored-research-agreements
  - University of California, San Francisco: https://osr.ucsf.edu/review-award

- Stanford University: https://doresearch.stanford.edu/research-administration/award-acceptance-review-award-terms-and-conditions

Grant and Contract Administrators conduct basic reviews of all agreements including material transfer agreements, data use agreements, and non-disclosure agreements. Information is gathered about research related to these agreements and a review is coordinated with the Associate Director of ORSP Preaward Support Services and/or a technology transfer consultant, who works on an as needed basis. Once the negotiation of these agreements are completed, written acknowledgement or concurrence is obtained from the PI. There does not appear to be any specific policies and procedures addressing these agreements.

- **Recommendation: The AVPR and Associate Director of ORSP Preaward Support Services should develop and include information on their website explaining the recommended use and processing of material transfer agreements, data use agreements, and non-disclosure agreements.** Information should include the purpose of the agreement and when they are appropriate. While UMB may not have much activity requiring the use of these agreements, having clear and defined processes will facilitate use and implementation when needed.

The ORSP website provides a link for export controls that explains to the PI their responsibilities. There is no mention of publication restrictions and the negative impact it can have on the PIs research or the institution. Information about intellectual property is on the Research website.

- **Recommendation: The Associate Director of ORSP Preaward Support Services and General Counsel should develop information to include in the agreement negotiation guidance document that includes information about export controls and publication restrictions.** Information should include why it is important for a PI to be aware of these items and how they can impact university research.
- **Recommendation: The VPR and AVPR should consider sending a GCA team member on a rotating basis to the NCURA Contract Negotiation and Administration traveling workshop.** As previously discussed in Standard V, this is great investment for ensuring that GCA team members are current and up to date on review and negotiation skills of agreements. Attendees are provided tools, tips, and resources.

ORSP GCAs compare the awarded budget with the proposed budget. If there is a change, then they notify the PI or department so any necessary adjustments can be made to the budget.

The Review Team observed that there is not a consistent plan in place for training of ORSP, PIs, and departmental grant administrators. Standards IV, VII and VIII provide recommendations in this area for training these stakeholders.

XXI. STANDARD for Award Acceptance.

The institution has a process in place that allows the formal acceptance of a sponsored award by designated individuals or offices. The award acceptance process interfaces smoothly with processes for proposal submission and award management. Clear expectations exist for training appropriate to responsibilities for all levels of staff engaged in sponsored programs award acceptance at central and unit levels.

Accepting an award represents a formal commitment by the university. ORSP is the official office for the receipt of award notifications from sponsors. ORSP holds the responsibility to administer the acceptance of awards according to a document regarding signature authority on their website.

- **Recommendation: The Associate Director of ORSP Preaward Support Services should create current standard operating procedures (SOPs) for award acceptance.** This SOP should define who can accept and sign awards on behalf of the institution. ORSP should also create a link on the home page of their website for the roles and responsibilities matrix. In addition, this will create a visible awareness of the matrix and to the research community.
- **Recommendation: The Director of ORSP should update the "Contact Us" section of the website with current staff and their unit assignments.** This will help PIs and unit research administrators identify their point of contact.

When an institution receives award notifications from the sponsor, there is typically some lag time before the award is processed and activated. Communication to the PI would provide some assurance that the award has arrived and will be processed by ORSP. Typically, this kind of communication is managed by an administrative assistant or support team member in sponsored programs.

- **Recommendation: The Associate Director of ORSP Preaward Support Services should notify the PI by email that an award has been received and provide next steps.** This can be a standard email template that provides the same information to anyone on campus receiving an award.

  The following is an example of procedures for award acceptance:

  - Boise State University: https://www.boisestate.edu/research-osp/award-acceptance/

Once the institution and PI have been notified about an award notification, then the award acceptance process begins. As referenced in Standard XX, there is a process of award review and negotiation that occurs before the award is accepted. During award acceptance, the GCA reviews the award notice and compares it to the submitted proposal records. The PeopleSoft Grants Module resides within the PeopleSoft Finance System that is used for award set-up and feeds some fields of information into the financial system. The proposal side of the grants module establishes the submitted proposal records and once the award is accepted/negotiated the GCA moves it into the awarded proposal records to the award side of the grants module. After the process of accepting the award, the GCAs email the award packet to a designated ORSP postaward mailbox which provides a notification to the postaward team that it is ready for award activation in PeopleSoft Financial. It was unclear if GCAs have a checklist of items to be included in PeopleSoft for the award acceptance, and the postaward team explained that there are gaps in information provided which causes delays during the award activation process. One example, the GCA might process the award leaving out information about the prime sponsor of the award. If it is a flow down, then this information has to be collected to be included in award set up.

- **Recommendation: The Associate Director of ORSP Preaward Support Services and Assistant Director of ORSP Postaward Support Services should create an award acceptance checklist to ensure that all necessary components are being accounted for during the award acceptance.** This will create a smoother transition for the award once it moves to postaward for award activation. The checklist could include items such as the type of award (grant, contract or cooperative agreement), catalogue of federal domestic assistance number (CFDA#), sponsor, prime sponsor, prime sponsor award number, F&A rate, project period of performance, and any detail on the subawards.

XXII. STANDARD for Award Activation and Notification.

The institution has a defined process to place a sponsored award in the accounting system and to make funds available to the investigator for expenditures. The institutional notification process for award activation is timely and clearly conveyed to appropriate personnel, such as investigators, researchers, and unit-level research administrators. Notification includes appropriate documentation to investigators and others. The institution has considered the use of preaward spending accounts. The institution understands risks associated with advance spending accounts and faculty have the opportunity to discuss research start dates.

Clear expectations exist for training appropriate to responsibilities for all level of staff engaged in sponsored programs award activation and notification at central and unit levels.

After the sponsored award has been officially accepted by the institution, the Postaward Administrator responsibilities include activation of the award and to provide notifications. The team members are knowledgeable and understand their respective responsibilities for award activation. As noted in Standard XXI, delays in processing by postaward can occur if they do not have all the necessary information for the activation. If there is missing information, postaward will return the document back to GCAs or send an email asking for this information.

- **Recommendation: The Associate Director of ORSP Preaward Support Services and the Assistant Director of ORSP Postaward Support Services should collaborate to map out the process from award acceptance to award activation.** Mapping out the process as a team will help both preaward and postaward identify the important and necessary elements that are needed to process and activate the award. The mapping process could lead to the development of a guidance/reference tool for the teams. This process will also provide each team with a better understanding of their respective roles.
- **Recommendation: The Assistant Director of ORSP Postaward Support Services should create a guidance document of procedures for award establishment and notification on their website.** This would ensure transparency in the process for PIs and college/department administrators.

After the GCA completes the review of award, it is then pulled into the PeopleSoft Financial System by the Postaward team where award set-up occurs. Currently, there is one person in postaward who is processing award set-ups. One common observation from groups of faculty and departmental administrators that met with the Review Team was the length of time it takes for an award to be set up for either an account or an advance spending account. They describe the process as taking weeks to many months which creates stress for them because they are unable to start their work as expected by their sponsor.

- **Recommendation: The AVPR and University Controller should create an advisory team to collaborate in process mapping, including timeline, from award activation to assignment of the Project Information Notification (PIN).** This is a method of process improvement and includes everyone involved in the process of these steps to determine what makes this entire process happen. This is important to identify what steps and/or information might be missing from the process and causing significant delays.

Although there previously were some communication challenges between pre- and postaward, this has been improving and there are now regular monthly meetings for ORSP staff. However, the research compliance staff interviewed appeared to have very little knowledge of the work of or interaction with the other ORSP staff.

- **<u>Recommendation</u>: The AVPR should consider sending the research compliance staff for basic training in grants administration and including them in ORSP general staff meetings.** This exposure to understanding the grant life cycle is critical in enabling their understanding of the commitments and responsibilities that the university accepts with sponsored projects.

Receiving an award with human or animal subjects or other research compliance oversight areas does not trigger a communication to the research compliance staff and the research compliance staff are not providing approval notices to ORSP before awards are set up. This lack of coordination presents compliance risks for the university.

- **<u>Recommendation</u>: The AVPR should ensure that approval notices from the IRB and/or IACUC as well as other research compliance areas are on file prior to the award being fully set up and released to PIs.** This is standard practice at most research institutions with the communication being directly between research compliance and sponsored programs staff. The Associate Director of ORSP Preaward Support Services can also create a process to release funding prior to compliance committee review for awards that have work to be performed prior to engaging research subjects. Many institutions have simple forms to document these cases.

The Project Information Notification (PIN) is distributed by postaward to the PI, department administrator, and chair. This award document includes key information about the award, including the terms and conditions, and the reporting requirements. New faculty find it difficult to interpret their first award and to understand their roles and responsibilities as a new PI.

- **<u>Recommendation</u>: The Associate Director of ORSP Preaward Support Services and Assistant Director of ORSP Postaward Support Services should establish a procedure to have a kick-off meeting when an early career faculty member or faculty member that is new to UMB receives their first award**. These meetings could be 30-minute meetings that include the PI, college, center and/or institute, and assigned GCA and Postaward Administrator. This process will help the early career faculty member better understand the roles and responsibilities during the lifecycle of the award. This is an opportunity to build relationships with those involved in the award life cycle.

The PI may request Preaward or advance spending accounts by submitting the Request for Advance Account form found on the ORSP website. It must be signed by the PI, department chairperson, and dean or unit head and forwarded to the ORSP along with written correspondence from the sponsor providing necessary assurances. A PI can request an advance account prior to the receipt of the notice of grant award or subaward or the completion of the negotiations and receipt of a fully executed contract.

There needs to be reasonable assurance that the award is forthcoming, and the Dean or unit head assumes the financial risk for expenditures made by the PI if for any reason the award is not received. An advance account fund is created by ORSP in the university's PeopleSoft financial system for a 90-day period only and the PI is notified of the advance account number.

- **Recommendation: The Director of ORSP and Assistant Director of ORSP Postaward Support Services map out the process of setting up an advance account.** This process should include input from the departments and units to facilitate in getting an overall view of the process and will provide a better understanding for all participants.

XXIII. STANDARD for Subaward Management and Monitoring.

Outgoing subawards are written, reviewed, and negotiated to reflect sponsor flow-through requirements (including federal award identification, when applicable) and institutional policy.

Subawards made from federal funding are evaluated for risk of non-compliance, and for determination of appropriate subaward monitoring. Dependent upon the assessment of risk, monitoring strategies are effective and appropriate. Subawards made from federal funding are verified that they are audited in accordance with 2 CFR 200.

Clear expectations exist for training appropriate to responsibilities for all levels of staff engaged in sponsored programs subaward responsibilities at central and unit levels.

As referenced in Standard XIX, the GCA works with the PI/departmental unit during the proposal process to help distinguish whether the project has any subawards or procurement agreements. This determination helps the GCA for issuing any outgoing subawards once the award is received.

If it is determined that the collaboration will be a subaward, ORSP uses the Subrecipient Risk Analysis Checklist to assess the subrecipient's risk and help to determine the level of monitoring required. It is the responsibility of ORSP to conduct the risk assessment before issuing the subaward. The risk assessment is one component to ensure proper stewardship of funds and to ensure performance of goals (Scope of work or specific aims) are achieved. Depending on the results of the assessment, this process helps to identify if any adjustments in subaward language that will be necessary. Although it was conveyed to the Review Team that a majority of the subawards are low risk, conversations with the preaward team revealed that the risk assessment process is inconsistent and not routinely conducted.

Standard XIX described how the use of the FDP Expanded Clearinghouse reduces administrative burden related to subawards. There are many resources available to non-FDP members for the subaward administration process, and this also includes a risk assessment questionnaire found at https://thefdp.org/default/subaward-forms/ .

- **Recommendation: The Director of ORSP should list the Subrecipient Risk Analysis Checklist on the ORSP website because it is a useful decision-making document.**
- **Recommendation: The Director of ORSP should establish a standard operating procedure for conducting routine risk assessment of subawards.** Creating and using the SOP is a standardized practice by many institutions as a way of reducing risks.

ORSP uses the Non-FDP subaward template available on the Federal Demonstration Partnership (FDP) website for issuing most of its subawards. Conversations with PIs and unit/department shared that it takes a long time to get subawards issued which creates frustration for their collaborators and results in delays in starting their effort.

- **Recommendation**: **The AVPR, Preaward, Postaward, and representatives from the academic units should collaborate in process mapping, including a timeline, to better understand the various steps involved in issuing subawards.** This will help to identify what steps and/or information are needed during the subaward process to facilitate a smoother process and shorter processing time.

Once the subaward has been issued by the GCA, it is also their responsibility to track them to make sure they are signed and returned to UMB. PIs and departments indicate they are following up on their own as well to make sure their subawards are returned to UMB for signature.

- **Recommendation: ORSP should create a tracking procedure to ensure the return of subawards.** This practice allows for transparency during the process. Some institutions create an activity log where PIs or departmental units can log in to check the status. Some examples of website are the following:
  - Yale University: https://your.yale.edu/research-support/office-sponsored-projects/subaward-monitoring-and-management/subaward-faqs-preaward
  - University of Hawaii System: http://www.ors.hawaii.edu/index.php/award-status

Subrecipient monitoring is the process of providing oversight on subawards throughout their lifecycle. It is a process of ensuring that the subaward is used for authorized purposes, in compliance with federal statues, regulations, and the terms and conditions of the subaward; and that subaward performance goals are accomplished. One of the many focuses of the Uniform Guidance 2 CFR 200 is to provide comprehensive grant guidance to prevent abuse of federal dollars expended annually on subawards.

The UMB Research Administration Roles and Responsibilities Matrix provided to the Review Team includes the responsibilities for various tasks related to subcontracts and who has the primary and secondary responsibilities for them. As stated earlier, this matrix is not available on the ORSP website.

- **<u>Recommendation</u>: The Director of ORSP should make the UMB Research Administration Roles and Responsibilities Matrix available on the ORSP website.** This matrix provides an easy reference tool for the roles of PIs, Department Administrator, College/Unit Administrator, Preaward, Postaward, and Compliance.

The ORSP has Subrecipient Monitoring Procedures that includes a link to the Subrecipient Policy. In this document, it provides information about designated responsibilities within the institution for monitoring subawards.

It is the UMB PI's responsibility to monitor subrecipients so there is reasonable assurance that the subrecipient uses the award for authorized purposes. The PI is also responsible for certifying the work performed, and they work with their respective department contact to review and approve invoices. There is a lack of understanding among the PIs and department administrators of what should be monitored and what is required under the Office of Management and Budget (OMB) 2 CFR 200. There is a gap in subrecipient monitoring such as verifying progress and ensuring that subrecipients are submitting invoices timely. This gap also includes timely subaward closeouts. For most federal sponsors, institutions are required to submit its final report reports (financial and progress) within 90 days after the project termination. Subaward invoices and final reports must be submitted within 60 days to allow UMB to meet this deadline. ORSP should update its website to provide a concise procedure on subaward monitoring, including closeouts, and the responsibilities of the PI and academic unit.

- **<u>Recommendation</u>: The Director of ORSP should create procedures to collaborate with PIs/departments/units in subrecipient monitoring.** As discussed earlier, there is a Research Roles and Responsibilities Matrix that includes subawards. However, in discussions with PIs and academic unit administrators there is inconsistency and a lack of understanding of their role. It is a standard practice that university postaward areas lead the effort in subrecipient monitoring as a knowledgeable resource. There is an expectation by the federal government that those receiving federal flow through dollars are being monitored to ensure they are carrying out their scope of work as described in the subaward document.
- **<u>Recommendation</u>: The Associate Director of ORSP Preaward Support Services and Assistant Director of ORSP Postaward Support Services should include educating the PI's responsibilities in managing subawards at the kick-off meeting as referenced in Standard XXII.**

The following are examples of subrecipient policies/procedures that can be used to help PIs better understand their responsibilities in subrecipient monitoring:

- Stanford University: https://doresearch.stanford.edu/training/cardinal-curriculum-level-2/subawards-ora-1122/subawards-monitoring/pi-responsibilities
- University of Minnesota: https://research.umn.edu/units/spa/subawards/managing-subawards

The following is a subaward processing checklist for specifically for departments/PIs:

- University of Minnesota: https://drive.google.com/file/d/0B7644h9N2vLcVDB6WXprb2JMVjA/view

At one time, there was a consultant hired to file Federal Funding Accountability and Transparency Act (FFATA) reports on behalf of the institution. This is a subaward reporting system by the federal government where institutions are required to file information about the recipients of federal funds.

- **Recommendation: The AVPR should designate responsibilities of FFATA in the area of postaward.** It is a standard business practice among many universities to place this responsibility in postaward.

XXIV. STANDARD for Award Management Support.

The institution provides support for award management appropriate to the size and scope of the institution. The support includes assistance with spending projections and meeting reporting and close out requirements. Support staff have access to and are aware of resources across campus to assist in effective award management. Support staff know how to identify ethical issues and how best to direct questions related to these issues.

Awards are made specifically to the institution on behalf of the investigator, and many departments at the institution are involved in managing and carrying out the award commitment by providing support to the PI. Most faculty receive help in managing their research portfolios from their respective unit/departments. For those faculty in departments with grant managers, they have procedures in place to help manage their research projects. One college on campus has a tracking spread sheet for each grant and they meet monthly with the faculty to provide updates. Examples of their assistance include tracking purchases, reporting, reviewing invoices, monitoring burn rates, and budget projections. Departmental personnel appeared to be knowledgeable about grant management processes. However, departments have developed different approaches in providing assistance.

- **<u>Recommendation</u>: ORSP should create opportunities for informal sessions specifically for department administrators to share best practices and ask questions of each other.**

Faculty without departmental assistance said that due to staff turnover in ORSP they do not always know who to contact for help. Some reported being able to find assistance from an experienced faculty researcher to provide guidance and some budget help. They are aware that ORSP is understaffed, and they are trying to manage on their own. One major concern of faculty is about expenses being incorrectly placed on their research projects. As a result, many of them keep their own shadow systems to track their awards to help them with reconciliation of costs. It is a standard business practice among universities to have good internal controls. Institutions are obligated to reconcile costs on a research project activity to ensure they are for the correct purpose, amount, and are allowable. This is also an act of being good stewards of sponsor funds.

- **<u>Recommendation</u>: The Assistant Director of ORSP Postaward Support Services should create a reconciliation guide as a tool for PIs, departments, and units as a resource to ensure that expenditures are charged correctly and in compliance with sponsor guidelines.**

  These are some examples of excellent reconciliation guides:

  - University of Washington: https://finance.uw.edu/fr/internal-controls/reconciliation
  - Arizona State University: https://researchadmin.asu.edu/postaward-management/reconcile-project
  - University of South Florida: https://www.usf.edu/research-innovation/train/documents/award-reconciliation.pdf

As previously referenced in Standard VIII and XIV, faculty and departmental administrators also use Summit to get financial updates on their research accounts. However, many are frustrated because the system is not intuitive, and the university does not provide adequate training. ORSP staff will make themselves available to meet with faculty, as requested, to discuss their research award accounts. However, faculty report that this service is inconsistent and often struggle to manage it on their own.

It is a standard business practice among many institutions, that the postaward area is involved in the distribution and/or notification of close-out materials to the PIs and departments/units. This practice of distribution helps to alert everyone about the timing of required close outs. There are standard forms and specific methods of submission, depending on the sponsor, for closeouts. It was shared that ORSP used to initiate this process but due to staffing resources they have not been able to implement it.

- **Recommendation: The Assistant Director of ORSP Postaward Support Services should create a procedure for sending out reminders about final reports and other reporting obligations.** There should be someone responsible for coordinating closeouts by sending out emails to various entities on campus necessary requesting documentation, or to set up a task reminder that is emailed to the PI and department/unit.

XXV. Sponsored Programs Fiscal Management.

> The institution's control environment provides reasonable assurance regarding the effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations. The institution maintains internal controls through processes, systems, and tools to ensure compliance with institutional and sponsor guidelines and requirements. Fiscal data is readily available through published reports, queries, or integrated systems for transaction processing, review and tracking of activities, and reporting.
>
> Clear expectations exist for training appropriate to responsibilities for all level of staff engaged in sponsored programs fiscal management at central and unit levels.

UMB uses the PeopleSoft system and there are different modules within the same system. ORSP preaward uses PeopleSoft Grants, and once the award is accepted, then goes to postaward PeopleSoft Financials. The Review Team learned that the preaward module is limited and does not transfer over all the necessary fields to help the postaward set up the award in the PeopleSoft Financial. Therefore, the proposal and award information are emailed by preaward to postaward where it is entered manually. The implementation of Kuali Research will help bridge gaps between preaward and postaward because there is a plan to build a feed from it into PeopleSoft Financials.

Typically, extramural policies are broad and written in a manner that leaves room for interpretation. Sponsors expect their funds to be treated in a manner that recognizes specific terms and conditions. Sponsors also recognize that institutions are able to accomplish their research in a variety of methods under a range of administrative structures. In many areas, both federal and non-federal sponsors rely on the institution's own policies and procedures. Within the framework, an institution has the ability to establish its own operations, including policies and procedures to optimize its research and sponsored activities portfolio and appropriately allocate the resources for doing so.

UMB is primarily funded through federal sponsors such as National Science Foundation, National Institutes of Health and Department of Education. As the research enterprise evolves with new and existing faculty submitting a variety of grant proposals, the institution needs to prepare to deal with the different fiscal and programmatic requirements.

Fiscal and administrative duties related to sponsored projects encompass a variety of accounting and management responsibilities. These include the following:

- Financial transaction audit
- Financial reporting
- Budget and expenditure review
- Invoicing
- Fiscal control
- Re-budgeting
- Closeout

Equally important to these responsibilities are those duties involving the facilitation of activities of faculty, researchers, and other university administrative units. These facilitations are accomplished by clear and timely communications between ORSP, the Controller, departmental units and its stakeholders and their role in these respective tasks.

Many sponsored project activities do not fall into a world of "black and white" decision-making. ORSP provides guidance on their website under their Uniform Guidance link which includes a document entitled "What Principal Investigators & Administrators Need to Know". UMB has a toolkit that details the allowability of costs consistent with the uniform guidance (https://www.umb.edu/orsp/pi_toolkit). When an institution accepts a sponsored award, the PIs, departments colleges, and units agree to follow certain cost principles by the sponsor. A cost principles policy statement is important so that PIs, departments, colleges, and units understand what is allowable, reasonable, and allocable and is applied uniformly to all federal awards consistent with the policies and procedures.

- **Recommendation: The AVPR, the Associate Director of ORSP Preaward Support Services, and the Assistant Director of ORSP Postaward Support Services should develop costing policies and procedures.** This policy and procedure will help create uniformity of costs as applied to federal grants.

  Some examples of excellent resources for costing policies:

- University of Colorado at Boulder: https://www.colorado.edu/controller/policies/cost-principles-policy-statement
- University of Houston: https://www.uh.edu/research/sponsored-projects/proc-pol-guide/costing-practices/

ORSP has a late cost transfer justification form (over 90 days) on their website listed in forms. Exception processing should be well documented and clearly communicated to campus units. It also needs to be understood by the ORSP staff. Because they are charged with the responsibility of enforcing extramural terms and conditions, it can be a challenge for the ORSP staff to have a complete set of information to make informed decisions and to exercise flexibility based on the specific set of circumstances.

- **Recommendation: The Assistant Director of ORSP Postaward Support Services should create expenditure exception guidance with a link to it on the late cost transfer form.** This guidance should be clearly communicated to the PIs and departments to help them understand the issues surrounding after the fact reallocations of a cost. Additionally, this information should be communicated to individuals designated as approvers.

Reconciliation is a process of matching transaction data to supporting documentation to ensure the accuracy and validity of financial information on a project. As required by OMB 2 CFR 200, universities must establish internal controls which includes a procedure for viewing transactions charged to a project and validating they are appropriate. There should be detailed supporting documents for every transaction on a project. At many universities, reconciliation is done routinely on a monthly schedule by a department/unit administrator as PIs should not independently reconcile charges made to their own sponsored research awards to ensure segregation of duties. It is important that all expenses are documented prior to billing sponsors. UMB should ensure that systems are in place to implement this internal control and that, upon request, detailed supporting documentation can be provided to the sponsor.

At UMB, there are inconsistent practices in the way in which faculty receive monthly fiscal updates on their research projects. If faculty reside in a department or college with a grant manager, they may be provided updates, but this seems to be an inconsistent practice. Some grant managers are providing quarterly updates. While those faculty who do not have departmental support, are trying to manage on their own.

- **Recommendation: The ORSP Director and the Assistant Director of ORSP Postaward Support Services should establish standard business practices or expectations to help faculty fiscally manage their projects.** This approach should be addressed specifically to those departments that have personnel assigned to assist faculty to fiscally manage their awards with ORSP providing assistance in those areas where departmental assistance is unavailable. UMB has some very knowledgeable departmental administrators who have some great processes in place. This is an opportunity to partner with them and seek assistance in establishing some standard practices. By departmental administrators being involved with the fiscal management of sponsored activities, this will relieve the faculty from the pressure of trying to figure out the financial details of their project and establish a practice of keeping them current.

Award closeout is the final stage of a funded project. It is ORSP postaward, PIs, departments, and college/unit's responsibility to complete the close out of a grant, contract, or cooperative agreement. The guidelines established by the sponsor or agency are specific to the award close out and must be followed appropriately. All these areas on campus work together to verify and/submit required reports. Common items required at close out include the following items: final progress report, final invention report, and final financial status report. It is a standard business practice by universities to start the closeout process three months prior to the end date of the award, by providing close out notifications to the PI and departments/units. This is the time to accurately forecast expenses to ensure that all charges are appropriately expensed to the project timely and to prohibit any overspending. Also, the PI and departments/units should determine if there are any outstanding invoices to be paid off the project. Federal requirements dictate that close outs must submitted no later than 90 days after the award end date. Starting early in this process can help to determine whether or not a no cost extension is necessary. Failure to submit timely and accurate final reports may adversely affect future funding for the university as a whole or for awards with the PI. As noted during the Peer Review interviews, internal close outs have fallen behind. It is important for all units on campus to understand the obligation by the university to closeout internally in a timely manner.

- **Recommendation: The AVPR should update the ORSP website to include a specific section to reflect all necessary fiscal policies and procedures necessary for management of sponsored projects.**

  An example of closeout procedures:

  - University of Colorado Boulder: https://www.colorado.edu/ocg/award-closeout

  An example of a close out checklist:

  - University of Wisconsin – Madison: https://rsp.wisc.edu/closeout/Dept-Div_Closeout_Checklist-2011-07-06.pdf

  An example of a department checklist for close outs:

  - University of Houston: https://www.uh.edu/research/resources/dor-forms/closeouts/dor.ocg.co.0a-appx-a,-dept-checklist.pdf

- **<u>Recommendation</u>: The Assistant Director of ORSP Postaward Support Services should require the postaward team to implement a consistent practice of using the closeout process listed in the UMB Research Administration Roles and Responsibilities Matrix.** This is a resourceful checklist that will help the university comply with sponsor requirements for closeouts. These roles and responsibilities also include the role of the PIs and departments/units.

The ORSP staff were familiar with federal-wide and agency-specific processes for award management and reporting.

Effort reporting is required by federal regulations outlined in OMB 2 CFR 200, known as the Uniform Guidance, and is a process by which the salary charged to a sponsored project is reflected as commensurate to the effort contributed on the project. The federal government requires certification of effort expended by all employees whose salaries are charge to federal and federal flow-through funds. Effort reporting ensures government funds are being spent responsibly and in accordance with the commitments specified in the grant proposal. Although, the roles and responsibilities matrix designate that time and effort certification is completed annually by the principal investigator, in discussion with the faculty and departments/units there is inconsistency in this process. Colleges and departments with a grant manager receive reminders to ensure that effort reporting is completed.

- **<u>Recommendation</u>: The Director of ORSP and Assistant Director of ORSP Postaward Support Services should develop a one-page document for faculty and department/units regarding the procedures for effort reporting and the importance of compliance and post on the ORSP website.** The current link on the website links to the UMass system which is lengthy, and faculty are less likely to read this document.

XXVI. Sponsored Programs Administrative Management.

Clear policies and procedures exist for implementing award requirements, such as record retention, property control, or data retention. The institution has established systems for management of non-financial aspects of awards and the administrative management functions interface with those requirements. The institution has established processes to monitor and report program performance. Clear expectations exist for training appropriate to responsibilities for all level of staff engaged in sponsored programs administrative management at central and unit levels.

The University of Massachusetts Boston has policies on record retention, intellectual property, and property control although the property control policy does not appear to address disposition requirements for equipment purchased from federal funds.

- **<u>Recommendation</u>: The AVPR should assess the opportunity to add clarification to the property control policy regarding disposition of federal equipment and also develop a reporting policy or procedure.**

The university does not currently have a policy on progress reporting or for awards that have annual application requirements. As detailed in standard XXV, the university can set interim deadlines in PeopleSoft, which might be helpful for reminding PIs to submit required progress reports and annual applications, but this is not happening consistently.

- **<u>Recommendation</u>: The Director of ORSP should develop a policy or procedure for progress reporting including how reminders will be provided, who will review the progress report, and how the progress report will be submitted.** This could be helpful in setting the framework for more on-time reporting for both interim and at close out deliverables.

The University of Massachusetts system posted a policy on Responsible Conduct of Research in 2008 that is linked from the UMB research website. This policy states that each campus will develop affiliated procedures for implementation of the Responsible Conduct of Research (RCR). It is important that UMB procedures for RCR training are documented and compliant with sponsor requirements including requirements from the National Science Foundation and possibly the National Institutes of Health and others. The university it in the process of hiring an Assistant Director of Research Compliance to address issues such as this.

- **<u>Recommendation</u>: The AVPR should task the new Assistant Director of Research Compliance or one of the current staff with evaluating UMB's procedure and practices for RCR training.** RCR training and education is intended to provide the campus community with a baseline of information about research ethics issues that may arise and research compliance requirements. Having such procedures in place ensures training is compliant with the existing UMass system policy and sets the tone for ethical research.

As described in prior areas of this report, the institution has no process in place for the IRB or IACUC to communicate with the pre- or postaward regarding approvals. Additionally, there is no process in place for the IRB or IACUC to communicate changes to protocols such as failure to renew during the grant period, changes in review level, or changes in protocols. The research compliance staff assumed that such changes would be communicated to postaward by the PIs. This lack of communication will be addressed by the implementation of Kuali Research modules, however, the institution should put in place interim procedures to address this need prior to implementation of Kuali Research.

The university does not have faculty with salaries above the NIH salary cap currently although the AVPR had awareness of this requirement and is prepared to implement procedures to address this requirement if needed.

While the university's travel policy requires grant funded travel to use US flag carriers, the university has no process in place to ensure compliance with the Fly America Act and individuals interviewed seemed unaware of the requirement.

- **Recommendation: The Assistant Director for Postaward should evaluate the requirements of the Fly America Act and work with the Procurement Office to ensure that a process is put in place for complying with Fly America Act requirements.** Noncompliance with the Fly America Act has the potential to open the university to external audit risk and therefore should be addressed.

Although written procedures do not appear to address communication with sponsors for issues like providing program information requested by sponsor and requesting approval for restricted items, there was broad recognition by the campus research community that ORSP would provide this type of correspondence.

- **Recommendation: The AVPR should draft and implement a brief procedure for communicating with sponsors, detailing the types of communication that must be directed through ORSP.** This procedure can then be shared broadly with the campus community so that there is a clear understanding of the types of sponsor communications that should be directed through ORSP.

The university has not yet identified any contracts with clauses that would trigger Controlled Unclassified Information (CUI) requirements. These requirements are currently applied to DOD contracts but will be implemented in other agencies in the coming years. There are significant IT and administrative controls required for any contracts with CUI requirements so planning in advance is important.

- **Recommendation: The AVPR should coordinate with colleagues at other Commonwealth universities to determine whether they have addressed Controlled Unclassified Information.** It may be possible to utilize resources that have been identified at a sister institution and/or use their approach as a model to prepare for CUI requirements that the University of Massachusetts Boston could receive.

The university has policies and procedures in place to address instances of potential research misconduct. The university does have an anonymous way to report these types of concerns:

https://www.umb.edu/orsp/compliance/report_a_concern#:~:text=UMass%20Boston%20Compliance%20HelpLine%20%2D%20(866)%20415%2D5124

The team learned that during a recent case of potential research misconduct the university utilized the policy but noted that they do not have a standing committee to address these concerns when raised as specified in their policy due to lack of previous reports of research misconduct. Additionally, the policy greatly expands the definition of research misconduct beyond the federal definition of research misconduct which could lead to either additional cases or noncompliance with the policy.

- **Recommendation: The VPR should task the AVPR to evaluate the Research Misconduct policy in consultation with legal and other knowledgeable individuals.** This assessment should include evaluating the policy in relation to other research misconduct policies and federal requirements and also evaluate whether there are portions of the policy that are not being implemented.

The AVPR and AVC for Corporate and Foundation Relations meet regularly as issues and collaborative opportunities arise and have a positive relationship. The University Advancement office has gone through a major reorganization and these changes have started to change the interactions so that they are more proactive than they were in the years before the reorganization. The AVC for Corporate and Foundation Relations has previous experience working in an Office of Research and could serve as a good connection for more close proactive alignment. Research related awards received by the UMass Foundation are transferred to ORSP for management. ORSP manages any compliance requirements that come in on these awards.

Appendix A: Standards for Effective Sponsored Program Operations

The National Council of University Research Administrators (NCURA) developed these Standards to represent the institutional baselines that provide a supportive environment for the conduct of research and other sponsored activities as well as the broad operational and core functional areas of sponsored programs management.

Unlike an audit, this Peer Review performs an assessment of your research administration “program” that goes beyond merely highlighting deficiencies in process. The assessment contains three interrelated features: senior and experienced research administrator Reviewers, the Standards, and a philosophical approach that provides consistency in the review process with an understanding of institutional culture. These key features result in an assessment of ***effectiveness*** of sponsored research environments at the institutions undergoing Peer Review.

The NCURA Standards are used by experienced and senior research administrators to assess the effectiveness of the research administration program. While recognizing that institutions differ in organizational structure and institutional priorities, these Standards reflect how the institution integrates the research enterprise with its institutional goals and expectations and operationalizes effective sponsored programs administration. The Standards allow Reviewers to assess how closely that integration relates to institutional and stakeholder goals and expectations. The Standards contain a list of over 165 features that are utilized by the Reviewers during their assessment and that are used as the basis for the written report.

Appendix B: NCURA Peer Review Team Bios

PEER PROGRAMS
PEER ASSISTANCE BY RESEARCH ADMINISTRATORS FOR RESEARCH ADMINISTRATORS

University of Massachusetts Boston
Reviewer/Advisor Bios

The National Council of University Research Administrators offers a formal system of assessment for sponsored programs and research compliance (Peer Review) and focused assistance (Peer Advisory Service). Both programs provide information on effective practices, techniques for success, and models of excellence. Setting standards and identifying quality of organizational performance are expected functions of all organizations.

Aurali Dade, TEAM LEAD
Number of Years in Research Administration: 21
Current and Prior Institutions: Texas Tech University Health Sciences Center, University of Nevada Las Vegas, George Mason University (current)

Aurali Dade Aurali Dade is the named interim Vice President for Research, Innovation and Economic Impact at George Mason University and President of the George Mason Research Foundation. In this role, starting on August 1, 2020, she serves as the university's chief research officer, providing overall vision for and execution of the university's research, innovation and economic development programs.

Dade is the Associate Vice President for Research and Innovation at George Mason University. As Associate Vice President, Dade is responsible for developing and implementing university strategy for fostering a dynamic, supportive and growing research ecosystem. Dade provides leadership for the Research and Innovation Initiatives (RII) team which includes programs, offices, centers and institutes that are focused on supporting, connecting, communicating about, and convening researchers internally and with external partners.

Dade also served as the inaugural Executive Director of Mason's Institute for a Sustainable Earth (ISE) from 2019-2020, launching the institute and hiring a full time Executive Director. ISE has the mission of connecting members of the Mason community with others across the Mason community-and with other communities, policy makers, businesses, and organizations-so that, together, we can more effectively address the world's pressing sustainability and resilience challenges.
Dade previously served as the Associate Vice President for Research Development, Integrity and Assurance (RDIA) from 2016-2019 and the Assistant Vice President for Research Integrity and Assurance from 2012-2016 leading programs in research development, and having broad responsibilities for research compliance programs including secure research, export compliance, human subjects protection, animal care and use, conflicts of interest, responsible conduct of research and others.

At the University of Nevada Las Vegas from 2003-2012, Dade served in several roles. She supported occupational safety, served as the biosafety officer and developed the biosafety program, led the laboratory safety and environmental compliance group (including radiation safety, chemical safety, biological safety and all aspects of environmental compliance including the asbestos abatement program). She then went on to create and lead the Office of Research Integrity with responsibilities for export compliance, human subjects protection, animal care and use, conflicts of interest, responsible conduct of research, and institutional biosafety committee management.

At Texas Tech University Health Sciences Center from 1999-2002 she provided overall oversight for laboratory safety programs; directing the laboratory safety training programs for over 500 laboratories at four sites, serving as the responsible official for the select agents program, the biosafety officer, and the chemical hygiene officer.

Dade has a PhD in Environmental Science, an MS in Biology, and a BS in Environmental Biology. She has taught university classes focused on data ethics, risk, environmental science, and biology. Dade serves as the PI for the *Earth Commission subcontract to the Mason Institute for a Sustainable Earth*, served as co-PI for the HHS funded conference grant: *Promoting Research Integrity in Multidisciplinary and Multiteam Based Science Initiatives* (2017) and PI for the HHS funded conference grant: *Supporting Responsible Research Organizations: A Framework for Engaged Research Managers and Administrators* (2016). She has published articles related to research administration and integrity, sustainability, and biology. She also served as the lead editor and author of two chapters for: *Implementing a Comprehensive Research Compliance Program: A Handbook for Research Officers*, a book published by Information Age Press in 2015.

Peggy Lowry

Number of Years in Research Administration: 44
Institutions: University of Illinois at Urbana-Champaign, Oregon State University, Ball State University, Murray State University

Peggy Lowry has been a team member or team lead on over 35 peer reviews of research administration offices, served as reviewer for over 80 peer review reports, received evaluations of her offices, and has taught national workshops on sponsored program assessment. Peggy has led office self-studies and participated in institutional accreditation self-studies. She authored the chapter: "Assessing the Sponsored Research Office" (NCURA/AIS *Sponsored Research Administration—A Guide to Effective Strategies and Recommended Practices*), has completed a revision of that chapter in 2016, and published peer reviewed articles including: "But the Emperor Has No Clothes On! Or Assessing Your Operation with Fresh Eyes" and "Learning Your ABCs: Adaptability, Balance, and Culture" (NCURA Magazine).

Peggy served until her retirement in 2007 as Director of Sponsored Programs and Research Compliance at Oregon State University where she oversaw pre-award sponsored programs ($250+ million in awards), non-financial research compliance areas, developing the institution's export control program, and served as Conflict of Interest Officer. She returned to OSU from retirement to assist by leading the University's new Office of Research Integrity until 2011 (including areas of human and animal use, conflict of interest, diving safety) and working with related offices for research misconduct, biosafety, and chemical safety, when she retired again.

Peggy began developing the NCURA Peer Programs (Peer Advisory Services and Peer Review Program) in 2007 and became a full-time NCURA employee in 2011 and served as the Founding Director until her retirement in 2017. Until spring 2019 Peggy continued to assist the NCURA Peer Programs management as an Executive Consultant. She created and provided training for newly appointed peer reviewers, worked with an oversight committee on program priorities and directions, and served as quality control for resulting institutional reports. Peggy continues to serve as a Peer Advisor and Peer Reviewer.

Her university career includes 11 years at Oregon State University; 22 years at the University of Illinois--Urbana-Champaign as Assistant Vice Chancellor for Research/Director, with 10 years as a College-level administrator; and seven years in predominantly undergraduate universities: Ball State University and Murray State University in Director and Associate Director positions. At all of her universities she has worked extensively with faculty, Deans, and senior leadership, as well as departmental administrators and administrative offices. She served on numerous university/faculty committees, created/implemented university-wide policies, and engaged in department-central research administrator networking groups. At all of her institutions she has taught faculty proposal writing workshops and how to analyze and interpret sponsor opportunities. At Ball State and Murray State she additionally focused on faculty development, institutional incentives for research, and integrating research with undergraduate education. While at Murray State University, she created a faculty Research Policy Committee to help promote the role of research at a predominantly undergraduate university; increased emphasis on research led to doubling the sponsored programs award level within 3 years.

Peggy has given over 300 national, regional and local presentations and workshops for multiple organizations. She has served on numerous national NCURA committees and twice served on their Board of Directors. During her career she served as a NCURA national workshop faculty for Fundamentals of Research Administration and Sponsored Projects Administration Level II, Chair of the Nominating and Leadership Committee, a member of the Editorial Review Board for *A Guide to Managing Federal Grants for Colleges and Universities,* and co-Chair of the NCURA newsletter. Peggy received NCURA's national Award for Distinguished Service in Research Administration in 2006 and the Award for Outstanding Achievement in Research Administration in 2011. In 2014 she served as an author for the NCURA Micrograph *The Role of Research Administration*. In 2019 Peggy wrote the on-line learning publication *Improving Efficiencies: Assessing the Sponsored Research Operation*. She additionally served several terms on the Board of Directors of the International Society of Research Administrators, on numerous committees and as Regional Chair, and received several national awards from that organization. She has been a member of the Council on Governmental Relations.

Robyn Remotigue

Number of Years in Research Administration: 25
Institutions: Mississippi State University and University of North Texas Health Science Center at Fort Worth

Robyn Remotigue is the founding Director of Research Services for the School of Public Health (SPH) at the University of North Texas Health Science (UNTHSC) at Fort Worth. In her current position she oversees a small departmental team who is responsible for pre-award, post award and compliance administration of an average $5 million in annual sponsored projects within SPH. Her experience with grants and contracts management at various institutions has provided her with 25 years of knowledge at both the central and departmental level.

While serving as Assistant Director of the Office of Sponsored Projects (OSP) at Mississippi State University (MSU), she provided assistance in managing a research portfolio of approximately $145 million. During her tenure she founded the subcontract managing unit within the OSP in response to the 2 CFR 200 Uniform Guidance. She also created and developed curriculum for the university department administrator certification program entitled Departmental Administrator Working Group (DAWG) at MSU. In addition, she was the senior contract negotiator for defense industry contracts involving the Bagley College of Engineering and the Center for Advanced Vehicular Systems.
Since moving to the departmental area, she has led the start of a cost center and introduced electronic clincards for payment of research participants as well as creating other various processes and procedures to help manage the lifecycle of awards.

Her senior research administrator experience provides with her with distinct skills in research development and evaluation of policies and procedures as well as the ability to investigate, analyze and problem solve to develop solid decisions. She provides consultation and guidance on all aspects of research administration including the interpretation and implementation of policies and regulations concerning sponsored research. She has represented her institutions on site visits and with funding agencies. In addition, she has been involved with the strategic implementation of a new organizational structure to support research operations and the implementation of change management activities to support this effort.

Past positions include Grants Information Specialist and Regulatory Compliance Officer both at Mississippi State University. In addition, she has served on many university committees such as the UNTHSC President's Research Council, UNTHSC Research Advisory Council, SPH Executive Council, and a graduate of the UNTHSC Navigating Leadership Development Program.
She has been a member of NCURA since 1998. She served and held a number of positions at the regional level such as the Region III Volunteer coordinator and Region V Chair of the Mustang Mentoring Program. She has also held positions on national committees including the At-Large Member of the NCURA Board of Directors, Nominating Leadership and Development Committee (NLDC), Professional Development Committee (PDC) and a number of program committees. She has presented workshops and sessions and evaluated workshops at both regional and national meetings. She is a graduate of the Executive Leadership Program and Leadership Development Institute.

In addition to serving as a Peer Reviewer, Robyn is part of the NCURA workshop faculty who teach Level II: Sponsored Projects Administration. She is also a contributing editor for the NCURA magazine.

NCURA Staff Assisting with this Engagement

Mary Louise Healy

***Number of Years in Research Administration:* 28**
***Institutions:* Johns Hopkins University, Towson University (formerly Towson State University)**

Mary Louise has been a research administrator since 1988, at both research-intensive and predominantly undergraduate institutions, public and private. Since November 2011, she has led the research administration staff of the Krieger School of Arts and Sciences (KSAS) at Johns Hopkins University, first as Associate Director and currently (since August 2013) as Director. As such is responsible for pre- and post-award administration of all awards for the School, totaling approximately $78 million per year. She serves as advisor to the Vice Dean for Natural Science on all matters relating to sponsored projects, including funding trends and policy formulation. Prior to her position in KSAS, she worked at Towson University for 21 years, first as Assistant Director of the Office of Research Administration (1990-1994), then as Director of that office (1994-2007), and finally as Assistant Vice President for Research (2008-2011). At Towson University, she was responsible for all pre- and post-award activities of the University, including financial post-award and compliance functions.

During her tenure at Towson University, sponsored projects funding increased steadily each year, most years by 10% or more. As sponsored funding increased, so did compliance issues and thus staffing needs. The office grew and was reorganized several times under Mary Louise's tenure, to ensure continuing compliance without sacrificing customer service and individualized research development services to investigators.

At Towson University, Mary Louise was the IRB administrator; had responsibility for committing and tracking institutional cost share funds; administered three separate internal funding programs; and was responsible for research and sponsored projects communications as well as for the day-to-day management of proposals and awards.

Prior to joining Towson University in 1990, Mary Louise served first as Research Services Assistant then as Sponsored Projects Specialist at Johns Hopkins University Homewood Research Administration, first concentrating on identifying funding opportunities then moving into day-to-day proposal and award management.

Mary Louise is a long-time member of NCURA and is currently a member of the Board of Directors. She has served as Chair for Region II, co-Chair for the Pre-Award Research Administration conference in 2014, Chair for the Region II Spring Meeting in 2013, co-Chair for the Region II Spring Meeting in 2012, and as a member of the Region II Leadership Development and Nominating Committee (2013-2015). She is currently serving as a member of the Region II Steering Committee, a mentor in the Region II Cheryl-Lee Howard Mentor Me Program, as co-Chair of the Mentor Me Committee, and as a traveling workshop faculty member for Region II. She has presented extensively at national and regional meetings. Mary Louise is a graduate of the NCURA Leadership Development Institute and Executive Leadership Program.

Additionally, Mary Louise is an adjunct faculty member at the Community College of Baltimore County where she teaches a non-credit course on proposal writing and an adjunct faculty member at Towson University, where her courses have included Grant Writing in Education (graduate course), Using Information Effectively, and Seminar in Media and Medicine (undergraduate courses).

Appendix C: Charge Letter

Charge and Site Visit Itinerary

Insert a copy of the Charge Letter followed by a copy of the site visit itinerary.

Megan Fornasar,
NCURA Peer Programs
National Council of University Research Administrators
1015 18th Street NW, Suite 901, Washington, DC 20036
(202) 466 – 3894
www.ncura.edu

August 28, 2020

Dear Ms. Fornasar,

The University of Massachusetts Boston requests an NCURA Peer Review of our administrative research support structure and systems. In the interests of maintaining an effective, responsible administrative organization, I intend to periodically review the various special administrative units within the purview of the Vice Provost for Research. One of these units, the Office of Research and Sponsored Programs (ORSP), has been under the aegis of the Vice Provost for Research and Dean of Graduate Studies for over two decades. As the university focused on becoming a research university in the early 2000's, external funding has grown from $17.9M in FY2000 reaching a peak of $63.7M in FY2018 and most recently at $56M for FY2020; IRB applications increased from 180 in FY2012 to 370 in FY2020; Core Research Facilities increased from 1 in 2011 to 5 in FY2020. I believe that both ORSP and the campus research has matured to an extent that a review of its functions and operations is warranted, and I anticipate such an external review will occur every 5-7 years.

Since the last review of ORSP in 2011/12, the University has better defined its stature as a research university. Many new faculty bring their own research funding, and have matured expectations. Research Core Facilities have been formed; Research Faculty Council has collaborated with research administration leadership; Campus Strategic Plans have focused on research successes. With growth and success, along with campus financial challenges, the impacts have become greater, and an assessment of grant support in the current context is needed. If the campus would like to continue to expand current levels of external funding, with the achievable goal of getting closer to $100M in external funding, the administrative structures, the supporting units and the intersections of each need to be defined and supported. This peer review is intended to guide us along this path by focusing on these areas and providing the necessary contexts, benchmarking, areas for emphasis and best practices.

I understand that the review will utilize the NCURA Standards. However, in your review, I ask that you pay particular attention to the following:

- Staffing levels and roles and responsibilities of central office research administration
- Structure of university research leadership
- The allocation of research administration resources in ORSP and in academic units across campus, and the optimal balance of, and communication between, central and dispersed resources
- Research compliance competencies
- Optimal structure for and allocation of research resources in a budget-constrained environment

I thank you in advance for your willingness to undertake this activity.

Bala Sundaram, Ph.D.
Vice Provost for Research and Dean of Graduate Studies

Appendix D: Site Visit Itinerary

Date	Time	Meeting	Umass Boston Invitees
1-Sep	400-500	Pre Site Visit Call	VPR Sundaram; VC for HR Bowen; AVP for Research/ORSP Meyer, Provost McDermott
14-Sep	200-300	VPR	•Bala Sundaram, Vice Provost for Research and Dean of Graduate Studies
14-Sep	315-400	AVPR	• Matthew Meyer, Associate Vice Provost for Research and Director of the Office of Research and Sponsored Programs
14-Sep	415-500	Senior Faculty Group 1 of 2	• Zong-Guo Xia, Professor of Geography, School for the Environment, former Vice Provost for Research • Ellen Douglas, Professor of Hydrology, School for the Environment • Jessica Whiteley, Associate Professor, Associate Dean of Research • Haeok Lee, Professor, Nursing • Jill Macoska, Alton J. Brann Endowed Distinguished Professor in Science and Mathematics & Cancer Biology. • Adán Colón-Carmona, Professor of Biology - Cell, Genetics and Molecular Biology of Plants • David Landon, PhD, Associate Director of the Fiske Memorial Center for Archaeological Research, Department of Anthropology, College of Liberal Arts
15-Sep	200-315	PreAward Manager	Shala Bonyun, Associate Director of ORSP Preaward Support Services
15-Sep	330-415	PreAward Staff	• Michael Gaughan, Grant and Contract Administrator III • Liliana Teixeira, Grant and Contract Administrator III • Maggie Mode, Grant and Contract Administrator III (Temp)
15-Sep	430-500	Administration and Finance	• Kathleen Kiraleis, Vice Chancellor for Administration and Finance •Chris Guilliani, Associate Vice Chancellor for Administration and Finance • Patricia Overko, Controller
16-Sep	200-315	PostAward Manager	•Matthew Meyer, Associate Vice Provost for Research and Director of the Office of Research and Sponsored Programs •Rebecca Hanson, to be named Assistant Director of ORSP Post Award Support Services (pending HR appoval)
16-Sep	330-400	PostAward Staff	• Edward Bulman, Financial Research Administrator IV • Ashley DePasquale, Financial Research Administrator III (on leave) • Yen Truong, Financial Research Administrator II • Megha Rooban, Financial Research Administrator I
16-Sep	415-500	AVPR	• Matthew Meyer, Associate Vice Provost for Research and Director of the Office of Research and Sponsored Programs

18-Sep	200-300	PostAward Consultants	• Nadia Kikilo, Attain consultant (since Spring 2020) • Nicole Cohee, Attain consultant (since Winter 2018)
18-Sep	315-400	Junior Faculty Group	• Serra Acar Assistant Professor of Early Childhood Education and Care, College of Education and Human Development • Rhiana Wegner, Assistant Professor of Psychology, College of Liberal Arts • Changmeng Cai, Assistant Professor of Biology & Cancer Biology, College of Science and Mathematics • Catherine McCusker Assistant Professor of Biology- Developmental Biology, College of Science and Mathematics • Daniel Dowling, Assistant Professor of Chemistry, College of Science and Mathematics • Daniel Haehn, Assistant Professor of Computer Science, College of Science and Mathematics • Alan G. Wiig, Assistant Professor, School for the Environment • Kai Zou, Assistant Professor, Department of Exercise and Health Sciences • Valerie Karr, Assistant Professor, International Development, School for Global Inclusion and Social Development • Amit Patel, Assistant Professor, Department of Public Policy and Public Affairs, McCormack Graduate School • Joel Fish, Assistant Professor, Department of Mathematics, College of Science and Mathematics
18-Sep	415-500	Senior Faculty Group 2 of 2	• Hannah Sevian, Professor of Chemistry, College of Science and Mathematics • Anne Douglass, Professor, Founder and Executive Director, Program Director, Bachelor's and Post Master's Certificate Programs in Early Education and Care, College of Education and Human Development • Jan Mutchler, Professor of Gerontology • Sheila Fesko, Associate Dean and Director, School for Global Inclusion and Social Development; Program Manager, Institute for Community Inclusion • Crystal Schaaf, Professor of Remote Sensing/GIS, School for the Environment • Wei Zhang, Professor of Chemistry and Director of the Center for Green Chemistry, College of Science and Mathematics • Matthew Bell, Assistant Professor, Department of Engineering, College of Science and Mathematics
22-Sep	430-5:30	AVPR	• Matthew Meyer, Associate Vice Provost for Research and Director of the Office of Research and Sponsored Programs
23-Sep	300-4:00	AVPR	• Matthew Meyer, Associate Vice Provost for Research and Director of the Office of Research and Sponsored Programs

25-Sep	200-245	Department Administrators (1 of 2)	• Caitlin McGovern, CEHD-SGISD/ICI • Ryan Fitzgerald, Chem • Erin Pelton, CEHD • Annie McCluskey, Psych • Eric Berry, Psych • Meghan Jackman, CNHS • Josie Sturgis, Gerontology/MGS • Mette Kruetzmann, MOPC.MGS • Lexis Salters, U54 • Carlos I Henriquez, MGS • Alan Abend, Assistant Dean, School for the Environment
25-Sep	300-345	Department Administrators (2 of 2)	• Maria Mahoney, Administrative Director, Biology • Claudia Heske, IMSD Program Manager, Biology • Caitlin McGovern, CEHD-SGISD/ICI
25-Sep	400-430	IRB and IACUC	•Sharon Wang, IRB Manager • Elizabeth Boates, IACUC Administrator
25-Sep	430-500	EH&S	•Zehra Schneider Graham,Director EH&S • Lalitha Adusumilli, Associate Director EH&S
28-Sep	200-300	Deans	• Arindam Bandopadhyaya, Dean of the College of Management • Joseph Berger, Dean of the College of Education of Human Development • David Cash, Dean of the McCormack Graduate School • Robert Chen, Interim Dean of the School for the Environment • Robin Cote, Dean of the College of Sciences and Mathematics • Joanne Riley, Interim Dean of University Libraries • Rajini Srikanth, Dean of the Honors College • David Terkla, Dean of the College of Liberal Arts • Linda Thompson, Dean of the College of Nursing and Health Sciences
28-Sep	315-345	University Advancement	• Adam Wise, Vice Chancellor for University Advancement •Kimberly Gentry, Associate Vice Chancellor, Corporate and Foundation Relations • TBD
28-Sep	400-430	Core Facility Administrators	• Serena Wang, Program Manager, Venture Development Center

28-Sep	430-500	Core Facility Directors	• Jill Macoska - Professor of Biology, Director of the Cancer for Personalized Cancer Therapy, Faculty lead of the Genomics Core Facility • Jason Evans, Associate Professor of Chemistry; Faculty lead of the Proteomics Core Facility • Catherine McCusker, Assistant Professor of Biology; Faculty lead of the Flow Cytometry Core Facility
29-Sep	200-300	AVPR	• Matthew Meyer, Associate Vice Provost for Research and Director of the Office of Research and Sponsored Programs
29-Sep	330-500	Faculty Council - Research Subcommittee	• (Chair) Rosalyn Negrón - Associate Professor of Anthropology, College of Liberal Arts • Alice S Carter, Professor, College of Liberal Arts • Lindsay Fallon, Assistant Professor of Counseling and School Psychology, College of Education of Human Development • Jan Mutchler, Profess of Gerontology, McCormack Graduate School • Teri Aronowitz, Professor of Nursing, College of Nursing and Health Sciences, • Wei Zhang, Professor of Chemistry, College of Sciences and Mathematics • Dolly Daftary, Assistant Professor, International Development, School for Global Inclusion and Social Development • Philip Troped, Associate Professor, Department of Exercise and Health Sciences • David Levy, Professor of Management • Alan Wiig, Assistant Professor, School for the Environment
15-Oct	430 -530	Exit Meeting, if necessary	• Bala Sundaram, Vice Provost for Research and Dean of Graduate Studies • Marie Bowen, Vice Chancellor for Human Resources • Emily McDermott, Interim Provost (retiring 12/31/2020) • Matthew Meyer, Associate Vice Provost for Research and Director of the Office of Research and Sponsored Programs
22-Oct	400-4:30	Human Resources	Marie Bowen, Vice Chancellor for Human Resources

Appendix E: NCURA Resources

NCURA as an organization is the essence of my professionalism in the sense that this is where I've learned and grown as a research administrator and it is an opportunity to continue that growth from here to the future"

Dave Richardson
Associate Vice Chancellor for Research
University of Illinois at Urbana-Champaign
NCURA Distinguished Educator

WHO ARE RESEARCH ADMINISTRATORS AND WHAT IS NCURA?

The Research Administrator works with dedicated and brilliant researchers and scholars who often are on the cutting edge of their field and with the government and private sponsors that require stewardship for the funding they provide. NCURA is the professional home to 7,000+ research administrators, and we foster innovative and collaborative education and networking as we support research...together.

NCURA Supporting Research...together™

NATIONAL COUNCIL OF UNIVERSITY RESEARCH ADMINISTRATORS
1015 18th Street NW, Suite 901
Washington, DC 20036
+1 (202) 466-3894 | www.ncura.edu

GUIDE TO NCURA'S MEMBERSHIP BENEFITS, EDUCATION, AND PROGRAMS

MAXIMIZE YOUR NCURA MEMBERSHIP

MEMBERSHIP BENEFITS INCLUDE:

- ✓ Access to our **professional networking site Collaborate** – home to our listservs, communities, discussions, resource libraries and Volunteer Central. This is a great place to connect with other Research Administrators, discuss hot topics, share best practices, and stay ahead of the curve in the administration for research.
- ✓ **Automatic membership** into one of our **eight regions** connects you with other Research Administrators in your area.
- ✓ **Volunteering** gives you the opportunity to establish a strong network of peers, to acquire new skills and experiences, to help guide the future of NCURA, and to help advance the profession of Research Administration.
- ✓ **NCURA Magazine's e-Xtra** is a compilation of the very latest news and must-read information sent directly to your inbox each Monday.
- ✓ NCURA members who enroll in the **JHU online Master of Science in Research Administration Program** will receive a 10% discount.
- ✓ **Exclusive member discounts** for all NCURA meetings, conferences, education, and bookstore purchases.
- ✓ **Free postings to NCURA's Career Center** (a savings of $300 per posting) as well as access to all current job listings.
- ✓ Access to NCURA's **Member Directory** to find the colleague you need by area of expertise and responsibility to **grow your network**.
- ✓ Access to both current and past issues of the **NCURA Magazine**, published six times a year.
- ✓ **Members-only access** to educational videos from meetings and conferences including full session videos.
- ✓ Weekly 2-3 minute videos on diverse topics posted to our **YouTube Tuesday** channel, which can be used in institution on-campus training programs.

NOT A MEMBER YET? JOIN TODAY!

MEETINGS & CONFERENCES

NCURA HOSTS 3 NATIONAL MEETINGS A YEAR

Annual Meeting of the Membership

The annual meeting of the membership is held in August each year in Washington, DC. Over 2,000 of our 7,000+ members attend. We begin with a full day of workshops and senior level seminars which are a supplemental training program open to all registrants of the annual meeting. This in-depth, targeted training and professional development includes offerings for those new to the profession to our most senior level members.

We then embark on two and a half days of presentations, discussions, open forums and networking opportunities spanning all areas of research administration including, but not limited to, Pre-Award, Post-Award, Compliance, Departmental, Intellectual Property, Contracts, International, Predominantly Undergraduate Institutions, Electronic Research Administration, and Medical Center/Hospital Issues. This also includes our Sunday and Tuesday evening events, dinner groups, regional networking events, and numerous volunteer activities that create the opportunities for you to meet and connect with your colleagues and create your peer network. In addition to the education and networking opportunities provided, our sponsor and exhibitor partners will be available to share information on the products and services to support you and your institution.

Financial Research Administration (FRA)

Join over 1,000 members for this special topic conference on post-award issues, held every year in a new location between February and late March.

Pre-Award Research Administration (PRA)

This conference of over 600 participants is held back to back with the FRA conference noted above, covering in-depth pre-award sessions and discussions.

TRAVELING WORKSHOPS

NCURA offers 7 different workshops that are 2 or 2 ½ days and travel around the country throughout the year. And, with a commitment of 60 participants, NCURA can bring one of these 7 workshops to your campus!

- Contract Negotiation and Administration Workshop
- Departmental Research Administration Workshop
- Export Controls Workshop
- Financial Research Administration Workshop
- Level I: Fundamentals of Sponsored Project Administration
- Level II: Sponsored Project Administration: Critical Issues in Research Administration
- The Practical Side of Leadership: A Senior Level Workshop

NCURA Workshops: Global Edition

NCURA has hosted workshops in Europe, Africa, the Middle East, and Asia focused on the fundamentals and advanced topics of research administration. These workshops also serve as venues for forming research collaborations and partnerships while also enabling research administrators to develop their professional networks. Workshops can be customized to fit the needs of your institution. Previous workshop topics have included:

- Funding Opportunities
- Successful Grant Proposal Preparation
- Financial Management
- Regulatory Compliance

For more information on how you can bring this workshop to your country, please contact Claire Chen at chen@ncura.edu

I greatly enjoyed the dynamic employed by the presenters, who were all clearly collegial and comfortable with each other's differing styles. The depth and breadth of their knowledge and passion for the subject matter was clear, yet they were still accessible and entertaining."

Michael Gouin-Hart
Director, Office of Sponsored Programs
Grand Valley State University

ONLINE LEARNING

NCURA 10 WEEK ONLINE TUTORIALS - LEARN AT YOUR OWN PACE!

These primers are intended for those new to each area or who have had very limited exposure.

A Primer on Intellectual Property in Research Agreements
A broad introduction to the basics through actual research and licensing agreements, plus negotiation tips.

A Primer on Subawards Under Federal Assistance Awards
An overview of the complex process from drafting and negotiating through review.

A Primer on Federal Contracting
Understand the federal contracting process, regulations, negotiation and risks.

A Primer on Clinical Trials Management
Focused on Clinical Trials Management, including key administrative, financial and regulatory issues that arise from planning through close-out.

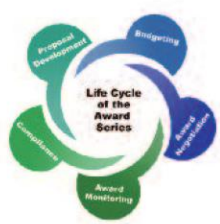
REGISTER TODAY AND START THE FIRST LESSON anytime that works for your schedule. You will have ten weeks, from the first time you login, to complete the course.

WEBINARS

1. License to use as onboarding training or include in your existing campus training
2. CEUs available for all participants
3. Registrations include on-demand viewing and MP4 downloadable copy

Recent Topics Include

- Research Terms and Conditions
- Effort Reporting
- Data Security
- Regulated Research Data
- The Revised Common Rule
- Cost Sharing
- Data Transfer and Use Agreements
- Developing Policies and Procedures
- Managing Risk in an International Environment
- Communication Strategies for International Collaboration
- Communication with PIs
- Internal Controls
- Single IRBs
- Public Access Policies
- Diving Into Contracting



LIFE CYCLE SERIES

The Life Cycle video webinar series covers the major components of the research project life cycle. The webinar recordings, case studies, forms and supplementary resources can be incorporated into your institution's on-boarding and continuing education programs.

- Compliance – 2 Part Series; Two hours each
- Award Monitoring/Award Management – 2 Part Series; Two hours each
- Award Negotiation and Acceptance – 3 Part Series; 90 minutes each
- Pre-Award / Budgeting – 3 Part Series; 90 minutes each
- Proposal Development – 3 Part Series; 90 minutes each

NCURA WEBINARS AND LIFE CYCLE OF THE AWARD SERIES ARE YOURS TO KEEP!

Registration includes a license for your institution to download, post and embed the webinar in your institution's internal training systems for continuous use on your campus!

Available at onlinelearning.ncura.edu

| PUBLICATIONS AND PROGRAMS |

PUBLICATIONS

Need to expand your knowledge? Visit the NCURA Store online for more information and to purchase these affordable resources!

- Compensation – Personal Services: Managing and Reporting Effort
- Cost Sharing: An Overview
- Facilities and Administrative Costs in Higher Education
- Establishing and Managing an Office of Sponsored Programs at Predominantly Undergraduate Institutions
- A Primer on Clinical Trials for the Research Administrator
- A Primer on Intellectual Property
- The Role of Research Administration
- Writing and Negotiating Subawards
- Regulation and Compliance: *A Compendium of Regulations and Certifications Applicable to Sponsored Programs*
- Sponsored Research Administration: *A Guide to Effective Strategies and Recommended Practices*
- Uniform Guidance Desk Reference

On-demand Downloadable Publications

- How to Manage a Financially Focused University Research Audit Effectively
- A Primer on Export Controls
- *Additional topics coming soon!*

Research Management Review (RMR) – NCURA's Online Scholarly Journal

As the scholarly journal for NCURA, the RMR is concerned with the broad range of issues affecting the administration of research and the changing research environment at the national and international levels.

NCURA Magazine

NCURA's magazine is published six times a year with cutting edge pieces on management, perspectives on federal policy written by members and non-members, and the latest information and explanations on topics of interest to Research Administrators.

FELLOWSHIP PROGRAM

NCURA Fellowship programs are a joint initiative between NCURA and our sister research administration organizations as well as between our U.S. Regions and the International Region. These programs are intended to reduce barriers to global research administration and create an administrative framework conducive to global research collaboration. NCURA currently offers 5 different Fellowship programs a year. The Fellowship programs have two underlying objectives: (i) the training of research administrators, and (ii) enhancing global research collaboration. These Fellowship programs will provide an opportunity for research administrators to travel to another country's research organization and to immerse themselves in a program of mutual learning and knowledge exchange.

PEER REVIEW PROGRAM

Are you looking to enhance your sponsored programs operation or to engage leadership in a discussion about research administration? In a confidential process similar to an academic program review, NCURA matches a team of senior research administrators to your institution. The review uses Standards that represent the core and vital functions of sponsored programs, regardless of size and type of institution. After reviewing background materials you provide, the Reviewers conduct 360-degree interviews with institutional stakeholders during a site visit. At the completion of the review, the institution receives a detailed written report that provides valuable feedback addressing program strengths and areas for improvement. Use NCURA Peer Review for risk management/compliance, enhanced faculty service, operational efficiencies, business process improvement, and improved communications.

PEER ADVISORY SERVICES

NCURA Peer Advisory Services assist institutions in planning research administration infrastructure and priorities, as well as with addressing specific areas within the institution through deep analysis or education on specific topics.

- Research Administration Planning
- Focused Analysis
- Directed Education

For more information visit: www.ncura.edu/institutionalprograms/peeradvisoryservices