UWM's Future as an Urban Flagship University: Critical Investments
A Report of the Research Working Group
September 2020

INTRODUCTION

The University of Wisconsin-Milwaukee is Wisconsin's Urban Flagship University. It is one of only two R1 Research Universities in the state and is located in Wisconsin's largest urban center at the heart of the state's metropolitan corridor. Facing unprecedented societal needs and fiscal challenges, the University is revisioning its future as reflected in the introduction to the "Think Tank 2030" report:

> "A research university's mission is to provide a world-class education to its students and to generate and disseminate new knowledge. As a public institution, UWM has a core mission to serve the needs of the city of Milwaukee and southeast Wisconsin by providing a strong talent pipeline, relevant research programs, and outreach to the community. UWM is distinguished by its responsibility to promote social mobility for the people in the city of Milwaukee and surrounding area by providing access to an affordable world-class education."

UWM's ability to meet this core mission flows from its identity as a top-tier research university. Research is an integral part of UWM's identity and needs continual revitalization, as suggested by this report.

Milwaukee plays a central role in Wisconsin's future within a knowledge-based, globalized and multicultural world. This depends upon the continuing development of Wisconsin's urban flagship university, UWM, as a top-tier research university dedicated to serving the needs of the city, region, and state. In 2020, the need for strengthening these relationships has been emphasized by the ongoing COVID-19 pandemic and (more fundamentally) by the increasing local and national recognition of the need for social justice and equality. These two challenges, among others, make clear the importance of expanding collaborative research approaches; translating research into practice and learning opportunities; and infusing entrepreneurial and innovative engagement with the community. By strengthening the University's research identity, we can build a strong research and practice workforce for the future, engage students from diverse backgrounds, and construct a foundation for the University's future contributions to the community.

To develop UWM's research environment, the Research Working Group recommends:

A. Strengthening UWM's brand as a top-tier research university.

B. Intensifying the integration of research into undergraduate academic life.

C. Expanding efforts to promote collaborative research and community-engaged research.

D. Restoring and refocusing faculty and staff hiring and workload expectations to support and enhance research productivity.

E. Strengthening graduate academic programs in traditional and emerging research areas that enhance UWM's position as top-tier research university.

F. Strengthening the University's research infrastructure to support research across all disciplinary and cross-disciplinary fields.

This report builds upon years of research planning (most recently the 2017 "Plan for Research Excellence") and discussions of the Research Development Working Group (sponsored by the Office of Research) during 2019-20. The goal is to highlight the critical changes and investments that are needed now for the University's future as top-tier research university.

RECOMMENDATIONS

A. Strengthen UWM's brand as a top-tier research university

The Working Group recognizes that stabilizing undergraduate enrollments is critical to stabilizing campus funding, thus UWM's research profile should be emphasized in all University "destination campus" marketing efforts. The higher education market is broad and diverse; UWM's combination of R1 status and urban location provides students with a breadth of research, internship, cultural, social, and employment opportunities that is unique in the state. Fortunately, our research excellence can make a strong contribution to undergraduate student recruitment and retention.

1. Brand our identity as Wisconsin's Urban/Metropolitan Flagship University (UWM may want to consider transitioning to "metropolitan" as its descriptor because "urban" may now be too narrow given the campus's dispersed footprint and there may be other advantages to a more expansive term). Within the Midwest, UWM offers the lowest tuition of any R1 institution to complement our urban/metropolitan setting.

2. UWM should implement a cohesive communication strategy focused on top-tier research, top-tier student learning and discovery, and top-tier community engagement. This strategy should be integrated into the campus website, all school and college websites, recruitment materials and tactics, the UWM alumni, and outreach to high school, transfer, and adult students and their advisors.

B. Intensifying the integration of research into undergraduate academic life.

The research brand projects a quality of scholarly and academic excellence that will make us a destination campus for students. It provides excellence in instruction and mentoring richness of experiences to all students. The linkages between research and undergraduate experience must be strengthened to include a wider range of students which will enhance UWM's ability to attract and retain a diverse student body.

1. Institute/expand programs to attract and graduate students from under-served populations, particularly in the STEM and health disciplines. A model example is the [Meyerhoff program](#) at the University of Maryland-Baltimore County.

2. Sustain and develop strong programs that target the impact of research and quality education to the development of undergraduate students, including:
   a. Undergraduate research and Honors experiences.
   b. UWM's high-quality experiences in learning and discovery across the entire range of its programs.
   c. Internships and other opportunities in Milwaukee that expand and enrich the classroom experience.
   d. Opportunities for students of diverse backgrounds (for a strong example, see the "[Go Forward"](#) program in Geosciences).

3. Develop new programs and expand existing programs:
   e. Develop topical undergraduate research areas that appeal to first-generation students.
   f. Expand 5-year combined research-oriented bachelors-masters programs.

C. Expand efforts to promote collaborative research and community-engaged research

The critical issues facing modern society, including climate change, health care and its delivery, social and environmental justice, the role of public health, and the need for equitable economic development increasingly require collaborative research that cuts across traditional boundaries. Addressing such important problems increasingly requires moving toward team approaches. These trends point to the need to expand the development of collaborative research and community-engaged research (as recommended in the 2017 research planning document).

Specific recommendations:

1. Establish 5-7 campus-level research themes that will guide and organize collaboration (e.g., energy, sustainability, drug discovery, underserved populations, health/social innovation). Themes should cut across a wide range of disciplines to include a diverse array of contributions.

2. Require future UWM research centers and institutes to focus on cross-disciplinary and/or collaborative research. These should be centers of intellectual ferment and exchange that bring a wide range of scholars together, not "boutique" operations with narrow foci.

    a. Provide transdisciplinary centers with funding to support buyout/split appointments.

    b. Link university-level fundraising to the establishment of major research centers and institutes that involve partners outside the University. (Recent examples are the Connected Systems Institute and the Northwestern Mutual Data Science Institute.)

3. Make use of UWM's urban/metropolitan setting to develop and increase our research activities with underserved populations, and target faculty and staff recruitment to support these efforts.

4. Develop the identity of "research neighborhoods" that bring together researchers with overlapping research interests.

    a. Hold semi-annual meetings related to these and other areas where faculty are invited to meet and congregate around tables organized by broad research themes (see versions used by Children's Environmental Health Sciences Core Center and the Southeast Wisconsin CTSI-COVID response).

5. Shift resources toward incentivizing collaborative research

    a. Increase funding for internal collaborative research via pilot project research support ($50K – $250K)

    b. Add an additional Research Development position in the Office of Research focused on working closely with faculty to build collaborations.

    c. Implement an administrative culture in which schools and colleges as well as upper administration actively participate in developing collective research as a pillar of our top-tier research university identity.

6. Develop collaborative spaces for group projects (available by the week, semester, or year). An example is UWM's [Digital Humanities Lab](#). The campus sorely lacks spaces for sustained group work.

D. Restore and reform faculty and staff hiring and workload expectations to foster research productivity

The primary threat to UWM's research status is the decreasing number of research-active faculty and staff. Since UWM first entered the Carnegie R1 ranks, the number of faculty has significantly declined (~20%). The Working Group recommends a framework for rebuilding a workforce that can effectively meet the University's needs as a top-tier research university.

1. Hire around campus-level research cluster/themes to build nuclei of researchers in key areas. This will provide some touchstone programs to increase the strength and visibility of the University. These programs should flow from and be part of investments in collaborative research. While not all hires will involve these themes, a significant number will be needed for developing these campus-level themes as described above (part C).

2. Use the academic staff positions of Research Professor and Teaching Professor in developing our workforce. These position titles more appropriately and respectfully identify individuals with these specialized roles within the University. These individuals must be able participate in

decisions about research and teaching programs in their units (as allowed by policy but not consistently done).

3. Implement flexible systems for managing faculty time (i.e., workload policies) that support the University's top-tier research identity. The study group was impressed by the model used in the Physics Department, which sets minimum requirements for research, teaching, and service but also allows variability for work assignments above these minimums. Importantly, the reward structure needs to recognize performance in light of varied assignments.

4. Build into workload evaluation the currently invisible, but significant teaching needed to mentor students (both graduate and undergraduate) in research activity. The Working Group recommends that departments credit the supervision of graduate and undergraduate research as part of teaching obligations. Recognizing that research mentorship is part of teaching will be particularly necessary as the University expands graduate and undergraduate research opportunities.

5. Require Promotion and Tenure decisions to reflect the broad range of modalities and contributions that are part of research activities. Some disciplines limit their considerations to traditional products (e.g., papers, books), which are key contributions, but underrepresent the range of contemporary research practice and reporting. Research is communicated in different ways, collaborative research requires additional skills, and community-based research may present changes in practice. The diverse contributions make it difficult to generalize, but evaluation processes must recognize and reward the full range of research activities.

6. Integrate the establishment of endowed professor positions and other research support into the University's fundraising activities. This will take some effort, given the level of funding required to support these positions.

E. Strengthen graduate programs in traditional and emerging areas of research

Besides the critical need for a strong faculty and researcher staff, graduate students are critical to research programs because they contribute to a well-trained and focused group of developing scholars. Areas that need attention include:

1. Raising graduate stipends so that they are nationally competitive. Past investments have improved our stipends, but they remain short of national norms. To sustain our research excellence, the University needs to be competitive to attract top students.

2. Supporting the Graduate School's efforts to develop an effective suite of professional development programs for graduate students. Several are focused on degree completion (e.g., writing bootcamp, two-minute thesis). Expanding on this, the Graduate School and Office of Research offer a coordinated series of development workshops that touch on a full range of appropriate topics.

3. As traditional disciplines evolve, new cross-disciplinary research problems and fields of study will emerge, which may not fit neatly into our current academic program structure. The Working Group recommends:

    a. Developing flexible degree programs with a transdisciplinary scope and minimum paperwork. Every combination of disciplines does not need to be detailed; the Working Group recommends a general umbrella that can be customized for specific needs. For example, a University team funded by a grant from the National Endowment for the Humanities' NextGenPHD initiative has explored an interdisciplinary humanities PhD focused on "public humanities" and career diversity. One of the stumbling blocks in the conversation was how to actually build such a non-departmental PhD at UWM.

     b. Developing certificates that complement traditional degree programs to help students acquire expertise in data sciences and statistical analyses, among other fields. Alternatively, assure that programs have options to allow students to access such training.

F. Strengthen the research infrastructure to support research across all disciplinary and cross-disciplinary fields

Within the University there are some critical needs for supporting the shifting research landscape. Four stand out at a campus level:

1. Increase support for the UWM Libraries to provide greater access to research materials across all disciplines. With the emergence of new research domains, this need will only grow. One approach may be to explore building targeted collections around new research areas (UW-Madison uses this fundraising strategy with alumni). The Libraries will need to continue providing online access.

2. Establish a Compliance position in the Office of Research to manage the expanding compliance demands from federal sponsors as well as to manage State of Wisconsin and UW System policies regarding sponsored projects. The demand for research compliance expertise has become more acute as the scope of UWM's research expands into export controls and handling sensitive information.

3. Establish a Research Development position in the Office of Research dedicated to the active development and ongoing support of collaborative groups (see B5). This position should work with schools and colleges to organize and report on collaborative work across the University.

4. Establish shared campus equipment/service centers to provide better upkeep and development of the University's array of equipment. The University will also need to implement comprehensive fee structures to sustain the equipment.

CAMPUS CULTURE: VALUING SCHOLARSHIP ACROSS THE UNIVERSITY

Many of the recommendations in this report are based on the vision of scholarly excellence. UWM needs to continue developing a campus culture that makes scholarly excellence the core upon which research, creative expression and other activities are predicated. This culture can be facilitated by linking scholars across disciplinary divides. There has been notable progress in some areas, but this needs to be more directly supported.

Ideas for linking scholars across disciplinary boundaries include:

1. Establishing campus-wide celebrations and recognition of scholarly work and accomplishment.
2. Expanding the audience for research though cross-disciplinary symposia.
3. Bringing cross-disciplinary perspectives into how we educate and train students.

An additional implication is that fundraising efforts should focus on the University's research needs. This will require work with the UWM Foundation to identify donors and funding organizations that are responsive to such an appeal. Potential areas for support include:

1. Student scholarships and fellowships that target specific areas or needs (as is currently being done with the Northwestern Mutual Data Science Center).
2. Topical centers and institutes; recent successes include cross-disciplinary units.
3. Endowed chairs for research faculty.
4. Support for research themes (particularly the UWM Libraries and other research resources).
5. Capital investments, including matching funds from the State of Wisconsin for some projects (UW-Madison's strategy).

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