



# UW SYSTEM OUTLOOK

*Emerging ideas and issues in the UW System*

## **Access and Affordability**

The UW System Board of Regents is committed to improving access to a higher education for all students. Part of this commitment is the Board's interest in reducing financial barriers, especially for the most financially needy Wisconsin families, so students can attend a UW campus and pursue their dream of a college education.

In the fall 2006, UW System President Kevin Reilly joined Wisconsin Gov. Jim Doyle and leaders of the Wisconsin Technical College System, the state Department of Public Instruction, and the Wisconsin Association of Independent Colleges and Universities in signing an agreement to implement the "Wisconsin Covenant" – a pledge to all eighth-graders in the state that if they do their part in high school, we'll do our part and guarantee them a spot in higher education and a financial aid package to make it affordable. To learn more about the Wisconsin Covenant, link to the website: <http://wisconsin covenant.wi.gov/section.asp?linkid=1049&locid=124>.

In addition to the Wisconsin Covenant, the partners have launched a college access campaign called KnowHow2GO. Sponsored nationally by the American Council on Education, Lumina Foundation for Education and the Ad Council, KnowHow2GO encourages and prepares low-income students in grades 8-10 to actively pursue higher education.

### ***Essential Financial Aid Programs***

Increasing funding for the Pell Grant and other federal student financial aid programs is essential to keeping a college education accessible to all students. We are thankful the Congress dramatically increased Pell Grant funding and provided reductions in interest rates for student borrowers during the 1<sup>st</sup> session of the 110<sup>th</sup> Congress. We encourage consideration be given to increasing the maximum award to a level that would pay for tuition and fees (\$6,300 on average) at most of the UW four-year institutions. Grant aid continues to be the best way to increase enrollment of students in colleges and universities and keep them enrolled.

We are also committed to increased funding for the campus-based aid programs: Supplemental Education Opportunity Grants, Federal Work-Study, and Perkins Loans. In 2006-07, over 15,000 UW System students received \$10 million in SEOG funds for an average grant of \$649; over 16,000 Perkins Loan recipients in the UW System received an average award of \$2,214.

The UW System strongly supports increased funding for TRIO and GEAR UP, programs that are critical to preparing and supporting students from disadvantaged backgrounds to succeed in higher education. The UW System strongly encourages our congressional leaders to provide greater investment in TRIO and GEAR UP programs that make a considerable difference in college participation rates, especially for students of color and low-income students.

#### UW System Financial Aid Highlights for 2006-07

- A total of 107,103 students received some form of financial aid in 2006-07. This is 63% of all students enrolled in the UW System.
- In 2006-07, federal sources provided 76% of financial aid, down from 84% in 1997-98.
- The Pell Grant program provided \$64.1 million to 25,779 Wisconsin resident undergraduates in 2006-07.
- Pell Grants were awarded to 21% of resident undergraduates in 2006-07. The average grant was \$2,486.
- The average loan debt for a Wisconsin resident who had loan debt at graduation and received a bachelor's degree in 2006-07 was \$21,104.
- The student loan default rate for the UW System was 1.4% in fiscal year 2005, well below the national average of 4.6%.

#### ***Textbook Costs***

Large increases and high costs make it difficult for many needy students to buy textbooks and therefore afford the ongoing costs of college.

The Board of Regents of the UW System recently commissioned a report entitled, "Textbook Costs in Higher Education," to find more cost-effective ways to combat rising textbook prices. Passed by resolution, the Regents required each UW institution to identify planned strategies to reduce textbook costs.

In the future, as Congress examines this issue, UW System stands ready to partner in developing new approaches that balance student cost and operational concerns of the campus community.

## **Academic Research and Student Collaboration**

The educational mission of all UW institutions includes undergraduate and graduate student-faculty collaborative research. The UW System, therefore, appreciates the investment that the Federal government makes in basic and applied research through the National Science Foundation and other key federal research agencies. The UW System also appreciates the investment that the Federal government makes through programs at the U.S. Department of Education and NSF that inspire students and support faculty in developing and testing new curricular models that build capacity for research and innovation.

Toward that end, we continue to support the President's American Competitiveness Agenda and his 10-year goal of doubling the federal investment in research in the physical sciences and engineering at the Department of Energy, Office of Science, and the National Science Foundation. In addition, we support further investments in Science, Technology, Engineering and Mathematics (STEM) education and, in particular, in research opportunities for undergraduate and graduate students to help strengthen the numbers and diversity of students interested in and prepared for the pursuit of advanced scientific studies. We also support programs to make early-career awards to young scientists and engineers.

### ***Foundations for research excellence***

Research and innovation, considered vital to the generation and dissemination of knowledge in the global economy occur naturally at a research university. However, entrepreneurship, technology transfer and the process of turning research into businesses, while newer concepts, also are happening at all institutions across the UW System. These processes are increasingly important because the private sector can only benefit from university research if it is converted into marketable goods and services.

It is also important because undergraduate research benefits students. Undergraduate research attracts students to careers in science and makes them better candidates for such work. The benefits of the undergraduate experience not only accrues to undergraduates, but to our faculty members as well, who cite the personal rewards of working in the lab with students.

Wisconsin's public institutions have had many successful forays in technology transfer and entrepreneurship, especially in recent years, including:

- The partnership between WARF and UW-Madison has resulted in a significant number of high quality faculty start-up companies that have enhanced the economic growth of Dane County and the state;
- Several years ago, at the urging of the president of the UW System, WiSys Technology Foundation (WiSys) was formed to provide technology transfer assistance to the other four-year campuses of the

university system. WiSys has since joined forces with Marshfield Clinic to strengthen collaborations in research and technology transfer;

- UW-Milwaukee is on its way to becoming a major research university by focusing its research on science and engineering and engaging corporate partners to work together with UW-Milwaukee scientists and students to generate research dollars and spin-off new companies; and
- Faculties from the campuses of UW-Stout, UW-River Falls, UW-Eau Claire, and Chippewa Valley Technical College have established a collaborative research consortium. It is an outreach effort to broaden the educational experience of students, enhance the academic and scholarly climate of the region, and provide access for business and industry partners to get the help they need from the UW efficiently and effectively.

The public benefits derived from scholarship and research at UW System universities are numerous, and they continue to grow. From research and development to tech transfer to the commercialization of new technologies, to local economic development to job creation, to better trained students and to attracting bright individuals to Wisconsin, the impact of university research and innovation represent an increasingly important spoke for Wisconsin's overall economic development strategies.

UW System institutions are strongly positioned, through their mission of education, research and outreach, to help maintain our nation's competitive edge.

## **The Future of Water**

Water is essential to life — and water is at the heart of what makes Wisconsin distinct. With 15,000 lakes, 44,000 miles of rivers, and 1.2 quadrillion gallons of groundwater, water is a part of who we are.

Our University of Wisconsin institutions — from UW-Milwaukee on the shores of Lake Michigan, to UW-Superior on the shores of Lake Superior, to UW-La Crosse on the Upper Mississippi River, and our other institutions throughout the state — are dedicated to providing research, education, and outreach to protect our watersheds, make our water cleaner, and conserve our bountiful, but finite water supply.

Our UW System institutions through interdisciplinary research, education, and outreach in partnership with government, public and private interests, and agencies are well-positioned to assist our nation's citizens and institutions. The UW System plays a critical role in development and supporting comprehensive and long-range water research policies that will protect, manage, and sustain our waters over the long-term.

### *Pioneering research, education and outreach*

Wisconsin's waters are assets of inestimable global significance. Wisconsin sits on a great continental divide at the headwaters of the largest freshwater systems in the world—the Great Lakes and the Mississippi River. We are indeed uniquely situated in terms of both geography and obligation. In Wisconsin, we are also fortunate to have a tradition of leadership in science, conservation, and civic engagement to preserve our valuable water assets for generations to come:

- University of Wisconsin-Extension forges unique public-private partnerships to engage citizens, water managers, and university specialists in addressing state and national water resource challenges. Through research at UW-Discovery Farms and Wisconsin Geological and Natural History Survey, to outreach and education through a multi-agency grant program and a network of county-based faculty and basic educators, UW-Extension facilitates a broad range of initiatives addressing water quality, water quantity, and ecosystem health. UW-Extension, with its statewide reach within the UW System, is a national leader in attracting extramural funding for outreach and applied research.
- The University of Wisconsin-Madison provides national leadership in water research and education through applied programs in the College of Agricultural and Life Sciences, the Gaylord Nelson Institute for Environmental Studies, the Water Resources Institute, and the collaborative efforts with UW-Extension via the Environmental Resources Center.
- The University of Wisconsin-Milwaukee Great Lakes WATER Institute is pursuing scientific research, transferring knowledge to the region and the nation and providing a national center for innovative education and training. The Institute is the largest research center of its kind on the Great Lakes and a leader in attracting extramural funding at UWM.
- An integral part of the teaching and research functions of the University of Wisconsin-Superior is the study of aquatic biology and the environment, transportation and logistics of Lake Superior.
- At the University of Wisconsin-La Crosse, the River Studies Center focuses on research and informational programs pertinent to the Upper Mississippi River — playing a pivotal role in helping to manage this precious resource.
- Education and research programs at the University of Wisconsin-Stevens Point, University of Wisconsin-Green Bay, University of

Wisconsin-Oshkosh, and University of Wisconsin-Platteville prepare students by addressing community and regional water challenges.

The water challenges of the future are characterized by higher degrees of complexity and uncertainty: polluted runoff from non–point sources; the spread of aquatic invasive species; impacts of climate change; the recreational and residential demands of a growing human population; the cumulative impacts of contaminants; unsustainable withdrawal of groundwater; maintenance and improvement of our water treatment infrastructure; increased pressures to divert, and even export, Great Lakes waters. These problems involve intricate connections between natural processes, human behavior and economic forces.

Meanwhile, the social, economic, and environmental context in which we make decisions related to water has itself grown more complex and uncertain. To meet the challenges of the future, we will need responses different from the past. Above all, our nation’s citizens and institutions will need to work together in new ways to achieve real results on the ground — and in the water.

## **Biofuels/Bioenergy**

The UW System stands to be a national leader in advancing bioenergy research and discovery. The UW System Board of Regents was awarded \$125 million through a cooperative agreement with the U.S. Department of Energy in September, 2007 for the Great Lakes Bioenergy Research Center on the UW-Madison campus. The award is for five years, and the federal dollars that come to the UW-Madison campus will be spent on research in five major areas: improved plant biomass, improved biomass processing, conversion of biomass into energy products, development of a sustainable energy economy, and development of enabling technologies for bioenergy research.

This grant will leverage not only the leadership of UW-Madison, but the hundreds of faculty, staff and students working on projects related to bioenergy across the UW System in disciplines that encompass biology, agriculture, engineering, natural resources and the social sciences. UW Scientists across the state are generating new knowledge that will help expand our potential to harness microbial and plant systems for cost-effective renewable energy production.

### ***Wisconsin Bioenergy Initiative***

The University of Wisconsin System launched its Wisconsin Bioenergy Initiative (WBI), jointly led by Dean Molly Jahn of UW-Madison's College of Agricultural and Life Sciences, and Dean Christine Thomas of UW-Stevens Point's College of Natural Resources. The initiative is an exciting and first-of-its-kind public-private partnership that showcases and builds on the UW System's considerable efforts in bioenergy research, outreach and training, and fosters state and local efforts to attract and support companies working in the bioenergy sector.

The partnership includes the educational, industrial and public sectors, and serves as a point of coordination between colleges at all of the UW campuses and state agencies.

### ***Going "green"***

In 2006 and again in early 2008, UW System brought together faculty, state officials and private industry experts to discuss bioenergy and biofuels, present and future initiatives, research and development, and opportunities for collaboration. Several faculty members presented about their current bio-energy related research, and members from the Great Lakes Bioenergy Research Center spoke about the Center's goals, resources and projects.

The state is also working to become the nation's leader in energy independence and to create thousands of jobs for Wisconsin. In 2007, Gov. Doyle created a new Office of Energy Independence to advance his vision on energy policy and promote the state's bioindustry. Gov. Doyle set a goal for Wisconsin to generate 25 percent of its power and transportation fuels from renewable sources by 2025. The Governor also announced that four University of Wisconsin System institutions will be part of a pilot program to become energy independent by 2012.

Information about the WBI initiative and other UW System initiatives can be accessed at <http://www.uwcalscommunication.com/category/deans-introduction/>.