

**Minutes of the UW System Board of Regents
Education Committee Meeting on
June 8, 2017**

Regent Whitburn convened the meeting of the Education Committee on Thursday, June 8, 2017 at 9:04 a.m. Regents Petersen, Farrow, Klein, Evers, and Tyler were present. Regent Whitburn also introduced Student Regent Ryan L. Ring, who is an undergraduate student at UW-Eau Claire, and who will serve the Board of Regents from May 2017 to May 2019.

Committee Actions

On June 8, 2017, unanimously adopted the April 6, 2017, Meeting Minutes. Motion for approval was made by Regent Farrow, seconded by Regent Tyler, and unanimously approved.

The Committee also approved the following three resolutions:

- **Resolution I.1.b.**, Approval of the Doctoral Degree in Biomedical Data Science at UW-Madison. Motion for approval was made by Regent Farrow, seconded by Regent Klein, and unanimously approved.
- **Resolution I.1.c.**, Approval of UW-Madison's and UW-Milwaukee's Requests to the Vilas Trust Fund. Motion for approval was made by Regent Tyler, seconded by Regent Farrow, and unanimously approved.
- **Resolution I.1.d.**, Approval of the 2017 Report on Faculty Promotions, Tenure Designations, and Other Changes of Status. Motion for approval was made by Regent Tyler, seconded by Regent Farrow, and unanimously approved.

Approval of the Doctoral Degree in Biomedical Data Science at UW-Madison

Speaking in support of the Doctoral Degree in Biomedical Data Science were UW-Madison Provost, Dr. Sarah Mangelsdorf, and Dr. James Keck, Associate Dean, School of Medicine and Public Health, and Professor of Biomolecular Chemistry

This degree program responds to rapid growth in the size and complexity of biomedical data, as well as increased reliance on such data for clinical decision-making, developing public health policy, and advancing basic science. There is a consequent market demand for data science researchers who can design, execute, and analyze biomedical data for clinical, epidemiologic, health services, genetic, and laboratory studies. In addition, this degree represents a multi-disciplinary vision of Biomedical Data Science, because grant funding from the National Institute of Health increasingly requires cross-disciplinary teams that combine quantitative, biological, biomedical, and professional training. Nationally, no other research university has established a similar degree program, although Stanford University endeavors to develop a future program that will be similar to this one. New faculty and staff appointments will not be required to implement this degree, because existing employees will support the instructional, student, and administrative services required for this Ph.D. program.

Regent Whitburn asked: After graduation, where might graduates go, and what might they do?

Dr. Keck responded that graduates can become researchers, professors, or professional leaders at medical records companies, or any company that deals with large datasets of a biomedical bend.

Regent Farrow stated that this program is a perfect example of what we have been telling young people, that what they will be doing upon graduating from college, does not even exist yet. She also stated that upon reading the program authorization materials, she learned that the State of Wisconsin will need 204 professionals in the field of data science, but this program will only graduate 5-6 doctors per year. Thus, Regent Farrow asked whether these graduates are going to train additional people, because this low graduate number will not even begin to meet the need that we have in Wisconsin.

Dr. Keck responded affirmatively, stating that UW-Madison already has a Master's level program and undergraduate degree programs in Data Science. Thus, this degree program will develop the high-end intellectual talent that is needed to train students at both the Master's and undergraduate levels.

Approval of UW-Madison's and UW-Milwaukee's Requests to the Vilas Trust Fund

The Committee approved a request to the trustees of the William F. Vilas Trust Estate for \$6,876,878 for fiscal year 2017-2018. These funds will support student scholarships, student fellowships, academic programs, Vilas Research Professorships, and Vilas Distinguished Achievement Professorships at both UW-Madison and UW-Milwaukee in Biological Sciences, Physical Sciences, Social Sciences, Arts and Humanities, and Music. In addition, the Vilas Trustees have added \$1,134,064.66 to the Special Building Fund this year, as part of the \$5,000,000.00 Vilas pledge in support of the UW-Madison School of Music, which is under construction and slated for completion in December of 2018.

Approval of the 2017 Report on Faculty Promotions, Tenure Designations, and Other Changes of Status

Each spring, the University of Wisconsin System Office of Academic and Student Affairs compiles data on tenure designations, promotions, and new tenured appointments made at the fifteen University of Wisconsin institutions. Based on campus data, the 2017 Report shows that system-wide, Chancellors newly hired, tenured, and promoted 524 faculty members. By providing the UW System Office of Academic and Student Affairs with the names of 524 newly-hired, tenured, and promoted faculty, the Chancellors have provided assurance that they have personally reviewed the dossiers of each faculty member, and they can certify as to the appropriateness of their tenure and promotion. The Board of Regents is required to approve institutional tenure designations, and Regent action is the final step in the process by which faculty receive tenure.

Regent Whitburn reported that 524 faculty members were promoted, including: (a) 53 tenure-track professors who were newly-hired, (b) 212 associate professors who were promoted to the rank of professor, and (c) 259 assistant professors who received first-time tenure promotions. By comparison, in 2016 there was a total of 248 first-time tenure promotions, and in 2015, there was a total of 240 first-time tenure promotions. These data, together with data from 2015 and 2016, demonstrate a healthy tenure and promotion process within the UW System, because on average we have promoted ten percent of our non-tenured faculty on an annual basis.

Report of Vice President for Student and Academic Affairs, James Henderson

Vice President Henderson reported to the Committee on three issues. First, he has achieved progress in establishing a research consortium that will focus on advancing undergraduate research, basic research, and applied technologies related to water in Wisconsin. A chairperson has been named for the Collaborative Council that will create the framework for this research consortium, and he is: Dr. Brian Sloss, Associate Dean of the College of Natural Resources at UW-Stevens Point. Dr. Sloss will lead the Council in achieving four specific goals by September of 2017 to include recommending a governance structure, funding, programmatic goals, and an evaluation timeline for the research consortium.

Vice President Henderson also reported on legislative funding for the UW System. The Joint Finance Committee Biennial Budget Bill includes a provision for \$5 million in FY 2017-18 for an Innovation Fund, which is dedicated to increasing enrollment in high demand programs to include engineering and nursing, because they have the greatest potential for dynamic growth through this immediate investment. In July, Vice President Henderson will bring the final recommendation to the Board for its approval.

Finally, Vice President Henderson reported on a project to revise the UW System Policy on the review of low-producing programs. Currently, only those programs offered by 50% or more of UW System campuses are required to be reviewed, and then only once every five years. Dr. Carleen Vande Zande, Interim Associate Vice President for Academic Programs and Educational Innovation will lead the effort to develop a new policy.

Regent Whitburn asked what will be the likely review process for low-performing, low-enrollment program. Vice President Henderson stated that the process first requires study of each program, analysis of student demand, and then setting targets for improvement. He also stated that it is critical to understand the context for each degree program, and to understand how they fit within the program array for each university. For example, Physics Departments often do not have high enrollment, but Physics coursework is essential for many other majors, including chemistry and biology. Moreover, the State of Wisconsin critically needs high school physics teachers. Thus, even if Physics degree enrollment is low, Physics Departments are critical to the overall success of a university. Hence, it will be critical to look at the context within which each degree program is situated.

Regent Tyler requested that the definition of success for a degree program include outcomes beyond university walls, because sometimes we have degree programs with high enrollment that produce many graduates, but their outcomes are not great. Therefore, we must also look at student outcomes after graduation, not just the impact of degree programs on campus. Vice President Henderson responded by explaining that it can be difficult to measure outcomes beyond university walls, and thus, it would be important to carefully structure and narrowly scope this type of analysis.

Presentation on Math Remediation

Vice President Henderson provided a presentation on the UW System Math Remediation initiatives. The presentation featured math remediation programs at both UW-Milwaukee, as presented by Professor Kyle Swanson, and UW Colleges, as presented by Professor Shubhangi

Stalder.

Vice President Henderson stated three goals for the success of incoming freshman in math courses: (1) Reduce the number of incoming freshman in math remediation courses; (2) Expand the first year completion rate of students enrolled in remediation courses, and (3) Expand student success in first year credit-bearing math courses.

Vice President Henderson also provided three strategies for success: (1) Set a common cut score for math placement tests at every UW Institution; (2) Establish multiple measures for math placement, by looking at additional measures of student success, such as ACT math and reading scores; and (3) Offer co-requisite courses, which reflect a national trend in higher education, whereby students are simultaneously enrolled in both credit-bearing math courses and a supportive math course. This way, the supportive course facilitates student success in the credit-bearing course.

Vice President Henderson reported that UW System institutions are developing math pathways for students, which are tailored to Meta-Majors. Thereby, students could enroll in math courses that are tied to their majors. Vice President Henderson also reported that UW System institutions are partnering with K-12 institutions, and recommending that if students are interested in going to college, then they ought to either take a fourth math course in their senior year of high school, or if not a fourth math course, then they ought to at least wait to take their final high school math course until their senior year of high school. This is because research has demonstrated that students who take math in their senior year achieve higher scores on college math placement exams, and they succeed at higher rates in completing college math courses.

Finally, Vice President Henderson reported that together with the Department of Public Instruction, UW System institutions are striving to increase high school usage of the Early Math Placement Tool, which assists students in college-going success in math.

Regent Petersen asked how many high school seniors enroll in a fourth year of math courses. Regent Evers responded on behalf of the Department of Public Instruction, by saying that they are working to derive this data and he will deliver it to the Education Committee as soon as it is available.

Regent Tyler thanked Vice President Henderson and Professors Swanson and Stalder for reporting on the math remediation initiatives within the UW System. He also asked how we can achieve greater student success, especially at the high school level where there is a scarcity of qualified math teachers.

Vice President Henderson responded by saying that in order to drive student success, we have to have a strong partnership with K-12 institutions. He stated that we must increase the number of highly-trained math teachers, and that this is an imperative role for our higher education institutions. He also stated that it is difficult to find highly-qualified math teachers at the high school level, moreover, under-trained math teachers can do a great deal of harm to student success in mathematics courses.

Regent Whitburn asked Professor Swanson how many students at UW-Milwaukee need remedial math courses, and sought his analysis of the importance of having a consistent math cut score across the UW System. Professor Swanson responded saying that 30% of students need math remediation at UW-Milwaukee, and that UW-Milwaukee led the UW System by reforming its math cut score three years ago, which gives students stability and reduces fear in math placement. Thus, because of the success seen at UW-Milwaukee over the past three years, he wholly supports the system-wide effort to utilize a common math placement test cut score.

Regent Klein stated that we now know what works in terms of student success within math courses, thus, the challenge now is to expand success, such as we have seen at both UW-Milwaukee and the UW Colleges. Accordingly, she asked how do we systematize success across all of our institutions? Vice President Henderson responded that math reform presents a prime example of how we, as a System, can have a broad impact on student success. He also stated that his team is working on a Great Lakes Foundation grant application, which would provide necessary funding to take successful initiatives to scale across our entire system of higher education.

Regent Klein also stated that there is a lack of qualified high school math teachers in Wisconsin, and thus, how do we take advantage of virtual and online learning to make sure we give access to courses? Vice President Henderson responded by saying it is critical to provide high quality math instruction for our K-12 students. Accordingly, UW System institutions are working to increased dual enrollment opportunities for high school students. Thereby, UW colleges and universities send college professors to high school math classrooms, which improves through excellent teaching student success at the high school level.

Presentation on the April 2017 UW System Collaborative Outreach and Recruiting Trip to Northeast China

Regent Mark Tyler introduced UW-River Falls Chancellor Dean Van Galen who provided a presentation, together with Carolyn Brady, UW-River Falls Director of International Partnership and Outreach Programs, on their April 2017 outreach and recruiting trip to Northeast China. By building key partnerships, Regent Tyler entered into a memorandum of understanding with Chinese higher education leaders, which will result in: greater enrollment by international students at UW System institutions, and provision of academic programming for Chinese universities by UW System institutions. UW-Madison Professor Pamela Ruegg concluded the presentation by describing the Nestle Dairy Farming Institute in China. On behalf of UW-Madison, and per a \$1.7 million contract with the Nestle Corporation, Professor Ruegg is leading development of a standardized curriculum for the Training Institute, which trains Chinese dairy farmers in modern, science-based farming practices, and fulfills the Wisconsin Idea by helping to ensure global food needs are met in a safe and sustainable way.

Presentation by Host Campus UW-Milwaukee

Chancellor Mark Mone and Provost Johannes Britz, together with Milwaukee Public Schools Superintendent, Dr. Darienne Driver, and Milwaukee Area Technical College President, Dr. Vicki Martin, completed a presentation entitled: "Closing the Achievement Gap and M³ Update: MPS and MATC Transforming Milwaukee through Education." The presentation focused on the innovative partnership that UW-Milwaukee has developed with MPS and MATC to close the

achievement gap in retention and graduation rates between underrepresented and majority students.

Regent Whitburn thanked the presenters by saying that in Wisconsin, the City of Milwaukee is incredibly important to the success of our State. Therefore, the unique relationship that is evident between UW-Milwaukee, MATC, and MPS will continue to facilitate success on behalf of the people of Milwaukee. Hence, Regent Whitburn personally congratulated Chancellor Mone, President Martin, and Superintendent Driver on their successful partnership.

The meeting was adjourned by Regent Whitburn at 10:36 a.m.

Submitted by Laura A. Dunek
Education Committee Staff