

2030 Research Infrastructure Implementation Team Final Report

UWM is a unique institution in Wisconsin. We are categorized by Carnegie as both a “highest research activity” (R1) and “Community-Engaged” campus, and we have a strong access mission. This unique combination requires resources in order to thrive as a research university and retain our R1 status and to continue providing access to high-quality education for historically underrepresented students. Moreover, UWM’s research, teaching, and service missions play a core role in the economic growth of both Milwaukee and Wisconsin. Therefore, UWM needs an infrastructure that can sufficiently support these important contributions.

The 2030 Research Infrastructure Task Force was charged with examining all aspects of UWM’s research support operations to optimize support for UWM’s status as an R1 research university. The scope of its work included examining the university’s research administration, campus resources, campus culture, and campus budgetary practices related to research. Previous planning informed the four primary goals of the Task Force: (1) enhance collaboration and team science, (2) promote innovation, (3) reduce researcher burden, and (4) generally enhance research productivity.

The Task Force met throughout the 2021-22 academic year. In Fall 2022, the Task Force focused on identifying the core components of UWM’s research infrastructure and on creating guiding principles that should drive decision-making and resource allocation. **As a result, the Task Force identified seven guiding principles for supporting UWM’s research infrastructure:**

1. Align resources to allow scholars to carry out their research commensurate with UWM’s R1 status.
2. Promote and support resource sharing and a collaborative campus research culture.
3. Facilitate innovation and the development of promising new lines of research and creative activities through campus initiatives.
4. Promote and support Diversity, Equity, and Inclusion throughout individual and collaborative research and creative activities.
5. Promote and support student engagement in research.
6. Promote and support transparency and public awareness of UWM research and creative activities.
7. Promote and support translational research, industry partnerships, and technology commercialization.

During Spring 2022, the Task Force explored these guiding principles. In support of the first guiding principle, the Task Force requested that UWM’s administration support an external peer review of UWM’s research infrastructure by the National Council of University Research Administrators (NCURA), which provides comprehensive evaluations of research operations. The Office of Research completed a self-study for this review in early spring and hosted a site visit in May 2022. A final report was provided to UWM in August 2022, which included several primary recommendations along with 62 detailed recommendations which focused on the internal operations of the Office of Sponsored Programs and can be found in the final report.

Based on these efforts, the recommendations of the 2030 Task Force and the NCURA review team can be viewed broadly through three lenses: *People, Process, and Place*.

PEOPLE

Research Personnel

People (both faculty and staff) form the basic infrastructure for research. As noted in the original 2030 report, “Maintaining a robust critical mass of faculty and staff is central to the university’s ability to achieve its mission as a research university.” The Task Force emphasizes that in order for UWM to maintain its R1 status, the most critical infrastructure need is to strategically replenish its numbers of faculty and staff. Over the past decade, UWM’s faculty and staff numbers have decreased dramatically, which is seriously impacting our teaching, research, and public service missions. Reversing this trend will require securing funding to replace lost faculty/staff as well as strengthening an environment that puts its people first and promotes retention of current faculty/staff. This includes addressing pay inequities that exist for UWM’s faculty, staff (full- and part-time), and graduate students.

Inclusive Infrastructure

Research infrastructure cannot be separated from the working conditions of the researchers themselves. As we work to improve UWM’s internal culture, the Task Force recommends adopting what it termed an “inclusive infrastructure”. This includes improving UWM’s culture of treating one another with compassion and respect and having a more equitable approach to non-research/teaching burdens. Moreover, the Task Force stresses the importance of fostering a campus climate that is free of harassment and abuse of any kind, and mentoring faculty so that they understand the policies and expectations related to this issue.

In addition, UWM is committed to promoting Diversity, Equity, and Inclusion in recruiting and retaining top scholars. While the Task Force noted that UWM generally has had a strong commitment to this, the current culture can place a great deal of stress on our colleagues of color. In an attempt to diversify task forces and committees (e.g., search and screen), there seems to be a disproportionate amount of service obligations placed on our colleagues of color. As we work to reduce burdens on all UWM researchers, the Task Force recommends careful consideration of how we create equitable internal service obligations. While it is likely not possible to completely remove these obligations, as UWM increases the number of faculty and staff from underrepresented minorities, the relative burden on individuals can decrease. The Task Force also noted several potential areas for improving the faculty/staff work environment, including ensuring equitable tenure and promotion standards, parental leave equity, and reduced barriers for people with disabilities.

PROCESS

The processes that support UWM’s research enterprise can be broken into three functions; to support, reward, and prioritize research activities.

1. Support

Grants Administration: A strong and effective infrastructure enables researchers to conduct their scholarly work with minimal administrative burden. Robust administrative support structures are critical to their success, and this is an area that UWM researchers have historically perceived as insufficient. This perception was validated by the NCURA reviewers, who also recognized that this is the biggest deficiency in UWM’s research infrastructure. NCURA’s primary recommendation is to greatly strengthen and expand grant administration support at the local level (schools, colleges, and departments).

Mentoring: UWM also needs a more robust and systematic process for supporting junior faculty, fostering a sense of community, and promoting a culture of collaboration. The Task Force recommends placing the UWM Faculty Mentoring program under the leadership of a senior administrator who can create a more coherent structure to support faculty not only in their first year or two but throughout their early career. In Summer 2022, the Associate Dean of the Graduate School spearheaded this effort

in collaboration with the Office of Research, which will allow for better coordination of research workshops with other professional development activities for junior faculty. Thus, the campus has implemented this recommendation prior to the completion of this report.

Campus Research Support Functions: The Task Force also investigated the adequacy of several research-related support structures at UWM, including the UWM Libraries, research compliance functions (IRB, IACUC, Biosafety, Radiation Safety), internal awards, and research computing. The Task Force also explored the need to develop more robust service centers that could integrate service functions such as research design and research computing. A major recommendation of the Task Force related to the affiliated support structures is to stabilize the funding for UWM Libraries, whose ability to provide robust research collections and support services to the campus community is being eroded every year. IRB is also significantly understaffed, which will soon have a major impact on the ability for research projects to commence on a timely basis.

Community-Engaged Research: The Task Force recommends enhancing support for community-engaged research and institutional community partnerships. The goal is to establish partnerships with the community that are mutually beneficial. Specifically, the Task Force recommends creating a community engagement position, potentially within the Office of Research, and ensuring that tenure and promotion criteria are inclusive of efforts to establish community partnerships.

Open Scholarship: Critically, support for open scholarship initiatives could help to align research practices with institutional values and make UWM scholarship more accessible and impactful to a broader academic and community audience. Support might include membership in the Higher Education Leadership Initiative for Open Scholarship (HELIOS) and financial support for publishing in open access venues such as PLOS and other open access journals. Other avenues to prioritize open scholarship could include providing support for publishing costs in faculty start-up funds.

Student-Engaged Research: The Task Force recommends building upon the success of the Office of Undergraduate Research to engage more faculty in serving as mentors and to provide the funding necessary to expand its successful Support for Undergraduate Research Fellows (SURF) program.

Budget Model: To better support research across campus, UWM should also explore changing its current budget model. Under the previous budget model, a portion of F&A returns were retained by the Office of Research to support grant matching and cost share needs. A feature of the current budget model that may inhibit support for research activities is the distribution of 80% of F&A returns to the Schools/Colleges with the remaining 20% retained by central campus. The Task Force recommends re-establishing such a fund (amount to be determined by a detailed needs analysis) in the Office of Research to support campus research infrastructure needs and to develop a centralized pool to support cost-share/match commitments for sponsored projects. Benefits of this adjustment include, for example, a stronger research infrastructure to support the development of institutional-level center and institute proposals. How best to implement such a change was beyond the expertise of this committee, but it is acknowledged this recommendation is challenging because it would directly affect college budgets if these funds derived from their 80% of the F&A returns, and thus a phased or alternate approach may be necessary.

2. Reward

Workload and Tenure & Promotion: Another aspect of process relates to the reward structures in place for researchers. Collaboration, innovation, entrepreneurship, and open scholarship practices need to be better recognized in tenure, promotion, and merit processes. In general, risk-taking and innovation should be more valued in UWM's reward structure. The campus should also better leverage existing resources to promote these activities, such as more actively integrating the Lubar Entrepreneurship Center into campus culture. In addition, the Task Force recognized that reward structures are

inextricably linked to workload, which was the primary focus of the 2030 Workload Implementation Team. Therefore, in-depth discussion of this topic was deferred to that Task Force.

3. Prioritize

Strategic Investment: Process also includes how UWM approaches prioritization. UWM administration has generally been conservative in identifying and actively pursuing strategic areas of opportunity for research. The Task Force believes it is possible to embrace the breadth of activities across all disciplines that define a large research university while also identifying specific themes to drive strategic growth. These may include identifying large-scale “grand research challenges” in areas of national importance such as water, energy, climate change, and public health, as examples. This view is reinforced by the NCURA peer reviewers, who also recommended an institutional research strategy. Another example is strategic cluster hiring in such areas of research emphasis to further grow the UWM’s research expertise and expand opportunities for students to pursue careers in these areas.

PLACE

Space and Equipment

UWM has long had a culture where space and equipment are viewed as belonging to individuals and not to the university community. This has led to inefficient duplication of resources, which is not sustainable going forward. To facilitate sharing and collaboration opportunities, UWM first needs to do a better job of cataloging its research resources (e.g., equipment, labs, computing resources). This will lead to the creation of more core and shared facilities to more optimally align UWM’s limited resources.

Accomplishing this will require rethinking how UWM supports research equipment across campus by transitioning to core facilities where possible. The Task Force also discussed the value of accessible spaces that promote collaboration, although this has been complicated by the transition to more virtual meetings during the COVID pandemic, which appears to be a more permanent change in work practices. The campus should consider how best to leverage its available space to complement the potential for virtual collaborations.

Centers & Institutes

In parallel with developing core facilities, UWM should identify ways to formalize larger-scale collaborative efforts through the development of externally funded centers and institutes (C/Is). C/Is have the potential for strengthening disciplinary programs by providing enabling high levels of research productivity, interdisciplinary course work, offering service-learning opportunities, facilitating certificate programs, supporting degree programs, and providing external visibility for the university. Therefore, the Task Force recommends prioritizing the development of such C/Is. This will require institutional investment in the infrastructure to support C/Is and a process for identifying promising areas of development.

SUMMARY AND RECOMMENDATIONS

A primary theme woven throughout the Task Force's work is that UWM needs to first address its immediate insufficiencies in its research infrastructure before it can meaningfully focus on growth. This includes stabilizing funding for research administration functions and filling critical vacant faculty and staff positions. Once this has been achieved, the campus can work on improving its research infrastructure to strengthen its position for future opportunities. To this end, the Task Force has five major recommendations:

1. Improve the infrastructure for research administration support at the local level. This will require considering how such support would be administratively structured and providing adequate funding.
2. Conduct a campus-wide research equipment survey and identify potential core/shared facilities. These efforts will require sustainable business plans and a rethinking of how campus supports researchers. For example, startup packages could include more funding to buy time in core facilities instead of purchasing new equipment for individual labs.
3. Develop campus-level priorities for future research growth. This could include activities such as strategic cluster hiring or launching grand research challenges in identified areas of potential growth.
4. Build a stronger culture of support, diversity, and inclusion in the research infrastructure by expanding the faculty mentoring program, recognizing collaborative efforts in tenure and promotion, and creating greater equity in teaching and service obligations.
5. Explore options to modify the campus budget model to re-establish a central fund in the Office of Research to support campus-level research initiatives and cost-sharing requirements for sponsored projects.

The Task force believes that collectively these recommendations will position UWM for research growth and will strengthen UWM's status as an R1 university.

Task Force Members

Kris O'Connor (Office of Research, Department of Kinesiology)

AkkeNeel Talsma (College of Nursing)

Andy Graettinger (College of Engineering & Applied Science)

Joel Berkowitz (Department of English/Jewish Studies)

John Reuter (Department of Political Science)

Kathleen Koch (Office of Research)

Michelle Schoenecker (Office of Research)

Ann Hanlon (UWM Libraries)

John Isbell (Department of Geosciences)

Robin Mello (Theater Department)